Appendix A
Notice of Preparation

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

Arnold Schwarzenegger
Governor

Sean Walsh
Director

Notice of Preparation

January 25, 2006

To: Reviewing Agencies

Re: Sakioka Farms Specific Plan
SCH# 2002071070

Attached for your review and comment is the Notice of Preparation (NOP) for the Sakioka Farms Specific Plan draft Environmental Impact Report (EIR).

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

Please direct your comments to:

Christopher Williamson
City of Oxnard
305 West Third Street
Oxnard, CA 93030

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

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

Sincerely,

for Scott Morgan
Project Analyst, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2002071070
Project Title Sakioka Farms Specific Plan
Lead Agency Oxnard, City of

Type **NOP** Notice of Preparation

Description The Sakioka Farms Specific Plan would replace the current zoning of the 430-gross acre site and provide the framework, guidelines, standards, and regulations for orderly phased development of a current agricultural site over a number of years. In 2002 an NOP was issued based upon a prior develpment proposal. The EIR for this project was not certified and no activity was taken to pursue approval of the Specific Plan project.

The applicant is now seeking approval of an EIR for the Specific Plan project area based upon a revised development proposal. The uses contemplated within the current Specific Plan document are not significantly different from the 2002 proposal. However, the residential component of the Specific Plan has been removed.

Lead Agency Contact

Name Christopher Williamson
Agency City of Oxnard
Phone 805 385-7858 **Fax**
email
Address 305 West Third Street
City Oxnard **State** CA **Zip** 93030

Project Location

County Ventura
City Oxnard
Region
Cross Streets Del Norte Boulevard/Rice Ave.
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways 101/Ventura Freeway
Airports
Railways
Waterways
Schools
Land Use Commercial (25 acres); Light Industrial (252 acres); Business/Research (91 acres); Office (20 acres); Fire Station (1 acre); Park (3 acres)

Project Issues Landuse; Aesthetic/Visual; Agricultural Land; Biological Resources; Geologic/Seismic; Air Quality; Noise; Population/Housing Balance; Water Quality; Traffic/Circulation; Public Services; Toxic/Hazardous

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Reviewing Agencies Caltrans, Division of Aeronautics; Department of Conservation; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 5; Native American Heritage Commission; California Highway Patrol; Caltrans, District 7; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 4

Date Received 01/25/2006 **Start of Review** 01/25/2006 **End of Review** 02/23/2006

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

NOP Distribution List

County: Ventura

SCH# 2006071070

Resources Agency

- [x] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  David Johnson
- [ ] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Gerald R. Zimmerman
- [x] **Dept. of Conservation**
  Roseanne Taylor
- [ ] **California Energy Commission**
  Roger Johnson
- [ ] **Dept. of Forestry & Fire Protection**
  Allen Robertson
- [x] **Office of Historic Preservation**
  Wayne Donaldson
- [x] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **Reclamation Board**
  DeeDee Jones
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [x] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou
- [ ] ____________
  Conservancy

Fish and Game

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

Other Departments

- [ ] **Food & Agriculture**
  Steve Shaffer
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Robert Sleppy
  Environmental Services Section
- [ ] **Dept. of Health Services**
  Veronica Rameriz
  Dept. of Health/Drinking Water

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Debby Eddy
- [ ] **Office of Emergency Services**
  Dennis Castrillo
- [ ] **Governor's Office of Planning & Research**
  State Clearinghouse
- [x] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Ken Lewis
- [ ] **State Lands Commission**
  Jean Sarino
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Business, Trans & Housing

- [ ] **Caltrans - Division of Aeronautics**
  Sandy Hesnard
- [ ] **Caltrans - Planning**
  Terri Pencovic
- [x] **California Highway Patrol**
  John Olejnik
  Office of Special Projects
- [ ] **Housing & Community Development**
  Lisa Nichols
  Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Katherine Eastham
- [ ] **Caltrans, District 4**
  Tim Sable
- [ ] **Caltrans, District 5**
  David Murray
- [ ] **Caltrans, District 6**
  Marc Birnbaum
- [x] **Caltrans, District 7**
  Cheryl J. Powell
- [ ] **Caltrans, District 8**
  Dan Kopulsky
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Mario Orso
- [ ] **Caltrans, District 12**
  Bob Joseph

Cal EPA

Air Resources Board

- [ ] Airport Projects
  Jim Lerner
  - [ ] Transportation Projects
    Kurt Karperos
  - [ ] Industrial Projects
    Mike Tollstrup
- [ ] **California Integrated Waste Management Board**
  Sue O'Leary
- [ ] **State Water Resources Control Board**
  Jim Hockenberry
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] **State Water Resouces Control Board**
  Steven Herrera
  Division of Water Rights
- [x] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**

Regional Water Quality Control Board (RWQCB)

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

Last Updated on 08/10/05

NOTICE OF PREPARATION

To: Place Mailing Label Here

From: City of Oxnard
305 West Third Street
Oxnard, CA 93030

Contact: Sue Martin,
Planning and Environmental Services Manager

Subject: *Re-issuance* of Notice of Preparation (NOP)
of a Draft Environmental Impact Report
for the Sakioka Farms Specific Plan Project
(State Clearinghouse Number 2002071070)

The City is reissuing the NOP for the Sakioka Farms Specific Plan project to reflect the current development proposal. The City of Oxnard will be the Lead Agency and will prepare an environmental impact report for the project identified below. The City has determined in its initial review that an EIR is clearly required for the project, so an initial study is not required to be prepared pursuant to Section 15063 (a) of the CEQA Guidelines. 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. Your agency will need to use the EIR prepared by our agency when considering permit or other approval for the project.

The project description, location, and the potential environmental effects are described below.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but not later than 30 days after the receipt of this notice.

Please send your response to Kathleen Mallory, AICP, Project Planner, at the address shown above. Agency responses to this NOP should include the name, address, and phone number of the person who will serve as the primary point of contact for this project within the commenting agency.

Project Title: Sakioka Farms Specific Plan

Project Location: The Sakioka Farms Specific Plan project is proposed for a 430-gross acre area in the northeastern portion of the City of Oxnard. The City of Oxnard lies in the Oxnard Plain of Ventura County. The proposed project site is located immediately south of U.S. Highway 101/Ventura Freeway, north of an existing industrial area and the Procter and Gamble facility and east of Rice Avenue. Del Norte Boulevard bisects the eastern part of the project site. The project site is located entirely within the existing boundaries of the City of Oxnard.

Project Description: The Sakioka Farms Specific Plan would replace the current zoning of the 430-gross acre site and provide the framework, guidelines, standards, and regulations for orderly phased development of a current agricultural site over a number of years. In 2002 an NOP was issued based upon a prior development proposal. The EIR for this project was never certified and no activity was taken to pursue approval of the Specific Plan project.

The applicant is now seeking approval of an EIR for the Specific Plan project area based upon a new development proposal. The uses contemplated within the current Specific Plan document are not significantly different from the 2002 proposal. However, the residential component of the Specific Plan has been eliminated. The following table provides a breakdown of the proposed land uses based upon the October 2004 Draft Specific Plan:

Current - October 2004 Sakioka Farms Draft Specific Plan Proposal		
Land Use	**Net Acres (per Exhibit 4.8 of 2004 SP)**	**Sq. Ft.**
Commercial	25 acres	100,000 sq. ft.
Light Industrial	252 acres	5,500,000 sq. ft.
Business/Research	91 acres	2,500,000 sq. ft.
Office	20 acres	400,000 sq. ft.
Fire Station	1.0 acre	n/a
Park	3.0 acres	n/a
Total	**392 net acres**	**Total Square Footage: 8,500,000 sq ft.**

Topics Identified for Study in this EIR: Pursuant to Section 15060 of the CEQA Guidelines, the City has completed a preliminary review of the proposals for this project and has determined that an EIR should be prepared. The following issue areas constitute the most significant potential environmental impacts and will be address in the EIR.

1. Land Use and Planning
2. Agricultural Resources
3. Aesthetics/Visual Resources
4. Biological Resources
5. Cultural Resources
6. Geology, Soils, and Seismicity
7. Hazards and Hazardous Materials
8. Hydrology and Water Quality
9. Traffic and Circulation
10. Air Quality
11. Noise
12. Population and Employment
13. Public Services and Utilities

Date: January ____, 2006 Signature ______________________________

Title: Planning and Environmental Services Manager

Telephone: (805) 385-7858

Reference: California Code of Regulations, Title 14, (CEQA Guidelines), Section 15082(a), 15103, 15375.

Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, CA 95814

County of Ventura
Resource Management Agency
Planning Division
800 South Victoria Avenue
Ventura, CA 93009
Attn: Joseph Eisenhut

Environmental Planning Branch
State Department of Transportation
120 South Spring Street
Los Angeles, CA 90012

Agricultural Commissioner
County of Ventura
P.O. Box 889
815 E. Santa Barbara Street
Santa Paula, CA 93061

South Coast Area Transit
301 East Third Street
Oxnard, CA 93030
Attn: Laura Caskey
Director of Planning & Marketing

City of Port Hueneme
Community Development Department
250 North Ventura Road
Port Hueneme, CA 93041

City of Camarillo
Department of Planning and Community Development
601 Carmen Drive
Camarillo, CA 93011-0248

Melissa Hernandez
Archaeological Cultural Consultants
P.O. Box 6612
Oxnard, CA 93031

County of Ventura
Air Pollution Control District
800 South Victoria Avenue
L# 4951
Ventura, CA 93004
Attn: Chuck Thomas

Calif Dept. of Fish and Game
District 5
4949 Viewridge
San Diego, CA 92123
Attn: Regional Director

Verizon Communications
1 Verizon Way
Mail Code: CA 500 VK
Thousand Oaks, CA 91362

Oxnard Union High School District
309 South "K" Street
Oxnard, CA 93030
Attn: Louis Cunningham
Director of Facilities & Safety

Ventura County Transportation Commission
950 County Square Drive, Suite 207
Ventura, CA 93003
Attn: Executive Director

United Water Conservation District
106 North Eighth Street
Santa Paula, CA 93060

California Department of Transportation
Division of Aeronautics
1120 N Street
Sacramento, CA 94273-0001

U.S. Fish and Wildlife Service
2493 Portola Road, Suite B
Ventura, CA 93003
Attn: Chris Dellith

California Indian Council Federation
1222 Potter Ave.
Thousand Oaks, CA 91360

SCAG
818 W. Seventh St., 12th Floor
Los Angeles, CA. 90012

Ventura County Star
Attn: Raul Hernandez
5250 Ralston St.
Ventura, CA 93003

County of Ventura
Department of Airports
555 Airport Way
Camarillo, Ca 93010
Attn: Director of Airports

Department of Toxic Substances Control
1011 N. Grandview Ave.
Glendale, Ca. 91201

Adelphia
Attn: Steven Waters
721 Maulhardt Ave.
Oxnard, CA 93030

La Vida Newspaper
P.O. Box 427
Oxnard, CA 93030

Calleguas Water District
Attn: Don Kendall
2100 Olsen Road, Thousand Oaks
Thousand Oaks, CA 91360

State of California Department of Conservation
801 K Street
Sacramento, CA 95814

Oxnard Water District
Attn: Anthoy Emmert
251 S. Hayes Avenue
Oxnard, CA 93030

Native American Heritage Commission
915 Capitol Mall, Rm. 364
Sacramento, CA 95814

Procter and Gamble
External Relations Manager
800 N. Rice Avenue
Oxnard, CA 93030

Rio School District
Attn: Director of School Facilities
3300 Cortez Street
Oxnard, CA 93030

Metropolitan Water District
Attn: Laura Simonek
P.O. Box 54153
Los Angeles, CA 90054-0153

Department of Transportation
District 7, Regional Planning
120 So. Spring Street
Los Angeles, CA 90012

The Gas Company
P.O. Box 2300
Chatsworth, CA 91313-2300

Mr. Jeffrey Littell
Sakioka Farms
3183-A Airway Avenue, Suite 2
Costa Mesa, CA 92626

County of Ventura
Watershed Protection District
800 S. Victoria Ave.
Ventura, CA 93009-1610

Environmental Coalition of Ventura
P.O. Box 68
Ventura, CA 93002

Ventura County Cultural Heritage Board
c/o Planning Division
800 S. Victoria Ave.
Ventura, CA 93009

Regional Water Quality Control Board
Los Angeles Region (4)
320 W. Fourth St., Ste. 200
Los Angeles, CA 90013

California Public Utilities Commission
Attn: Energy Division
505 Van Ness Ave.
San Francisco, CA 94102-3298

Ventura County Reporter
1567 Spinnaker Dr., Suite 202
Ventura, CA 93001

Southern California Gas Company
9400 Oakdale Ave.
Chatsworth, CA 91313-2300

U.S. Army Corp of Engineers
Regulatory Program, Ventura Office
2151 Alessandro Dr., Ste. 255
Ventura, CA 93001

U.S. Fish & Wildlife Service
2493 Portola Rd., Ste. B
Ventura, CA 93003

Naval Air Station Point Mugu
Commanding Officer
Code 6001
Point Mugu, CA 93042

Naval Construction Battalion Center
Commanding Officer
1000 23 Ave.
Port Hueneme, CA 93043-4301

Southern California Edison Company
Tony Wilson, Resource Manager
10060 Telegraph Rd.
Ventura, CA 93004

NOTICE OF PREPARATION

To: City of Oxnard
305 West Third Street
Oxnard, CA 93030

Contact: Marilyn Miller
Planning and Environmental Services Manager

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

Contact: Michael Brown
Senior Manager

Subject: Notice of Preparation of a Draft Environmental Impact Report for the Sakioka Farms Specific Plan Project

The City of Oxnard will be the Lead Agency and will prepare an environmental impact report for the project identified below. 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. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study (☒ is ☐ is not) attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but not later than 30 days after the receipt of this notice.

Please send your response to Gary Sugano, Principal Planner, at the address shown above. Agency responses to this NOP should include the name, address, and phone number of the person who will serve as the primary point of contact for this project within the commenting agency.

Project Title: Sakioka Farms Specific Plan

Project Location: The Sakioka Farms Specific Plan project is proposed for a 430-acre area in the northeastern portion of the City of Oxnard. The City of Oxnard lies in the Oxnard Plain of Ventura County. The proposed project site is located immediately south of U.S. Highway 101/Ventura Freeway, north of an existing industrial area and the Procter and Gamble facility and east of Rice Avenue. Del Norte Boulevard bisects the eastern part of the project site. The project site is located entirely within the existing boundaries of the City of Oxnard.

Project Description: The Sakioka Farms Specific Plan would replace the current zoning of the 430-acre site and provide the framework, guidelines, standards, and regulations for orderly phased development of a current agricultural site over a number of years. Maintaining consistency with the *City of Oxnard 2020 General Plan*, especially in terms of land use and intensity, the maximum proposed build out is 8,500,000 square feet of a mixture of light industrial, business and research and related uses. In addition, the Specific Plan proposes to include the option for use of the "Mixed-Use Overlay" described in the General Plan. Extension of Gonzales Road eastward across Del Norte Boulevard to the City boundary would provide the division of proposed business research park use (130 acres) to the north and light industrial uses (300 acres) to the south. The Specific Plan divides the site into seven Planning areas with purpose of recognizing development phasing patterns, market conditions and establishing sufficient flexibility for provision of a variety of activities.

Date: July 12, 2002

Signature: for Marilyn Miller
Title: Planning and Environmental Services Manager
Telephone: (805) 385-7858

Reference: California Code of Regulations, Title 14, (CEQA Guidelines), Section 15082(a), 15103, 15375.

ENVIRONMENTAL CHECKLIST FORM

(Initial Study per CEQA Guidelines Appendix G as amended January 1, 2002)

CITY OF OXNARD **DATE:** July 12, 2002

I. PROJECT INFORMATION

1. Project Title:

Sakioka Farms Specific Plan

2. Lead Agency Name and Address:

City of Oxnard
305 West Third Street
Oxnard, California 93030

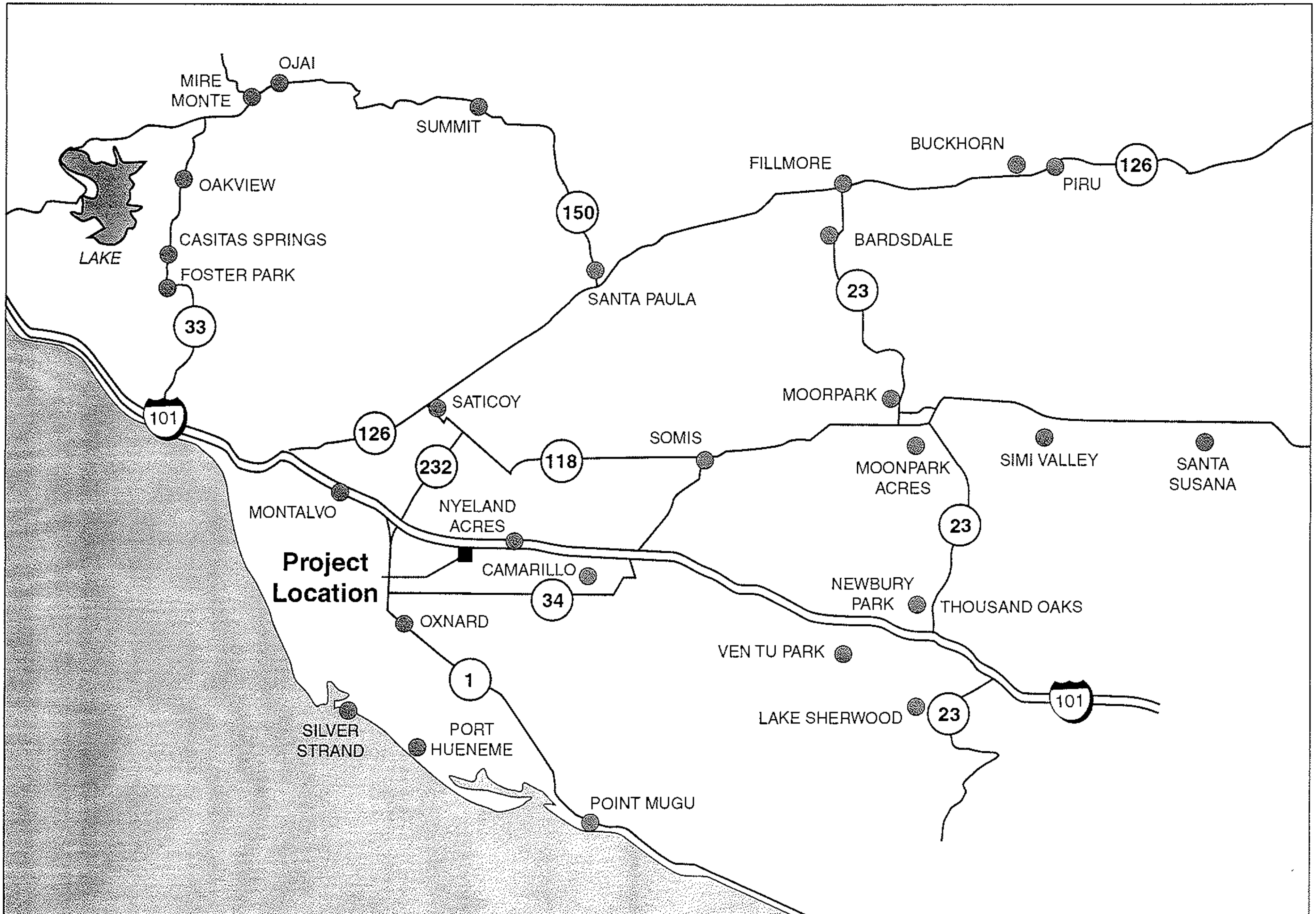
3. Contact Person and Phone Number:

Gary Sugano
Principal Planner
City of Oxnard Planning and Environmental Services
Telephone: (805) 385-7412
Facsimile: (805) 385-7417

4. Project Location:

The Sakioka Farms Specific Plan project is proposed for a 430-acre area in the northeastern portion of the City of Oxnard. The City of Oxnard lies in the Oxnard Plain of Ventura County. The proposed project site is located immediately south of the U.S. Highway 101/Ventura Freeway, north of an existing industrial area and the Procter and Gamble facility and east of Rice Avenue. Del Norte Boulevard bisects the eastern part of the project site. The project site is located entirely within the existing boundaries of the City of Oxnard.

Refer to Figures 1 and 2.



Not to Scale

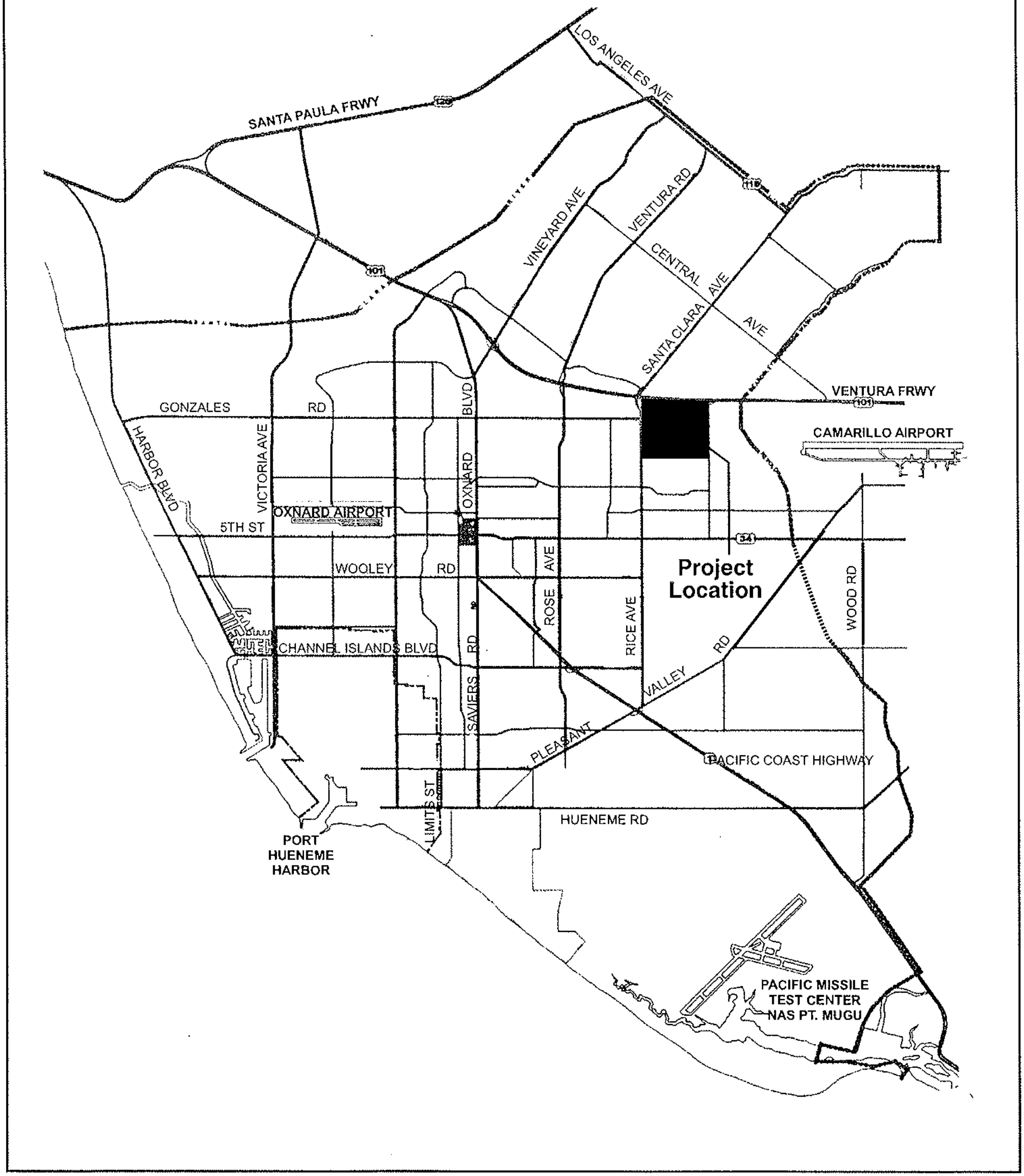
SOURCE: EIP Associates

10662-00

EIP ASSOCIATES

FIGURE 1
Regional Location

City of Oxnard



Not to Scale

SOURCE: EIP Associates

10662-00

EIP ASSOCIATES

FIGURE 2

Local Setting

City of Oxnard

5. Project Applicant's Name and Address:

Sakioka Farms
3183-A Airway Avenue, Suite 2
Costa Mesa, California 92626
Contact: Jeffrey Littel

6. General Plan Designation(s) for the Project Site:

Business and Research Park and Light Industrial

7. Zoning Designation(s) for the Project Site:

Business Research Park (BRP) and Light Industrial

8. Custodian of the administrative record for this Project:

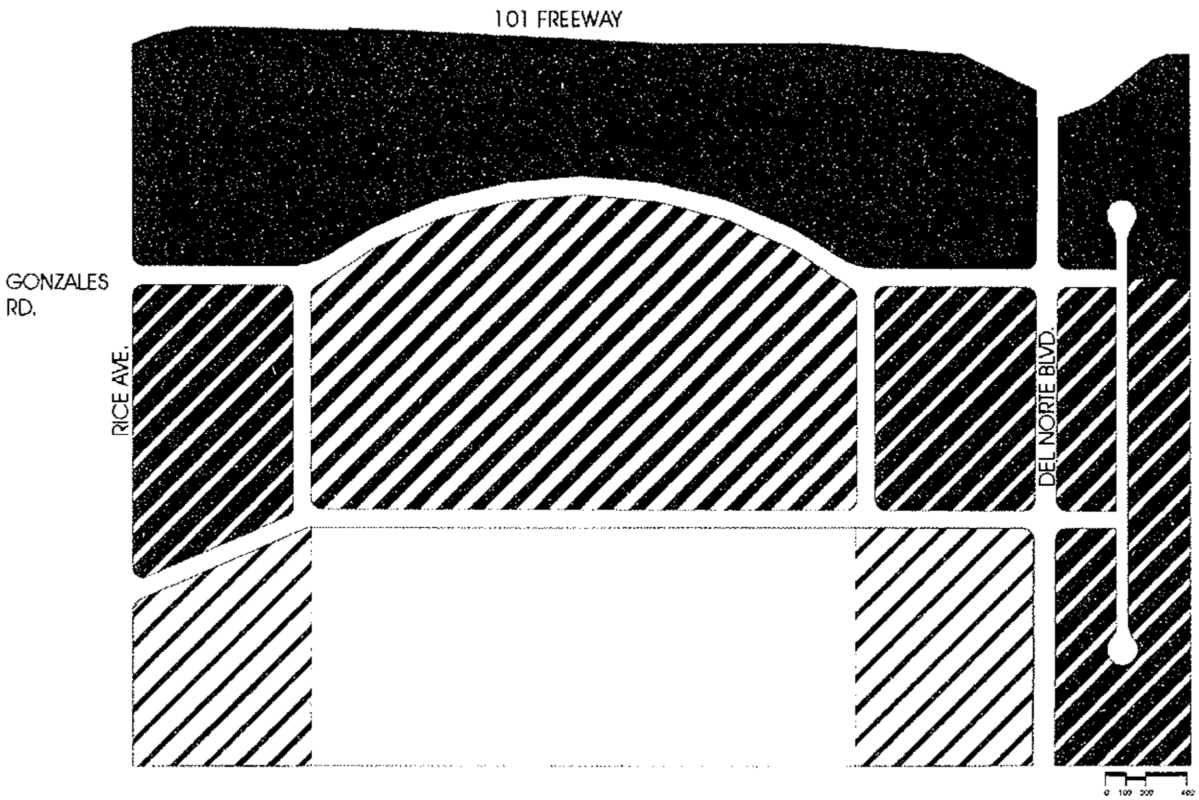
City of Oxnard Planning and Environmental Services
Telephone: (805) 385-7858
Facsimile: (805) 385-7417

II. PROJECT DESCRIPTION

1. Project Description:

The Sakioka Farms Specific Plan would provide the framework, guidelines, standards, and regulations for orderly phased development of a current agricultural site over a number of years. Maintaining consistency with the *City of Oxnard 2020 General Plan*, especially in terms of land use and intensity, the maximum proposed build out is 8,500,000 square feet of a mixture of light industrial, business, and research and related uses. In addition, the Specific Plan proposes to include the option for use of the "Mixed-Use Overlay" described in the General Plan. Extension of Gonzales Road eastward across Del Norte Boulevard to the City boundary would provide the division of proposed business research park use (130 acres) to the north and light industrial uses (300 acres) to the south. The Specific Plan divides the site into seven Planning areas with purpose of recognizing development phasing patterns, market conditions and establishing sufficient flexibility for provision of a variety of activities.

Refer to Figure 3.



	NET ACRES	F.A.R.	APPROX. SQ. FT. (MIL)
BUSINESS RESEARCH	110	0.5	2.3
LIGHT INDUSTRIAL	100	0.5	2.2
BUSINESS RESEARCH/LIGHT INDUSTRIAL	185	0.5	4.0
	395	———	8.5

Not to Scale

SOURCE: EIP Associates

10662-00

EIP

FIGURE 3

Project Site Plan

City of Oxnard

2. ***Surrounding Land Uses and Setting:***

The proposed project site is bordered on the north by U.S. Highway 101/Ventura Freeway. An eclectic mix of older commercial uses and residential units are located north of the freeway. The site is bordered on the south by existing industrial uses – including the Proctor and Gamble paper manufacturing plant – and one vacant parcel. The eastern border of the site is generally located along the City boundary, beyond which is agricultural land and commercial uses along Highway 101. Del Norte Boulevard bisects the eastern part of the project site. The site is bordered on the west by Rice Avenue. Existing ligbt industrial buildings are located west of Rice Avenue.

The entire 430-acre project site is currently used for agricultural production.

3. **Discretionary Approvals:**

The City of Oxnard will prepare an EIR to address all state, regional, and local government approvals needed for construction and/or implementation of the project, whether or not such actions are known at this time or are explicitly listed in this Initial Study. The approvals that are anticipated include, but are not necessarily limited to, the following:

City of Oxnard

- Certification of an Environmental Impact Report
- Approval of the proposed Sakioka Farms Specific Plan

Los Angeles Regional Water Quality Control Board

- National Pollutant Discharge Elimination System General Construction Permit (for individual developments within the Specific Plan area)

Caltrans

- Encroacbment Permits

III. PURPOSE OF THE INITIAL STUDY

The City of Oxnard has determined that an EIR must be prepared to evaluate the potential environmental impacts associated with the proposed project. Therefore, as identified in Section 15063(c) of the *CEQA Guidelines*, the purpose of this Initial Study checklist is to: (1) inform responsible agencies and the public of the nature of the proposed project and its location, (2) identify potential environmental impacts that would clearly be less than significant and therefore will not be discussed in the EIR, and (3) provide a general description of the topics intended to be addressed in the EIR.

This Initial Study generally utilizes the checklist set forth in Appendix G of the *CEQA Guidelines*, and indicates for each of the environmental topic areas addressed in that checklist whether the topic will be, or will not be, analyzed in the EIR. Impacts for which no additional analysis is required include impacts that clearly would not result from construction or operation of the project, as well as impacts that would clearly be less than significant under CEQA criteria. The impacts to be analyzed include impacts that may be significant and unavoidable, impacts that are potentially significant but may be reduced to less than significant levels through the adoption of mitigation measures, and impacts for which further analysis is necessary or desirable before a determination of significance can be made. As appropriate, the analysis will include a program-level analysis for the Specific Plan and a cumulative-level analysis for potential effects of project implementation combined with known and reasonably foreseeable future growth in the surrounding area.

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

☒ Aesthetics/Visual Resources	☒ Agriculture Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geotechnical Resources
☒ Hazards & Hazardous Materials	☒ Hydrology and Water Quality	☒ Land Use and Planning
☐ Mineral Resources	☒ Noise	☒ Population, Housing, and Employment
☒ Public Services	☐ Recreation	☒ Traffic and Circulation
☒ Utilities/Service Systems/Energy	☒ 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.

for	July 12, 2002
Signature	*Date*
Marilyn Miller	**Planning and Environmental Services Manager**
Printed Name	*Title*

V. EVALUATION OF ENVIRONMENTAL IMPACTS:

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

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

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

Response Column Heading Definitions

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

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

B. ***No Additional Analysis required*** applies where implementation of the proposed Specific Plan would have no effect on the particular environmental issue, and no additional analysis, beyond that provided in this Initial Study, is warranted or required.

IMPACT QUESTIONS

1. AESTHETICS/VISUAL RESOURCES — Would the project:

	Impact to be Analyzed in EIR	No Additional Analysis Required
a) Have a substantial adverse effect on a scenic vista?	☒	☐

The proposed project site is visible from U.S. Highway 101/Ventura Freeway, Rice Avenue, and Del Norte Boulevard. Implementation of the Specific Plan would alter the scenic characteristics of the site from agricultural to urban uses.

	Impact to be Analyzed in EIR	No Additional Analysis Required
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☒

Neither the existing structures (sheds) nor sparse trees located within the project site are considered to be scenic resources. None of the surrounding travel routes – including U.S. Highway 101/Ventura Freeway – adjacent to the project site are designated as scenic highways. No additional analysis is required.

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

The proposed project site is visible from the U.S. Highway 101/Ventura Freeway, Rice Avenue, and Del Norte Boulevard. Implementation of the Specific Plan would alter the scenic characteristics of the site from agricultural to urban uses.

	Impact to be Analyzed in EIR	No Additional Analysis Required
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☒	☐

Implementation of the proposed project would increase the amount of light in the area, including along the freeway frontage.

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

The proposed project site is located on level terrain approximately 65 feet above mean sea level. The site is underlain by very deep (thousands of feet) deposits of gravel, sand, silt, and clay of the Santa Clara River alluvial fan complex in the Ventura Basin. The soils generally are of deep, rich, loamy texture and are classified as Farmlands of Statewide Importance. Implementation of the proposed project would covert the site from agricultural to urban uses. It should be noted that the City's 2020 General Plan anticipated conversion of the Sakioka property to urban land uses within the term of the 2020 General Plan.

	Impact to be Analyzed in EIR	No Additional Analysis Required
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☒	☐

The proposed uses would be consistent with the existing General Plan and Zoning designations for the site. However, the project site may currently receive benefits under a Williamson Act contract.

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

Implementation of the proposed project would not result in the conversion of farmland not located within the project boundaries to non-agricultural use. No additional analysis is required.

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

The U.S. Environmental Protection Agency has designated Ventura County as a severe non-attainment area for the federal ozone standard. The California Air Resources board also classifies it as a severe non-attainment area for the state ozone standard. Levels of fine particulate matter also

	Impact to be Analyzed in EIR	No Additional Analysis Required

exceed standards throughout Ventura County. Implementation of the proposed project would generate new sources of air pollutant emissions that could obstruct implementation of the Air Quality Management Plan for Ventura County.

	Impact to be Analyzed in EIR	No Additional Analysis Required
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐

Implementation of the proposed project would generate new sources of air pollutant emissions. The daily levels of these emissions could exceed the thresholds of significance recommended by the Ventura County Air Pollution Control District (APCD).

	Impact to be Analyzed in EIR	No Additional Analysis Required
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 daily levels of these emissions could exceed the thresholds of significance recommended by the APCD for cumulative impacts.

	Impact to be Analyzed in EIR	No Additional Analysis Required
d) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐

Traffic volumes generated by the proposed project could increase localized concentrations of carbon monoxide at intersections in the project vicinity. Sensitive receptors may be located near these intersections.

	Impact to be Analyzed in EIR	No Additional Analysis Required
e) Create objectionable odors affecting a substantial number of people?	☒	☐

The proposed land uses have the potential to generate odors that could be observed on the site and in the surrounding areas.

4. **BIOLOGICAL RESOURCES** — Would the project:

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

The proposed project is an active and highly maintained open agricultural field. It is not a viable habitat for endangered, threatened, or rare species. The project site does not support any locally designated species or natural communities. However, the project site could provide foraging opportunities for raptor species.

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

The proposed project is an active and highly maintained open agricultural field. It does not support any riparian habitat or other sensitive natural community. No additional analysis is required.

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

The proposed project is an active and highly maintained open agricultural field. It does not support any federally protected wetlands or other sensitive natural community. No additional analysis is required.

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 proposed project site is surrounded by urban uses including the U.S. Highway 101/Ventura Freeway, and, therefore, does not function as a wildlife movement corridor. No additional analysis is required.

e) Conflict with any local applicable policies protecting biological resources?	☐	☒

The proposed project site does not support any biological resources that would be addressed by the plans and policies of the City of Oxnard 2020 General Plan. Because the site is an active and highly maintained open agricultural field, project development would not conflict with other federal and state plans, policies, laws, and regulations, such as the Migratory Bird Treaty Act, that are relevant to biological resources in Ventura County. No additional analysis is required.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan?	☐	☒

The proposed project site is not located within the area designated for any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan. No additional analysis is required.

	Impact to be Analyzed in EIR	No Additional Analysis Required
5. CULTURAL RESOURCES — Would the project:		
a) **Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?**	☐	☒

The two structures (sheds) located at the project site are not considered historically significant. No additional analysis is required.

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

Areas within Ventura County may be considered archaeologically sensitive, as the Chumash group of Native Americans was known to have inhabited settlements throughout the County. The highly disturbed nature of the agricultural fields substantially reduces the probability of finding intact archaeological deposits at the site. However, the presence of archaeological resources, including human remains, is a possibility.

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

The proposed project site is underlain by very deep (thousands of feet) deposits of gravel, sand, silt, and clay of the Santa Clara River alluvial fan complex in the Ventura Basin. These deposits are not known to have paleontological resources. No additional analysis is required.

d) **Disturb any human remains, including those interred outside of formal cemeteries?**	☒	☐

Areas within Ventura County may be considered archaeologically sensitive, as the Chumash group of Native Americans was known to have inhabited settlements throughout the County. The highly disturbed nature of the agricultural fields substantially reduces the probability of finding intact archaeological deposits at the site. However, the presence of archaeological resources, including human remains, is a possibility.

	Impact to be Analyzed in EIR	No Additional Analysis Required

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:**

	Impact to 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.**	☒	☐

Although the project site is not located within an identified Alquist-Priolo zone, the site lies in an area with active and/or potentially active faults in the surrounding region. Some of these faults may extend into the subsurface beneath the City. The Springville and Simi Faults as well as the Camarillo Fault system are nearest the project site and are identified within the *Oxnard 2020 General Plan* as being potentially active. Therefore, seismic activity on regionally active faults could result in surface rupture.

	Impact to be Analyzed in EIR	No Additional Analysis Required
ii) **Strong seismic ground shaking?**	☒	☐

As with all southern California, the project site is expected to experience ground shaking from earthquake activity, that is most likely associated with the faults in the surrounding area, in the future.

	Impact to be Analyzed in EIR	No Additional Analysis Required
iii) **Seismic-related ground failure, including liquefaction?**	☒	☐

The *Oxnard 2020 General Plan* identifies the northern and western portions of the site as having high to moderate liquefaction potential due to the shallow depth of the water table within the Oxnard Plain.

	Impact to be Analyzed in EIR	No Additional Analysis Required
iv) **Landslides?**	☐	☒

The relatively level terrain of the City of Oxnard minimized the potential for landslides. The project site is also generally flat in nature. No further analysis is required.

	Impact to be Analyzed in EIR	No Additional Analysis Required
b) **Result in substantial soil erosion or the loss of topsoil?**	☐	☒

Grading for the project is expected to be minimal. Therefore, soil erosion or loss of topsoil associated with the proposed project would be considered less than significant.

	Impact to 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?	☒	☐

Refer to Response 6.a.iii, above, for a discussion of liquefaction.

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

The *Oxnard 2020 General Plan* does not contain discussion regarding the area or project site's probability for expansion. Therefore, further analysis is required.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☒

Septic tanks or other alternative wastewater disposal systems would not be used for the project. Therefore, no impacts would occur.

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?	☒	☐

Hazardous materials may be used or stored during construction or operation of the proposed project.

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?	☒	☐

Hazardous materials may be used or stored during construction or operation of the proposed project.

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

The proposed project site is not located within one-quarter mile of any existing or planned school facilities. No further analysis is required.

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

The project site is not located on any list of hazardous materials sites. No further analysis is required.

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?	☒	☐

Although the site is located near both the Camarillo and Oxnard Airports, it is not located within the protected zones of either airport. Project implementation is not expected to result in any abnormal or significant safety hazard for the employees of the project site. Additional analysis will be provided in the DEIR.

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 project site is not located within the vicinity of a private airstrip. No further analysis is required.

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

The proposed access to Del Norte Boulevard, Rice Avenue, and the U.S. Highway 101/Ventura Freeway would provide emergency access to the site and surrounding areas. Additional emergency access to the project site would be provided by the extension of Gonzales Road eastward across Del Norte Boulevard to the City boundary. The project would not interfere with any existing emergency response plans. No further analysis is required.

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 proposed project site is surrounded by urban uses including the U.S. Highway 101/Ventura Freeway, and not located adjacent to a wildland area. No additional analysis is required.

	Impact to be Analyzed in EIR	No Additional Analysis Required
8. HYDROLOGY AND WATER QUALITY — Would the project:		
a) Violate any water quality standards or waste discharge requirements?	☒	☐

Implementation of the proposed project would result in an increase of impermeable surface area, which could produce additional urban runoff. Construction activities could cause short-term impacts to water quality.

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)?	☐	☒

Water is presently provided to the site by wells on site. This water is only used for on site agriculture, not potable uses. It is not used for any off site applications, and the site is not used to recharge local aquifers. As part of the project implementation, most of these water wells would be abandoned and capped, and potable water would be supplied by the City of Oxnard. One well may be retained and added to the City's water supply system. No additional analysis is required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☒

Because the project site is relatively flat and is proposed to remain that way, the existing pattern of drainage would not be substantially altered. The project site would be covered with paving, landscaping, and buildings, which would not be subject to erosion. No additional analysis is required.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteratiou 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?	☐	☒

Because the project site is relatively flat and is proposed to remain that way, the existing pattern of drainage would not be substantially altered. The project site would be covered with paving, landscaping, and buildings, which would not be subject to flooding. No additional analysis is required.

	Impact to be Analyzed in EIR	No Additional Analysis Required
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?**	☒	☐

Paving, landscape, and building construction on a previously undeveloped site would change absorption rates and the rate and amount of surface runoff. A potential increase in surface water runoff could exceed the capacity of existing systems in the project vicinity.

	Impact to be Analyzed in EIR	No Additional Analysis Required
f) **Otherwise substantially degrade water quality?**	☒	☐

Refer to Responses 8.a, 8.b, 8.c, and 8.e, above.

	Impact to be Analyzed in EIR	No Additional Analysis Required
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 proposed project does not entail any residential uses. Therefore, no impacts would occur. No further analysis is required.

	Impact to be Analyzed in EIR	No Additional Analysis Required
h) **Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?**	☐	☒

According to the *City of Oxnard 2020 General Plan*, the proposed project site is not located within a 100-year flood hazard area. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps, the western portion of the project site is designated as Zone C, an area of minimal to no flooding hazard, and the eastern portion is designated as Zone B, an area with chances of minimal flooding up to one foot in depth during 500-year flood event. This zoning indicates that the area is subject to minimal flooding and that it is not located within a 100-year flood hazard area. No further analysis is required.

	Impact to be Analyzed in EIR	No Additional Analysis Required
i) **Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?**	☐	☒

The project site is not located near any body of water, such as an ocean, lake, or reservoir, in which a dam or levee failure could occur. No further analysis is required.

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

According to the *City of Oxnard 2020 General Plan*, the project site is not located in an area of tsunami or seiche potential. No further analysis is required.

	Impact to be Analyzed in EIR	No Additional Analysis Required
9. LAND USE AND PLANNING — Would the project:		
a) Physically divide an established community?	☐	☒

The proposed project would consist of light industrial, office, and commercial infill on a site surrounded by similar uses. In addition, no residential units are near the site. Therefore, there would be no division of an established community with implementation of the proposed project. No further analysis is required.

	Impact to 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 general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☒	☐

The proposed project is consistent with the existing General pan and zoning designations for the site. Therefore, a direct conflict with the City's plans for the site would not occur. Additionally, the project would likely be considered by the Southern California Association of Governments (SCAG) to be regionally significant. The project would be analyzed for consistency with applicable policies of SCAG's Regional Comprehensive Plan and Guide (RCPG) and Regional Transportation Plan (RTP).

	Impact to be Analyzed in EIR	No Additional Analysis Required
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☒

Refer to Response 4.f, above.

	Impact to be Analyzed in EIR	No Additional Analysis Required
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 *City of Oxnard 2020 General Plan* does not identify any important mineral resources on the project site. Therefore, no impacts to mineral resources are anticipated. No further analysis is required.

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

No mineral resource recovery activities occur at the project site, and no such sites are delineated in the *City of Oxnard 2020 General Plan*. No additional analysis is required. Refer also to Response 10.a, above.

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

Future buildings within the Specific Plan area would be exposed to noise levels from surrounding roadway and land uses. These noise levels could exceed City standards for the proposed land uses.

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

Construction activities could result in generation of excessive groundborne vibration or groundborne noise levels.

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

Increases in traffic, mechanical equipment associated with new structures, and increases in human activity at the site could result in potential long-term increases in noise levels in the vicinity of the project site.

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

Operation of construction equipment could result in substantial short-term noise increases in the project vicinity.

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?	☐	☒

Although the site is located near both the Camarillo and Oxnard Airports, it is not located within the 60 dBA CNEL or greater noise contours of either airport. Thus, project implementation would not expose on-site employees to excessive aircraft noise levels. No additional analysis is required.

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

The project site is not located within the vicinity of a private airstrip. No further analysis is required.

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

The project could induce population growth in the Oxnard area. Although no new residences are proposed, additional commercial and light industrial uses associated with the proposed project could lead to increased daytime population. The extension of utilities to these businesses and offices would also be required.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☒

The project site does not contain any dwelling units. Therefore, no such impact would occur. No further analysis is required.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☒

Refer to response 11.b, above.

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:

i) Fire protection?	☒	☐

The proposed project would increase the demand for fire protection services within the City of Oxnard.

ii) Police protection?	☒	☐

The proposed project would increase the demand for police protection services within the City of Oxnard.

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

The proposed project does not include any residential uses that would directly increase the population within the City and the associated number of students attending local schools. Non-residential developments can, however, indirectly increase the number of students attending local schools when students attend schools close to parents' places of employment. This potential impact is mitigated to less than significant levels by payment of the mandatory school impact fees. No further analysis is required.

	Impact to be Analyzed in EIR	No Additional Analysis Required
iv) Parks?	☐	☒

The proposed project does not include any residential uses that would increase the population within the City and the associated demand for public parks and recreation facilities. Therefore, no impact would occur. No further analysis is required.

	Impact to be Analyzed in EIR	No Additional Analysis Required
v) Other public facilities?	☐	☒

The proposed project does not include any residential uses that would increase the population within the City and the associated demand for other public facilities such as libraries and art centers. No further analysis is required.

14. RECREATION

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

The proposed project does not include any residential uses that would increase the population within the City and the associated demand for public parks and recreation facilities. Therefore, no impact would occur. No further analysis is required.

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

Recreational facilities are neither a proposed nor required component of the Specific Plan. Therefore, no impact would occur. No further analysis is required.

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

As described above in Responses 13.a.iv and 14.a, the proposed project does not include any residential uses that would increase the population within the City and the associated demand for public parks and recreation facilities. Therefore, no impact would occur. No further analysis is required.

15. TRANSPORTATION/ TRAFFIC — Would the project:

	Impact to be Analyzed in EIR	No Additional Analysis Required
a) **Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?**	☒	☐

Development and operation of the proposed project would increase the amount of vehicular traffic in the surrounding vicinity and could potentially cause traffic congestion and/or exceed the capacity of intersections and freeway ramps.

	Impact to be Analyzed in EIR	No Additional Analysis Required
b) **Exceed, either individually or cumulatively, a level of service standard established by the connty congestion management agency for designated roads or highways?**	☒	☐

Traffic generated by the proposed project could exceed the level of service standard established by the Ventura County Congestion Management Program.

	Impact to be Analyzed in EIR	No Additional Analysis Required
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?**	☐	☒

Development associated with the proposed project is not anticipated to change air traffic patterns for Oxnard, Camarillo, or any other airport. No additional analysis is required.

	Impact to be Analyzed in EIR	No Additional Analysis Required
d) **Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**	☐	☒

The proposed project would be served by Rice Avenue, Del Norte Boulevard, and a proposed extension of Gonzales Road. The existing roads meet all City standards for roadway safety. The roadways associated with the project would also have to be constructed in accordance with City safety standards. Any potential impacts would be less than significant. No additional analysis is required.

	Impact to be Analyzed in EIR	No Additional Analysis Required
e) **Result in inadequate emergency access?**	☐	☒

The proposed project would be reviewed by various City departments to ensure that its design features fully comply with City standards for emergency access. Any potential impacts would be less than significant. No additional analysis is required.

	Impact to be Analyzed in EIR	No Additional Analysis Required
f) **Result in inadequate parking capacity?**	☒	☐

On and off-street parking will be analyzed within the DEIR.

	Impact to 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)?	☒	☐

The proposed project may not comply with City plans and policies supporting alternative transportation.

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

	Impact to be Analyzed in EIR	No Additional Analysis Required
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☒

Additional wastewater treatment services may be required to accommodate the proposed project. In accordance with State law, however, any such increases in wastewater treatment services must comply with wastewater treatment requirements of the applicable Regional Water Quality Control Board. Therefore, any such impacts would be less than significant. No additional analysis is required.

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

Additional wastewater treatment services may be required to accommodate the proposed project.

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

New drainage facilities would be constructed throughout the project site and may impact the existing drainage characteristics in the project vicinity.

	Impact to be Analyzed in EIR	No Additional Analysis Required
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☒	☐

The proposed project would increase the demand for potable water supplies within the City of Oxnard.

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

Refer to Response 16.b, above.

	Impact to be Analyzed in EIR	No Additional Analysis Required
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☒	☐

The proposed project would increase the amount of solid waste sent to solid waste disposal facilities in Ventura County and surrounding areas.

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

The proposed project would be subject to all City requirements related to the reduction of solid waste being sent to landfills. Individual uses within the project would also be subject to all applicable statutes and regulations related to the storage and disposal of hazardous waste materials. Additional analysis will be provided in the DEIR to determine consistency with City policies pertaining to solid waste.

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

Development of proposed project would result in the consumption of additional energy, including electricity and natural gas.

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?	☒	☐

Based on the preceding discussions, the proposed project has the potential to significantly impact the local environment. Impacts to any of the above issue areas described for which significant impacts have been identified could be considered to affect the quality of the environment.

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)?	☒	☐

The impacts identified as having the potential to significantly impact the quality of the local environment have the potential to also be cumulatively considerable.

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

As the proposed project has been identified as having the potential to be individually and cumulatively significant, it may have significant adverse effects on human beings.

VI. REFERENCES

Camarillo, City of. *Camarillo Airport: Airport Master Plan.*

Coffman Associates. *Camarillo Airport: F.A.R. Part 150 Noise Compatibility Study.*

Federal Emergency Management Agency. 1998. Flood Insurance Rate Maps. Los Angeles, California.

Langdon Wilson Architecture Planning Interiors. April 2002. *Sakioka Farms, Oxnard, California: Specific Plan Amended Project Description.*

Oxnard, City of. November 1990. *City of Oxnard 2020 General Plan.*

State of California. 1998. CORTESE Hazardous Site Listings.

Thomas Bros. Maps. 2002. *Santa Barbara, San Luis Obispo, and Ventura Counties.*

Appendix B
Response to Notice of Preparation

DEPARTMENT OF TRANSPORTATION
DIVISION OF AERONAUTICS – M.S.#40
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-4959
FAX (916) 653-9531
TTY (916) 651-6827

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PLANNING DIVISION
CITY OF OXNARD

Flex your power!
Be energy efficient!

February 16, 2006

Mr. Christopher Williamson
City of Oxnard Planning and Environmental Services
305 West Third Street
Oxnard, CA 93030

Dear Mr. Williamson:

Re: City of Oxnard's Re-issuance of a Notice of Preparation for a Draft Environmental Impact Report for Sakioka Farms Specific Plan; SCH# 2002071070

The California Department of Transportation (Caltrans), Division of Aeronautics (Division), reviewed the above-referenced document with respect to airport-related noise and safety impacts and regional aviation land use planning issues pursuant to the California Environmental Quality Act (CEQA). The Division has technical expertise in the areas of airport operations safety, noise and airport land use compatibility. We are a funding agency for airport projects and we have permit authority for public and special use airports and heliports. The following comments are offered for your consideration.

The proposal is for a rezone of a 430 gross acre (392 net acres) area in the northeastern portion of the City of Oxnard. The October 2004 (current) Sakioka Farms Draft Specific Plan includes 25 acres Commercial, 252 acres Light Industrial, 91 acres Business/Research, 20 acres Office, 1.0 acre Fire Station and 3.0 acres Park.

The project site is located approximately 4,500 feet west of the Camarillo Airport. Camarillo is an active airport with approximately 552 based-aircraft and over 203,000 annual operations. The project will be subject to aircraft overflights.

CEQA, Public Resources Code Section 21096, requires the Caltrans Airport Land Use Planning Handbook (Handbook) be utilized as a resource in the preparation of environmental documents for projects within an airport land use compatibility plan boundaries or, if such a plan has not been adopted, within two miles of an airport. The Handbook is a resource that should be applied to all public use airports and is published on-line at http://www.dot.ca.gov/hq/planning/aeronaut/.

Protecting people and property on the ground from the potential consequences of near-airport aircraft accidents is a fundamental land use compatibility-planning objective. While the chance of an aircraft injuring someone on the ground is historically quite low, an aircraft accident is a high consequence event. The potential severity of an off-airport aircraft accident is highly dependent upon the nature of the land use at the accident site. To protect people and property on the ground from the risks of near-airport aircraft accidents, some form of restrictions on land use are essential. The two principal methods for reducing the risk of injury and property damage on the ground are to limit the number of persons in an area and to limit the area covered by occupied structures. The Handbook identifies six airport safety zones based on risk levels. The project site appears to be within Safety Zones 4 and 6 as defined in the Handbook. Safety Zone 4 or Outer Approach/Departure Zone is situated along the extended runway centerline with approaching aircraft usually at less than traffic pattern altitude. Airport-related noise, safety and land use concerns should be thoroughly addressed in the Draft Environmental Impact Report.

Public Utilities Code, Section 21659 "Hazards Near Airports Prohibited" prohibits structural hazards near airports. In accordance with Federal Aviation Regulation, Part 77 "Objects Affecting Navigable Airspace" a Notice of Proposed Construction or Alteration (Form 7460-1) may be required by the Federal Aviation Administration (FAA). Please note the FAA also requires submission of a completed Form 7460-2 Part 1 at least 48 hours prior to starting the actual construction. Form 7460-1 is available at http://forms.faa.gov/forms/faa7460-1.pdf. Form 7460-2 is available at http://forms.-faa.gov/forms/faa7460-2.pdf.

Section 11010 of the Business and Professions Code and Sections 1102.6, 1103.4, and 1353 of the Civil Code (http://www.leginfo.ca.gov/calaw.html) address buyer notification requirements for lands around airports. Any person who intends to offer land for sale or lease within an *airport influence area* is required to disclose that fact to the person buying the property.

Land use practices that attract or sustain hazardous wildlife populations on or near airports can significantly increase the potential for wildlife-aircraft collisions. The Federal Aviation Administration (FAA) recommends that landfills, wastewater treatment facilities, surface mining, wetlands and other uses that have the potential to attract wildlife, be restricted in the vicinity of an airport. FAA Advisory Circular (AC) 150/5200-33A entitled "Hazardous Wildlife Attractants on or Near Airports" at http://faa.gov/airports_airtraffic/airports/resources/advisory_circulars/media/150-5200-33A/150_5200_33a.pdf addresses these issues.

A portion of the project site is within the Extended Traffic Pattern Zone (ETPZ) according to the Ventura County Airport Comprehensive Land Use Plan (ACLUP). The proposal should be submitted to the Ventura County Airport Land Use Commission (ALUC) for a consistency determination. The proposal should also be coordinated with Camarillo Airport staff to ensure that the proposal will be compatible with future as well as existing airport operations.

Aviation plays a significant role in California's transportation system. This role includes the movement of people and goods within and beyond our state's network of over 250 airports. Aviation contributes nearly 9 percent of both total state employment (1.7 million jobs) and total state output ($110.7 billion) annually. These benefits were identified in a recent study, "Aviation in California: Benefits to Our Economy and Way of Life," prepared for the Division of Aeronautics which is available at http://www.dot.ca.gov/hq/planning/aeronaut/. Aviation improves mobility, generates tax revenue, saves lives through emergency response, medical and fire fighting services, annually transports air cargo valued at over $170 billion and generates over $14 billion in tourist dollars, which in turn improves our economy and quality-of-life.

The protection of airports from incompatible land use encroachment is vital to California's economic future. Camarillo Airport is an economic asset that should be protected through effective airport land use compatibility planning and awareness. Although the need for compatible and safe land uses near airports in California is both a local and a State issue, airport staff, airport land use commissions and airport land use compatibility plans are key to protecting an airport and the people residing and working in the vicinity of an airport. Consideration given to the issue of compatible land uses in the vicinity of an airport should help to relieve future conflicts between airports and their neighbors.

These comments reflect the areas of concern to the Division of Aeronautics with respect to airport-related noise and safety impacts and regional airport land use planning issues. We advise you to contact our District 7 Office in Los Angeles at (213) 897-3656 concerning surface transportation issues.

Thank you for the opportunity to review and comment on this proposal. If you have any questions, please call me at (916) 654-5314.

Sincerely,

Sandy Hesnard

SANDY HESNARD
Aviation Environmental Specialist

c: State Clearinghouse, Camarillo Airport, Ventura County ALUC

STATE OF CALIFORNIA ARNOLD SCHWARZENEGGER, *Governor*

PUBLIC UTILITIES COMMISSION
320 WEST 4TH STREET, SUITE 500
LOS ANGELES, CA 90013

RECEIVED
FEB 22 2006
PLANNING DIVISION
CITY OF OXNARD

February 17, 2006

Christopher Williamson
City of Oxnard
305 West Third Street
Oxnard, CA 93030

Dear Mr. Williamson:

Re: SCH# 2002071070; Sakioka Farms Specific Plan

As the state agency responsible for rail safety within California, we recommend that any development projects planned adjacent to or near the Union Pacific Railroad Company right-of-way be planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at at-grade highway-rail crossings. This includes considering pedestrian circulation patterns/destinations with respect to railroad right-of-way.

Safety factors to consider include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade highway-rail crossings due to increase in traffic volumes and appropriate fencing to limit the access of trespassers onto the railroad right-of-way.

The above-mentioned safety improvements should be considered when approval is sought for the new development. Working with Commission staff early in the conceptual design phase will help improve the safety to motorists and pedestrians in the City.

Please advise us on the status of the project. If you have any questions in this matter, please contact me at (213) 576-7078 or at rxm@cpuc.ca.gov.

Sincerely,

Rosa Muñoz, PE
Utilities Engineer
Rail Crossings Engineering Section
Consumer Protection & Safety Division

C: Richard Gonzales, UP

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7, REGIONAL PLANNING
IGR/CEQA BRANCH
100 MAIN STREET, MS # 16
LOS ANGELES, CA 90012-3606
PHONE: (213) 897-3747
FAX: (213) 897-1337

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PLANNING DIVISION
CITY OF OXNARD

Flex your power! Be energy efficient!

IGR/CEQA No. 060130AL
Sakioka Farms Specific Plan
Vic. VEN-101, PM 20.05
SCH #: 2002071070

February 6, 2006

Christopher Williamson, AICP
Planning and Environmental Services
City of Oxnard
305 West Third St.
Oxnard, CA 93030

Dear Ms. Williamson:

Thank you for including the California Department of Transportation (Caltrans) in the review process for the City's proposed Specific Plan that includes a mixed use of up to 8,500,000 square feet of commercial, light industrial, business/research, and office space. We have reviewed the proposed Program and have the following comments.

The California Department of Transportation (Caltrans) as the State agency responsible for planning, operations, and maintenance of State highways, shares similar transportation goals with the City.

"Caltrans is particularly interested in the transportation planning roles of local general plans and suggests that the following areas be emphasized.

- Coordination of planning efforts between local agencies and Caltrans districts.
- Preservation of transportation corridors for future system improvements; and
- Development of coordinated transportation system management plans that achieve the maximum use of present and proposed infrastructure."

New development will increase use of local and regional roadways and the circulation element can identify strategies the City will pursue to maintain good levels of service. We ask the City to consider implementing a funding program to contribute to contribute to improvements to the State highway system. Usually, when local matching funds are offered improvements can be streamlined and/or expedited.

We request inclusion in the environmental review process of land use projects and all projects that have the potential to significantly impact traffic conditions on State highways.

The thresholds for significance on State highway facilities are different than those applied in the Los Angeles County Management Program (CMP). For State thresholds and guidance on the preparation of acceptable traffic studies, please refer to the Statewide Guide for the preparation of Traffic Impact Studies at:

http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tisguide.pdf

and we list here some elements of what we generally are expecting in the traffic study:

1. Presentations of assumptions and methods used to develop trip generation, trip distribution, choice of travel mode, and assignments of trips to State Route 101 and 01.

2. Consistency of project travel modeling with other regional and local modeling forecasts and with travel data. The IGR/CEQA office may use indices to check results. Differences or inconsistencies must be thoroughly explained.

3. Analysis of ADT, AM and PM peak-hour volumes for both the existing and future conditions in the affected area. This should include freeways, interchanges, and intersections, and all HOV facilities. Interchange Level of Service should be specified (HCM2000 method requested). Utilization of transit lines and vehicles, and of all facilities, should be realistically estimated. Future conditions would include build-out of all projects (see next item) and any plan-horizon years.

4. Inclusion of all appropriate traffic volumes. Analysis should include traffic from the project, cumulative traffic generated from all specific approved developments in the area, and traffic growth other than from the project and developments. That is, include: existing + project + other projects + other growth.

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

    - Description of Transportation Infrastructure Improvements
    - **Financial Costs, Funding Sources and Financing**
    - Sequence and Scheduling Considerations
    - Implementation Responsibilities, Controls, and Monitoring

    Any mitigation involving transit, HOV, or TDM must be rigorously justified and its effects conservatively estimated. Improvements involving dedication of land or physical construction may be favorably considered.

6. Specification of developer's percent share of the cost, as well as a plan of realistic mitigation measures under the control of the developer. The following ratio should be estimated: additional traffic volume due to project implementation is divided by the total increase in the traffic volume (see Appendix "B" of the Guidelines). That ratio would be the project equitable share responsibility.

    We note for purposes of determining project share of costs, the number of trips from the project on each traveling segment or element is estimated in the context of forecasted traffic volumes which include build-out of all approved and not yet approved projects, and other sources of growth. Analytical methods such as select-zone travel forecast modeling might be used.

The Department as commenting agency under CEQA has jurisdiction superceding that of MTA in identifying the freeway analysis needed for this project. Caltrans is responsible for obtaining measures that will off-set project vehicle trip generation that worsens Caltrans facilities and hence, it does not adhere to the CMP guide of 150 or more vehicle trips added before freeway analysis is needed. MTA's Congestion Management Program in acknowledging the Department's role, stipulates that Caltrans must be consulted to identify specific locations to be analyzed on the State Highway System. Therefore State Route(s) mentioned in item #1 and its facilities must be analyzed per the Department's Traffic Impact Study Guidelines.

If significant impacts are anticipated on the State highway system the Department would work with the City and applicants to identify appropriate traffic mitigation measures.

Additionally, we recommend the City include vehicular demand reducing strategies, such as incentives for commuters to use transit i.e. park-and-ride lots, discounts on monthly bus and rail passes, vanpools, etc. Other strategies may include transit- oriented development.

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

If you have any questions, please feel free to contact me at (213) 897-3747 or Alan Lin the project coordinator at (213) 897-8391 and refer to IGR/CEQA No. 060136AL.

Sincerely,

Cheryl J Powell

CHERYL J. POWELL
IGR/CEQA Program Manager

cc: Scott Morgan, State Clearinghouse

SOUTHERN CALIFORNIA
EDISON
An EDISON INTERNATIONAL Company

DATE: March 15, 2006

COMPANY: Christopher A. Joseph & Associates
31255 Cedar Valley Drive Suite 222
Westlake Village, CA 91362

SUBJECT: Project Site N. Rice Ave

Dear: Ms Bennett,

This is to advise that the subject property is located within the service territory of the Southern California Edison Company (SCE) and that the electrical loads of the project are within parameters of projected load growth which SCE is planning to meet in this area.

Our total system demand is expected to continue to increase annually; however, excluding any unforeseen problems, our plans for new distribution resources indicate that our ability to serve all customers' loads in accordance with our rules and tariffs will be adequate during the decade of the 2000's.

Current conservation efforts on the part of SCE customers have resulted in energy savings. Optimization of conservation measures in this project will contribute to the overall energy savings goal.

If you have any additional questions, please feel free to call me at (805)654-7476

Sincerely,

Lee Canley AP

Lee Canley
Service Planner

AP/LC

Planning Dept.
10060 Telegraph Rd.
Ventura, CA 93004

Sakioka Farms EIR Questionaire

1. Fire Station 5 is the first responder to this area. It is located at 1450 Colonia Road. All six of the other stations would serve this area if needed.

   Station 1
   491 S. K St.

   Station 2
   531 E. Pleasant Valley Rd.

   Station 3
   150 Hill St.

   Station 4
   230 W. Vineyard Ave.

   Station 5
   1450 Colonia Rd.

   Station 6
   2601 Peninsula Rd.

   Station 7
   3300 Turnout Circle Dr.

2. One captain, engineer, and firefighter for Stations 2, 3, 4, 5and 7.
   One Battalion Chief, two captains, two engineers, and three firefighters for Station 1.
   One captain, engineer, and three firefighters for Station 6.
   All personnel are EMTs. The crew at Station 7 is Haz Mat trained.

3. Station 1 has a fire engine, ladder truck, command vehicle, aircraft crash truck and USAR truck.
   Stations 2,3,4 and 5 have a fire engine.
   Station 6 has a fire engine, rescue vehicle and water rescue vehicle.
   Station 7 has a fire engine and a Haz Mat truck.

4. Desired response distance from the nearest fire station is 1.25 miles.
   None our fire stations are within that distance to this development.

5. It is unknown what the average response time to this development is currently since no development is currently in the area.

6. Minimal due to lack of development.

7. The standard response time standard from the National Fire Protection Agency is a driving time of 4 minutes for emergency medical calls. For a structure fire all units for the call should arrive within 7 minutes. These times should be met ninety per cent of the time.

8. See number seven.

9. Yes a new fire station would need to be built.

10. Unknown due to the lack of development in this area.

11. Provide a fire station to reduce response times and the impact that calls for service to this area will have on other parts of the city.

South Central Coastal Information Center
California Historical Resources Information System
California State University, Fullerton
Department of Anthropology
800 North State College Boulevard
Fullerton, CA 92834-6846
714.278.5395 / FAX 714.278.5542
anthro.fullerton.edu/sccic.html - sccic@fullerton.edu

Ventura
Los Angeles
Orange

March 13, 2006 SCCIC #6346.3591

Mr. Kelsey Bennett
Christopher A. Joseph & Associates
31255 Cedar Valley Drive, Suite 222
Westlake Village, CA 91362
818-735-8858

RE: Expedited Records Search for Site *Sakioka Farms Specific Plan*

Dear Mr. Bennett,

As per your request received on February 22, 2006, an expedited records search was conducted for the above referenced project. The search includes a review of all recorded archaeological sites within a 1/2-mile radius of the project site as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest (PHI), the California Historical Landmarks (CHL), the California Register of Historical Places (CR), the National Register of Historic Places (NR), and the California State Historic Resources Inventory (HRI) listings were reviewed for the above referenced project site. The following is a discussion of the findings.

Due to the sensitive nature of cultural resources, archaeological site locations are not released.

Camarillo and Oxnard USGS 7.5' Quadrangles

ARCHAEOLOGICAL RESOURCES:

One (1) archaeological site (56-000013) has been identified within a 1/2-mile radius of the project site. No archaeological sites are located within the project site. No archaeological sites are listed on the Archaeological Determination of Eligibility (DOE) list. One (1) isolate (56-100059*) has been identified within a 1/2-mile radius of the project site and is located within the project site.
(= Located within the project site)*

HISTORIC RESOURCES:

Five (5) additional cultural resources (56-150008, 56-150009, 56-150010, 56-150011, and 56-150012) have been identified within a 1/2-mile radius of the project site. No cultural resources are located within the project site.

A review of the historic map - Hueneme (1904) 15' USGS - indicated that in 1904, a loose network of roads and buildings were present within the 1/2-mile search radius.

The California Point of Historical Interest (2006) of the Office of Historic Preservation, Department of Parks and Recreation, lists no properties within a 1/2-mile radius of the project site.

The California Historical Landmarks (2006) of the Office of Historic Preservation, Department of Parks and Recreation, lists no properties within a 1/2-mile radius of the project site.

The California Register of Historical Places (2006) lists no properties within a 1/2-mile radius of the project site. These are properties determined to have a National Register of Historic Places Status of 1 or 2, or are a California Historical Landmark numbering 770 and higher.

The California Historic Resources Inventory (2006) lists eleven (11) properties that have been evaluated for historical significance within a 1/2-mile radius of the project site (see enclosed list).

PREVIOUS CULTURAL RESOURCES INVESTIGATIONS:

Thirty (30) studies (VN28*, VN236, VN343, VN466, VN575, VN581, VN584, VN657, VN722, VN733*, VN880*, VN881*, VN882*, VN1043, VN1093, VN1112*, VN1410, VN1521, VN1645*, VN1646*, VN1647*, VN1957*, VN1959, VN2026, VN2028, VN2029, VN2161, VN2216, and VN2226) have been conducted within a 1/2-mile radius of the project site. Of these, ten (10) are located within the project site. There **are** twenty-nine (29) additional investigations located on the Camarillo and Oxnard 7.5' USGS Quadrangles that **are** potentially within a 1/2-mile radius of the project site. The reports are not mapped due to insufficient locational information.
(= Located within the project site)*

RECOMMENDATIONS

The project site appears to have been part of a larger study (VN733) conducted in 1988. There are several recorded cultural resources within close proximity to the project site, as well as one resource within the project site boundaries.

Due to the cultural resource sensitivity of the general area, a professional archaeologist should be retained to conduct a phase I archaeological survey. Changes in the environment between 1988 and 2006 may have exposed unidentified cultural resources.

If any building(s) 45 years and older will be affected by the proposed project, it is recommended that the building(s) be assessed and evaluated for potential historical significance.

The professional archaeologist you retain may request the records search map, archaeological site records, and bibliography from the Information Center by referencing the SCCIC number listed above for a fee (per the fee schedule).

If you have any questions regarding the results presented herein, please contact the office at 714.278.5395 Monday through Thursday 8:00 am to 3:30 pm.

Should you require any additional information for the above referenced project, reference the SCCIC number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Sincerely,
SCCIC
Sarah Galaz

Sarah Galaz
Staff Researcher

Enclosures:

(X) HRI – 2 pages
(X) Copy of Invoice #6346.3591 (original mailed to Anna Funston, Christopher A. Joseph & Associates, 11849 W. Olympic Blvd., Suite 101, Los Angeles, CA. 90064)

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS............	NAMES............................	CITY.NAME........	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
							HIST.RES.	NPS-99000109-0143	02/05/99	1D	AC
							HIST.SURV.	3030-0003-0065		5D2	
016665	56-151271	461 S C ST		OXNARD	P	1939	NAT.REG.	56-0022	02/05/99	1D	AC
							HIST.RES.	NPS-99000109-0135	02/05/99	1D	AC
							HIST.SURV.	3030-0003-0057		5D2	
017024	56-151630	244 S GARFIELD AVE		OXNARD	P	1915	HIST.SURV.	3030-0023-0000		7	
017038	56-151644	260 S HARDING AVE		OXNARD	P	1963	HIST.SURV.	3030-0037-0000		7	
017037	56-151643	261 S HARDING AVE		OXNARD	P	1963	HIST.SURV.	3030-0036-0000		7	
017042	56-151648	246 S JUANITA ST		OXNARD	P	1950	HIST.SURV.	3030-0041-0000		7	
017041	56-151647	247 S JUANITA ST		OXNARD	P	1949	HIST.SURV.	3030-0040-0000		7	
017044	56-151650	244 S LUPITA ST		OXNARD	P	1910	HIST.SURV.	3030-0043-0000		7	
017043	56-151649	247 S LUPITA ST		OXNARD	P	1955	HIST.SURV.	3030-0042-0000		7	
017045	56-151651	245 S MARQUITA ST		OXNARD	P	1947	HIST.SURV.	3030-0044-0000		7	
017030	56-151636	241 S MCKINLEY AVE		OXNARD	P	1915	HIST.SURV.	3030-0029-0000		7	
017032	56-151638	244 S MCKINLEY AVE		OXNARD	P	1930	HIST.SURV.	3030-0031-0000		7	
017031	56-151637	245 S MCKINLEY AVE		OXNARD	P	1915	HIST.SURV.	3030-0030-0000		7	
017020	56-151626	660 S OXNARD BLVD	ASAHI MARKET	OXNARD	P	1956	HIST.SURV.	3030-0019-0000		7	
017028	56-151634	240 S ROOSEVELT AVE		OXNARD	P	1910	HIST.SURV.	3030-0027-0000		7	
017026	56-151632	247 S ROOSEVELT AVE		OXNARD	P	1915	HIST.SURV.	3030-0025-0000		7	
017029	56-151635	248 S ROOSEVELT AVE		OXNARD	P	1920	HIST.SURV.	3030-0028-0000		7	
017027	56-151633	249 S ROOSEVELT AVE	BETHEL AFRICAN METHODIST EPISCOPAL	OXNARD	P	1948	HIST.SURV.	3030-0026-0000		7	
017039	56-151645	260 S WILSON AVE		OXNARD	P	1962	HIST.SURV.	3030-0038-0000		7	
017040	56-151646	261 S WILSON AVE		OXNARD	P	1962	HIST.SURV.	3030-0039-0000		7	
128211		3025 SANTA CLARA AVE		OXNARD	P	1948	HIST.RES.	DOE-56-01-0006-0000	05/03/01	6Y	
							PROJ.REVW.	FHWA010404C	05/03/01	6Y	
128210		3190 SANTA CLARA AVE		OXNARD	P	1948	HIST.RES.	DOE-56-01-0005-0000	05/03/01	6Y	
							PROJ.REVW.	FHWA010404C	05/03/01	6Y	
128206		3222 SANTA CLARA AVE		OXNARD	P	1939	HIST.RES.	DOE-56-01-0004-0000	05/03/01	6Y	
							PROJ.REVW.	FHWA010404C	05/03/01	6Y	
128205		3242 SANTA CLARA AVE		OXNARD	P	1938	HIST.RES.	DOE-56-01-0003-0000	05/03/01	6Y	
							PROJ.REVW.	FHWA010404C	05/03/01	6Y	
128204		3302 SANTA CLARA AVE		OXNARD	P	1920	HIST.RES.	DOE-56-01-0002-0000	05/03/01	6Y	
							PROJ.REVW.	FHWA010404C	05/03/01	6Y	
128203		3320 SANTA CLARA AVE		OXNARD	P	1920	HIST.RES.	DOE-56-01-0001-0000	05/03/01	6Y	
							PROJ.REVW.	FHWA010404C	05/03/01	6Y	
128212		2371 VENTURA BLVD		OXNARD		1932	HIST.RES.	DOE-56-01-0007-0000	05/03/01	6Y	
							PROJ.REVW.	FHWA010404C	05/03/01	6Y	
128215		2631 VENTURA BLVD		OXNARD	P	1938	HIST.RES.	DOE-56-01-0010-0000	05/03/01	6Y	
							PROJ.REVW.	FHWA010404C	05/03/01	6Y	
128216		2651 VENTURA BLVD		OXNARD	P	1938	HIST.RES.	DOE-56-01-0011-0000	05/03/01	6Y	
							PROJ.REVW.	FHWA010404C	05/03/01	6Y	
128213		2661 VENTURA BLVD		OXNARD	P	1945	HIST.RES.	DOE-56-01-0008-0000	05/03/01	6Y	
							PROJ.REVW.	FHWA010404C	05/03/01	6Y	
016992	56-151598	W 1ST ST	WEST FIRST STREET	OXNARD	P	1905	HIST.SURV.	3030-0010-9999		5S2	
016964	56-151570	209 W 1ST ST		OXNARD	P	1921	HIST.SURV.	3030-0010-0006		5D2	
016965	56-151571	213 W 1ST ST		OXNARD	P	1921	HIST.SURV.	3030-0010-0007		5D2	
016971	56-151577	216 W 1ST ST		OXNARD	P	1920	HIST.SURV.	3030-0010-0013		5D2	
016966	56-151572	219 W 1ST ST		OXNARD	P	1921	HIST.SURV.	3030-0010-0008		5D2	
016967	56-151573	223 W 1ST ST		OXNARD	P	1921	HIST.SURV.	3030-0010-0009		5D2	
016968	56-151574	227 W 1ST ST		OXNARD	P	1935	HIST.SURV.	3030-0010-0010		5D2	
016969	56-151575	235 W 1ST ST		OXNARD	P	1922	HIST.SURV.	3030-0010-0011		5D2	
016970	56-151576	245 W 1ST ST		OXNARD	P	1905	HIST.SURV.	3030-0010-0012		5D2	
016972	56-151578	252 W 1ST ST		OXNARD	P	1960	HIST.SURV.	3030-0010-0014		7	
016973	56-151579	303 W 1ST ST		OXNARD	P	1923	HIST.SURV.	3030-0010-0015		5D2	
016974	56-151580	307 W 1ST ST		OXNARD	P	1923	HIST.SURV.	3030-0010-0016		5D2	
016975	56-151581	311 W 1ST ST		OXNARD	P	1923	HIST.SURV.	3030-0010-0017		5D2	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS	NAMES	CITY.NAME	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
							HIST.RES.	NPS-99000109-0083	02/05/99	1D	AC
							HIST.SURV.	3030-0003-0005		5D2	
016627	56-151233	105 N G ST		OXNARD	P	1930	NAT.REG.	56-0022	02/05/99	1D	AC
							HIST.RES.	NPS-99000109-0098	02/05/99	1D	AC
							HIST.SURV.	3030-0003-0019		5D2	
016612	56-151218	110 N G ST		OXNARD	P	1926	HIST.RES.	NPS-99000109-0082	02/05/99	1D	AC
							NAT.REG.	56-0022	02/05/99	1D	AC
							HIST.SURV.	3030-0003-0004		5D2	
016628	56-151234	111 N G ST		OXNARD	P	1926	NAT.REG.	56-0022	02/05/99	1D	AC
							HIST.RES.	NPS-99000109-0099	02/05/99	1D	AC
							HIST.SURV.	3030-0003-0020		5D2	
016629	56-151235	121 N G ST		OXNARD	P	1926	NAT.REG.	56-0022	02/05/99	1D	AC
							HIST.RES.	NPS-99000109-0100	02/05/99	1D	AC
							HIST.SURV.	3030-0003-0021		5D2	
016611	56-151217	122 N G ST		OXNARD	P	1926	NAT.REG.	56-0022	02/05/99	1D	AC
							HIST.RES.	NPS-99000109-0081	02/05/99	1D	AC
							HIST.SURV.	3030-0003-0003		5D2	
016610	56-151216	126 N G ST		OXNARD	P	1940	NAT.REG.	56-0022	02/05/99	1D	AC
							HIST.RES.	NPS-99000109-0080	02/05/99	1D	AC
							HIST.SURV.	3030-0003-0002		5D2	
016630	56-151236	131 N G ST		OXNARD	P	1930	NAT.REG.	56-0022	02/05/99	1D	AC
							HIST.RES.	NPS-99000109-0101	02/05/99	1D	AC
							HIST.SURV.	3030-0003-0022		5D2	
016609	56-151215	134 N G ST		OXNARD	P	1940	NAT.REG.	56-0022	02/05/99	1D	AC
							HIST.RES.	NPS-99000109-0079	02/05/99	1D	AC
							HIST.SURV.	3030-0003-0001		5D2	
065357	56-152246	104 N HAYES AVE	ZOE CHRISTIAN CENTER	OXNARD	U		PROJ.REVW.	HUD870821A	09/21/87	6Y	
077186	56-152302	464 N HAYES AVE		OXNARD	U	1940	PROJ.REVW.	HUD920520D	06/18/92	6Y	
128214		3259 NYLAND AVE		OXNARD	P	1940	HIST.RES.	DOE-56-01-0009-0000	05/03/01	6Y	
							PROJ.REVW.	FHWA010404C	05/03/01	6Y	
017016	56-151622	117 S B ST		OXNARD	P	1903	HIST.SURV.	3030-0015-0000		7	
017017	56-151623	127 S B ST		OXNARD	P	1903	HIST.SURV.	3030-0016-0000		7N	
017036	56-151642	260 S BONITA AVE		OXNARD	P	1963	HIST.SURV.	3030-0035-0000		7	
017035	56-151641	261 S BONITA AVE		OXNARD	P	1963	HIST.SURV.	3030-0034-0000		7	
016847	56-151453	100 S C ST		OXNARD	P	1920	HIST.SURV.	3030-0007-0016		5D2	
016841	56-151447	101 S C ST		OXNARD	P	1905	HIST.SURV.	3030-0007-0010		5D2	
016848	56-151454	110 S C ST		OXNARD	P	1920	HIST.SURV.	3030-0007-0017		5D2	
016842	56-151448	111 S C ST		OXNARD	P	1895	HIST.SURV.	3030-0007-0011		7N	
016849	56-151455	120 S C ST		OXNARD	P	1914	HIST.SURV.	3030-0007-0018		5D2	
016843	56-151449	125 S C ST		OXNARD	P	1940	HIST.SURV.	3030-0007-0012		5D2	
016833	56-151439	127 S C ST		OXNARD	P	1906	HIST.SURV.	3030-0007-0002		5D2	
016850	56-151456	128 S C ST		OXNARD	P	1905	HIST.SURV.	3030-0007-0019		5D2	
016851	56-151457	132 S C ST		OXNARD	P	1940	HIST.SURV.	3030-0007-0020		5D2	
016844	56-151450	135 S C ST		OXNARD	P	1899	HIST.SURV.	3030-0007-0013		5D2	
016845	56-151451	143 S C ST		OXNARD	P	1902	HIST.SURV.	3030-0007-0014		5D2	
016852	56-151458	144 S C ST		OXNARD	P	1960	HIST.SURV.	3030-0007-0021		7	
016846	56-151452	151 S C ST		OXNARD	P	1905	HIST.SURV.	3030-0007-0015		5D2	
016834	56-151440	161 S C ST		OXNARD	P	1911	HIST.SURV.	3030-0007-0003		5D2	
016835	56-151441	201 S C ST		OXNARD	P	C	HIST.SURV.	3030-0007-0004		7N	
016836	56-151442	211 S C ST		OXNARD	P	1903	HIST.SURV.	3030-0007-0005		5D2	
016837	56-151443	327 S C ST		OXNARD	P	1908	HIST.SURV.	3030-0007-0006		5D2	
016838	56-151444	343 S C ST		OXNARD	P	1904	HIST.SURV.	3030-0007-0007		5D2	
016607	56-151213	424 S C ST	OXNARD PUBLIC LIBRARY, OXNARD CHAM	OXNARD	M	1906	HIST.RES.	NPS-71000210-0000	07/27/71	1S	C
016797	56-151403	101 S D ST		OXNARD	P	1903	HIST.SURV.	3030-0006-0003		5D2	
016802	56-151408	108 S D ST		OXNARD	P	1924	HIST.SURV.	3030-0006-0008		5D2	
015798	56-151404	119 S D ST		OXNARD	P	1941	HIST.SURV.	3030-0006-0004		5D2	

CITY OF Oxnard "The City That Does" CALIFORNIA

Post-it® Fax Note 7671	Date 4/13/06 # of pages ▶ 6
To Kelsey Bennett	From Robin Middleton
Co./Dept. Chris Joseph	Co. Oxnard Library
Phone #	Phone # (805) 385-7524
Fax # (818) 735-8858	Fax #

MEMO

April 13, 2006

TO: Kelsey Bennett, Environmental Planner

FROM: Robin Middleton, Library Services Supervisor Robin Middleton

VIA: Barbara J. Murray, Library Director

SUBJECT: SAKIOKA FARMS DRAFT SPECIFIC PLAN PROPOSAL

The following proposal is in response to your request.

If you need more information, please let us know.

2006.14

SAKIOKA FARMS DRAFT SPECIFIC PLAN PROPOSAL

Service Questions:

1. *Which library branch would serve the project site? Would any other libraries serve the project site? Please provide all applicable addresses.*

   The nearest library to the Sakioka Farms project is the Colonia Library located in the Family Investment Center at 1500 Camino del Sol, Room #26, Oxnard, CA 93030.

2. *What is/are the sizes(s) in square feet of each library included in your responses to Question One?*

   The Colonia Library occupies a 580 square-foot room in the Family Investment Center on Camino del Sol. The building in which it is housed was built in 1978 and accommodates offices administered by the Oxnard Housing Authority.

3. *What is/are the size(s) in volumes of each library collection included in your response to Question One?*

   The existing Colonia Library has a collection of 12,280 items. This collection is housed on 438 linear feet of shelving. Because of severe space limitations and limited floor space, no additional shelving can be added. The current 438 linear feet of shelving is filled to capacity, and there is no room to accommodate new items added to the collection. If an item is added to the collection, then an item must be removed from the shelf to make room for the new item. All areas of the library's collection are extremely limited and need to be increased to accommodate the current demand.

4. *What is/are the estimated population(s) served by each library included in your response to Question One?*

   The Colonia Library serves a population of 23,649. In the area east of Rose Avenue in a one-mile radius of the proposed Sakioka Farms project, there are currently 2,750 single-family homes and apartments with approximately 11,000 residents.

5. *What is/are the staffing levels(s) of each library included in you response to Question One?*

   Current staffing at the Colonia Library is inadequate and barely meets the California State Library definition for a branch library. Increasing staff at this library is not an option due to space limitations of the existing facility. Staffing level at the Colonia Library is 1.75 FTE.

6. *Does the Oxnard Public Library have branch building size standards (in square feet) for population size served?*

   Current standards for public libraries are not available from the American Library Association (ALA) or the California State Library. The Oxnard Public Library adheres to the "minimum" acceptable building standards established by ALA in 1966. The ALA "minimum" acceptable standard for public library space was 0.6 square feet of space for every person residing in a library's service area. About 20 years later, the standard was changed to 0.8 square feet of space, with another increase in the 1990's. Now it is becoming widely accepted that an adequate amount of library building space should be 1.0 square feet for every service area resident.

The following chart shows the need for additional libraries in the City to adequately serve the needs of the community:

Year	Population	1.0 square feet standard	Number of library branches	Square Footage	Additional square feet needed	Additional branches
2005	186,100	186,100	3	76,580	105,420	5
2007*	192,000est.	192,000	3	95,580	96,420	4.82
2010	197,532est.	197,532			101,952	5.1
2015	208,005est.	208,005			106,053	5.3
2020	218,194est.	218,194			122,614	6.13

*23,000 square-foot South Oxnard Branch Library opens in 2006
(Sources: 2003 population estimates from Department of Finance; 2010, 2015, and 2020 population estimates from SCAG, Socioeconomic Trend Projections for the 2004 RTP)

7. *Do plans currently exist for either immediate or future expansion of library facilities in the project area?*

Yes, library staff is recommending building a new 30,000 to 35,000 square-foot facility to better serve the library informational and literacy needs of the surrounding schools, residents of low-income communities, and residents from new communities built near the project area. The ideal location for the new library is south of Gonzales Road, west of Rice Avenue, east of Rose Avenue, and north of Camino Del Sol. Providing a larger library is in line with the City's goal of public safety, where youths will have a safe environment in which to spend their time.

8. *In order to predict the proposed project's future library demand, we propose to use the following library demand rates (Source: State of California). If these rates are not in accordance with local thresholds or not acceptable, please provide us with you recommended rates.*

- Commercial/Industrial/Office/Institutional/Recreational Uses: 0 square feet/capita & 0 volumes/capita

The adequate library demand rate recommended for library building space should be 1.0 square feet for every service area resident within a one-and-a-half mile radius.

9. *What is the current library service demand within the project area?*

The results of a community library needs assessment completed in October 2003 yielded important information about the library service needs of residents living, working, and attending school in the northwest and Colonia areas of the city. Results of the community surveys were used to determine the hours of operation needed for a library, types of library services needed, and the size needed for the library collections.

The Colonia Library is open four half-days per week from 12:00 p.m. to 6:00 p.m., Monday through Thursday, for a total of twenty-four hours per week. The surveys completed as part of the community needs assessment indicated a strong preference for extending library hours to include mornings, evenings and weekends.

The results of the needs assessment will be used to define programs, services, and classes available at the planned library. The surveys indicated that the top five services needed at the library are: (1) computer usage classes, (2) Internet accessible computers, (3) tutoring and homework assistance, (4) children's storytime services, and (5) English-as-a-Second-Language classes.

Surveys identified the materials and resources needed in the new library collection included: (1) children's books and other resources, (2) adult fiction and non-fiction books in Spanish and English, and (3) audio visual materials such as DVD's and videos. The branch library collection will need to be enlarged to adequately meet the community's demand for library resources.

10. *Do standard criteria exist for evaluating acceptable library service levels and for assessing the significance of impacts to service levels imposed by implementation of the proposed project? Which agency or office developed those criteria?*

No standard criteria exist; however, the California State Library publishes the "California Library Statistics" annually. This publication compares library service levels and per capita expenditure for city and county libraries in California.

11. *What is considered an adequate level of service?*

Comparison with Other Cities with Population between 150,000-200,000 (*California Library Statistics 2005* figures)

Compared to other cities in Southern California with 150,000-200,000 residents, the City of Oxnard lags behind two other cities in the number of its branch libraries. The Oxnard Public Library consists of one main library, one small size branch library in south Oxnard and a tiny one-room branch library in Colonia.

City	Population	Square Miles	Number of Branches
Oxnard	186,100	24	3
Glendale	205,300	30.59	8
Huntington Beach	198,600	26	5
Pomona	158,400	22.86	1

Comparison with Other Libraries with Populations under 150,000 and with a 21-24 Square Mile Service Area

The City of Oxnard also lags behind two other cities in the number of its branches in the category.

City	Population	Square Miles	Number of Branches
Fullerton	134,100	23	3
Orange	136,600	23.54	3
Pasadena	144,000	23	10
Torrance	146,200	21	6

12. *Are the libraries (or the library) included in your response to Question One adequately meeting the project area's current demand for library facilities?*

No, the existing library facility cannot meet the current demand for library services in the project area. The existing Colonia Library encompasses 580 square feet and is experiencing severe space limitations. The Colonia Multi-Service Center/Family Investment Center was built in 1978, and the Colonia Library occupies one room in the center. The existing library was not intended to be a permanent, full-service library. When the library moved to its current location, it was intended to temporarily meet the pressing need for public library services in the Colonia area until a larger permanent facility could be constructed and opened to the public.

The Colonia Library's current space limitations restrict the quality and types of services that can be offered to the community. Due to space limitations, the library can only accommodate six computers for public usage. Because of high demand for these computers, library customers are limited to using a computer for only thirty minutes per day. Current seating in the library is limited to eleven chairs, two small tables, and a children's sofa. Large numbers of parents and children cannot be accommodated for special library events or programs at the existing facility. When a teacher brings a class for a library visit, only half of the students can use the library at a time. The library does not have restrooms or a staff work area within the 580 square-foot library. We do not have room on the library shelves to enlarge the collection. The current library collection consists of 12,280 items.

The result of a community library needs assessment completed in October 2003 yielded important survey data related to the library service needs in northwest Oxnard. Ninety-one percent (91%) of adults and ninety-four percent (94%) of the students surveyed indicated that improved library services and a larger facility is needed to meet the community information and library needs. The community needs assessment surveys indicated that homework assistance, English-as-a- Second-Language classes, and computer classes are needed.

13. *Would the libraries (or library) included in your response to Question One be able to meet the proposed project's demand for library facilities?*

No, a larger branch library encompassing 30,000 to 35,000 square feet located near the proposed project site is needed to provide adequate library services to the new community of 4,050 families living east of Rose Ave. This new branch library would maintain a collection of 80,000 items, a homework center, computer lab, quiet study rooms, and a large meeting room.

14. *Does the Oxnard Public Library implement fee-based assessments (i.e., mitigation fees) to new development projects? If so, how are the fees calculated for commercial/retail uses? Please provide any recommendations that might reduce any potential library impacts that would be associated with the proposed project.*

No, the City of Oxnard has not implemented fee-based assessments on new development projects for library services. Library staff recommends that a new 30,000 to 35,000 square-foot branch library be constructed near the proposed project site to provide library services to the currently underserved population. A study by library consultant Raymond M. Holt, *Program for Action: Developing Services and Facilities for the Oxnard Public Library* (1979), provided recommendations for developing library services based on projected needs of the community though the year 2000. In this study, Mr. Holt recommends that any person in a community be no more than a mile and a half from the nearest library. The Main Library is outside of the recommend one-and-a-half-mile service area from the Sakioka Farm project. The high traffic volume on Oxnard Blvd. and Rose Avenue creates a physical barrier and safety concern for children attempting to walk to the Main Library from residences located in northeast Oxnard.

The Gas Company

A Sempra Energy utility™

Southern California
Gas Company
9400 Oakdale Avenue
Chatsworth, CA 91311-6511

February 27, 2006

Christopher A. Joseph & Associates
Environmental Planning & Research
31255 Cedar Valley Drive, Suite 222
Westlake, California 91362

Re: Sakioka Farms Specific Plan Environmental Impact Report

Attn: Kelsey Bennett

Northern Region Technical Services Department of Southern California Gas Company operates various medium and possibly high pressure gas mains within the limits of your proposed project. You should also contact our Transmission Department to determine if there are any high pressure transmission lines within the scope of your project. Transmission Department is also located at this Chatsworth address and may be reached on 818-701-4546.

Enclosed are copies of our Atlas Sheets with the approximate locations of our natural gas mains for you to post to your proposed project plans. There also may be service laterals coming from these mains that are not identified on this plan. The dimensions and locations of these mains are believed to be reasonably correct but are not guaranteed. Should you need additional atlas sheets, please contact me.

The depths of our facilities vary and can only be confirmed by potholing or some other method of taking elevations.

It is extremely important that you furnish us with **"signed" final plans**, before construction, including profiles and subsequent plan revisions as soon as they are available. A minimum of six (6) months is needed to analyze the plans, design a new main network and design alterations for any conflicting facilities. Depending on the magnitude of the work involved, additional time may be required to clear the conflict.

I have forwarded your fax to Dennis Phipps, Field Planning Associate Oxnard (818-700-3645), Tim Knights, New Business Project Manager (805-331-3507) and to Jae Yi, Environmental Specialist, 818-701-3231.

Thank you.

Jane X Harrison

Jane Harrison - Planning Associate
Northern Region Technical Services

Enclosures

Natural History
Museum of Los Angeles County
900 Exposition Boulevard • Los Angeles, CA 90007

Vertebrate Paleontology Section
Telephone: (213) 763-3325
FAX: (213) 746-7431
e-mail: smcleod@nhm.org

6 March 2006

Christopher A. Joseph & Associates
31255 Cedar Valley Drive, Suite 222
Westlake Village, CA 91362

Attn: Kelsey Bennett, Environmental Planner

re: Paleontological resources for the proposed Sakioka Farms 430 acre property along U.S. Highway 101 east of Rice Avenue, in the City of Oxnard, Ventura County, project area

Dear Kelsey:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed Sakioka Farms 430 acre property along U.S. Highway 101 east of Rice Avenue, in the City of Oxnard, Ventura County, project area as outlined on the section of the Oxnard and Camarillo USGS quadrangle maps that you sent to me on 24 February 2006. We do not have any vertebrate fossil localities that lie within the project boundaries, nor do we have any localities nearby from the same or similar sedimentary units as are exposed in the proposed project area.

Surficial sediments at the proposed project site and in the surrounding area consist of younger terrestrial Quaternary Alluvium sediments of clays, sands and gravels, with older terrestrial Quaternary sediments occurring at various depths, as part of the floodplain or fan deposits in the general Santa Clara Valley area. We have no vertebrate fossil localities anywhere nearby from the younger Quaternary Alluvium, which is unlikely to contain significant vertebrate fossils, at least in the uppermost layers, but there are exposures of older Quaternary Alluvium nearby east and northeast of the proposed project area. Our closest fossil locality in somewhat older sediments is LACM 5883, situated northeast of the proposed project area on the northwestern side of the Camarillo Hills adjacent to Beardsley Wash, that produced a specimen of indeterminate odd-toed ungulate, Perissodactyla, from the Plio-Pleistocene Saugus Formation.

Grading or shallow excavations in the uppermost few feet of the younger Quaternary alluvial sediments in the proposed project site area are unlikely to uncover significant fossil vertebrate remains. Deeper excavations at the proposed project site area, however, may well encounter significant vertebrate fossils in older Quaternary sediments or even the Plio-Pleistocene Saugus

Formation. Therefore, any substantial excavations below the uppermost layers, probably at least six feet below the surface, should be closely monitored to quickly and professionally collect any specimens without impeding development. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

Samuel A. McLeod

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice

Public Works • Parks and Facilities Division
1060 Pacific Avenue, Bldg. 3 • Oxnard, CA 93030
(805) 385-7950 • (805) 385-8099 • Fax (805) 385-7962

April 4, 2006

Christopher A. Joseph & Associates
Environmental Planning and Research
31255 Cedar Valley Drive, Suite 222
Westlake Village. Ca 91362

Attn: Kelsey Bennett

RE: Sakioka Specific Plan and Request for Parks and Recreation Information

Ms. Bennett:

Thank you for your letter dated February 24, 2006 requesting parks and recreation information as it relates to the above referenced project. As mentioned on the phone, the city of Oxnard only requires Quimby fees or park dedication for residential projects. I will respond to your questions contained in your February 24, 2006 correspondence in the same order in which they appeared.

(1) Response: The immediate park facilities that would serve this project are: Thompson Park (Neighborhood), Del Sol Park (Community), Colonia Park (Community), Rio Lindo Park (Neighborhood), West Village Park, (Neighborhood) and proposed East Village Park (Neighborhood).

(2) Response: Generally yes, however, upgrades to these facilities are an ongoing need.

(3) Response: Current Park acreage is 453 acres.

(4) Response: 453 Ac ÷ ~185,000 population = 2.44 park acres per 1000 residents.

(5) Response: The City of Oxnard Quimby requires 3 ac/1000 residents.

(6) Response: Yes, a new 5 acre neighborhood park is proposed (East Village Park) at the corner of Jacinto Drive and Kohala Street.

(7) Response: The City of Oxnard has no requirement for park development in Industrial, Commercial, or Business Park developments.

(8) Response: Does not apply to this project.

(9) Response: The Parks and Facilities Division, and Recreation Division and the Planning Department would determine acceptable Parks and Recreation Service Levels.

(10) Response: This question does not relate to this project.

(11) Response: Yes, there are no requirements for parks in Industrial parks.

(12) Response: No Quimby fees would be assessed for industrial/commercial/retail projects.

(13) Response: There are no fees calculated for commercial/retail uses.

You may find it helpful to also know that the City of Oxnard has hired the Matrix Design Group, Inc to revise the City's General Plan, which includes the current Parks and Recreation Element. The contact person from the City Planning Department is Chris Williamson and he can be reached at (805) 385-8156.

Sincerely,

David Gorcey

David Gorcey
Park Development Supervisor/Landscape Architect #1790
805-385-7951
david.gorcey@ci.oxnard.ca.us

JOHN CROMBACH
Chief of Police

Police Department
251 South C Street • Oxnard, CA 93030-5789
(805) 385-7600 • Fax (805) 483-8408 • http://oxnardpd.org

March 29, 2006

Kelsey Bennett
Christopher A. Joseph & Associates
31255 Cedar Valley Dr, Suite 222
Westlake Village CA 91362

Sent via postal mail and fax (818) 735-8858

Re: Sakioka Farms Specific Plan EIR

Dear Ms. Bennett:

Below please find responses to questions posed in your February 24, 2006 letter to me. The answers are numbered to match your questions in the original correspondence.

1. While the Oxnard Police Department operates several police storefront and drop-in centers, the overwhelming majority of our operations are based in the Public Safety Building located at 251 South "C" Street. This location will serve the project site.

2. The authorized staffing of the Oxnard Police Department is 242 sworn police officers and 152 civilian personnel. The sworn contingent includes the following ranks:

   Chief of Police: 1, Assistant Chief of Police: 3, Commander: 8, Sergeant: 26, Senior Police Officer: 33, and Police Officer: 171

3. The current ratio is 1.24 officers per 1,000 population.

4. Our target service ratio is 1.3 officers to 1,000 population. A study of Western U.S. law enforcement agencies of similar size to Oxnard indicates the target ratio of officer per citizen ratio is 1.3 per 1,000 population.

   The California Department of Finance (DOF) has yet to release city population estimates for 2006. Based upon the 2005 DOF estimate of 188,849 and the DOF estimated annual increase of 1.2 percent between 2004 and 2005, the population of Oxnard for 2006 is calculated at 191,115.

5. The proposed project is in Police District 1, Beat 12. Crime statistics for this district and beat are not yet available but below please find citywide crime statistics for 2005 reported to the Federal Bureau of Investigation:

The following statistics are the Oxnard Police Department Part I Crimes as reported to the FBI for calendar year 2005.

Crime Type	2003	2004	2005	
Criminal Homicide	22	18	18	Unchanged
Forcible Rape	37	24	47	Up 96%
Robbery	352	369	386	Up 4.6%
Assault	397	360	377	Up 4.7%
Burglary	975	904	941	Up 4.1%
Larceny-Theft	3,156	3,078	2,681	Down 12.9%
Motor Vehicle Theft	588	1,038	762	Down 26.6%
Totals	**5,527**	**5,791**	**5,212**	**Down 10.0%**

6. Response times as requested are not available. Citywide response times for 2005 are as follows:
   - Priority 1+ calls (response with red lights and siren) = 4 minutes 44 seconds
   - Priority 1 calls (immediate response without red lights and siren) = 9 minutes 18 seconds
   - Priority 2 calls (non-emergency response) = 18 minutes 9 seconds.

   Although there is no official goal for emergency calls, we strive to keep response to such under five minutes.

7. Minimal. The project area is currently a farm field.

8. This project will likely increase the overall population of the city, but to what extent is not addressed in the information provided.

   We use the metric of 0.5 police calls per year per person. In 2004, Oxnard Police handled an average of 891 calls for service per year per patrol officer. The optimum number of calls for service is no more than 550 calls for service per year per officer. Clearly, this project will make an already bad situation worse. As a result of additional calls for service, wait times for non-emergency calls will be even longer.

9. Answered in 8.

10. Addressed in 8.

Sincerely,

John Crombach
Chief of Police

T. Chronister 4042, CMDR.

Tom Chronister, Commander
Patrol Support Division
TomChronister@OxnardPD.org

Police Department

Mike Matlock
Assistant Chief

R. Jason Benites
Assistant Chief

Scott Whitney
Assistant Chief

John Crombach
Chief of Police

February 21, 2008

Seth Wulkan, Research Assistant
Christopher A. Joseph & Associates
30851 Agoura Road, Suite 210
Agoura Hills, CA 91301

Delivered via email to seth.wulkan@cajaeir.com

Re: Sakioka Farms Specific Plan EIR – 2008 Version

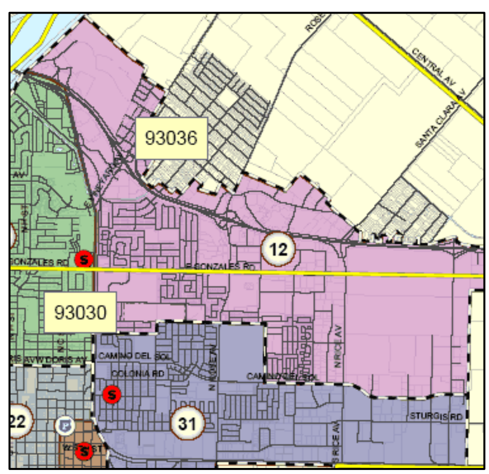
Dear Mr. Wulkan:

Below please find responses to questions posed originally in a February 24, 2006 correspondence. The responses have been updated for 2008. Answers are numbered to match questions posed in the original correspondence.

1. While the Oxnard Police Department operates several police storefront, drop-in centers and an annex facility on Sturgis Road (due south of the project area), the overwhelming majority of our operations are based in the Public Safety Building located at 251 South "C" Street. This location will serve the project site.

2. The authorized staffing of the Oxnard Police Department is 238 sworn police officers and 152 civilian personnel. The sworn contingent includes the following ranks:

   Chief of Police: 1, Assistant Chief of Police: 3, Commander: 8, Sergeant: 26, Senior Police Officer: 34, and Police Officer: 166.



3. The current ratio is 1.23 officers per 1,000 population.

4. Our target service ratio is 1.3 officers to 1,000 population. A study of Western U.S. law enforcement agencies of similar size to Oxnard indicates the target ratio of officer per citizen ratio is 1.3 per 1,000 population.

   The California Department of Finance estimates the 2007 Oxnard population at 192,997.

5. The proposed project is in Police District 1, Beat 12, which encompasses the northeastern section of Oxnard as illustrated on the above image (depicted in the color lavender).

The following statistics are the citywide Part I crimes as reported to the FBI for 2003-2007.

Crime Type	2003	2004	2005	2006	2007
Criminal Homicide	22	18	18	13	9
Forcible Rape	37	24	47	34	33
Robbery	352	369	386	418	453
Burglary	975	904	941	946	867
Larceny - Theft	3,156	3,078	2,681	2,816	2,870
Motor Vehicle Theft	588	1,038	762	614	540

6. Beat 12 response times for 2007 were as follows:
   - Priority 1+ calls (response with red lights and siren) = 5 minutes 2 seconds
   - Priority 1 calls (immediate response without red lights and siren) = 11 minutes 7 seconds
   - Priority 2 calls (non-emergency response) = 21 minutes 22 seconds

   Although there is no official goal for emergency calls, we strive to keep response to such calls in five minutes or less.

7. Negligible. The project area is currently a farm field.

8. This project will likely increase the overall population of the city, but to what extent is not addressed in the information provided.

   We use the metric of 0.5 police calls per year per person. In 2007, Oxnard Police handled an average of 1,176 calls for service per year per patrol officer. The optimum number of calls for service is no more than 550 calls for service per year per officer. Clearly, this project will make an already bad situation worse. As a result of additional calls for service, wait times for non-emergency calls will be even longer.

9. Answered in 8.

10. Addressed in 8.

11. Though the Development Advisory Process, the Police Department makes specific project recommendations in an effort to reduce the likelihood of criminal activity and disorder in or around the project area. Some of the recommendations may include lighting and architectural design modifications, closed-circuit surveillance systems, intrusion detection alarms, enrollment of businesses into existing Oxnard Police crime prevention programs, etc. The cooperation of the developer is appreciated as we work together to make the project as resistive to criminal activity as possible.

Sincerely,

John Crombach
Chief of Police

Tom Chronister

Tom Chronister, Commander
Patrol Division
TomChronister@OxnardPD.org

RECEIVED
FEB 23 2006
PLANNING DIVISION
CITY OF OXNARD

SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

Main Office
818 West Seventh Street
12th Floor
Los Angeles, California
90017-3435

t (213) 236-1800
f (213) 236-1825

www.scag.ca.gov

22 February 2006

Mr. Christopher Williamson
Senior Planner
City of Oxnard
305 West Third Street
Oxnard, CA 93030

RE: **SCAG Comments on the Re-Issuance of a Notice of Preparation of a Draft Environmental Impact Report for the Sakioka Farms Specific Plan project**
SCAG No. I 20060055

Dear Mr. Williamson:

Thank you for submitting the Re-Issuance of a Notice of Preparation of a Draft Environmental Impact Report for the above-mentioned project to the Southern California Association of Governments (SCAG) for review and comment. SCAG's responsibility as the region's clearinghouse per Executive Order 12372 includes the implementation of California Environmental Quality Act (CEQA) §15125 [d]. This legislation requires the review of local plans, projects and programs for consistency with regional plans.

We have determined that the proposed Project is regionally significant per California Environmental Quality Act (CEQA) Guidelines (Section 15206). The proposed project contains more than 650,000sf of industrial space. SCAG bases review of such projects on its adopted regional plans:

Destination 2030: 2004 Regional Transportation Plan (RTP)
Regional Comprehensive Plan and Guide (RCPG) –1996 Version
Compass Growth Vision

CEQA requires that EIRs discuss any inconsistencies between the proposed project and the applicable general plans and regional plans (Section 15125 [d]). Please state separately how the proposed plan will or will not support each regional plan. Please cite specific policies in the regional plans that the proposed project supports. If there are inconsistencies, an explanation and rationalization for such inconsistencies should be provided. Visit www.scag.ca.gov for downloadable versions of these documents.

Please provide a minimum of 45 days for SCAG to review the EIR when this document is available. If you have any questions regarding the attached comments, please contact me at (213) 236-1851. Thank you.

Sincerely,

Brian Wallace
Associate Regional Planner
Intergovernmental Review

DOCS # 119197v1

Rio
School District
Embracing hearts, inspiring minds

January 6, 2009

Christopher A. Joseph & Associates
Attn: Seth Wulkan, Assistant Environmental Planner
30851 Agoura Rd., Suite 210
Agoura Hills, California 91301

SUBJECT: Sakioka Farms Amended Specific Plan EIR

Dear Mr. Wulkan,

The proposed project falls entirely within the Rio School District, serving pre-school and grades kindergarten through eight, and the Oxnard Union High School District, serving grades nine through twelve and adult. It is our professional opinion that the proposed project will have potentially significant adverse effects on the Rio School District.

Responses to questions posed in your email are provided below.

1. **Schools Serving Proposed Project**
The nearest elementary school is Rio Rosales School, located at 1001 Kohala Street, Oxnard. The nearest middle school serving grades 6-8 is Rio del Valle Middle School, located at 3100 Rose Avenue, Oxnard.

   Rio Rosales School is about 1.35 miles from the center of the proposed project; Rio del Valley Middle School is about 2.35 miles from the center of the proposed project.

2. **Current Enrollment and Capacity of Schools Serving Proposed Project**
Enrollment and capacity information is presented below:

School	Spaces	2008-09 Pupils	% Used
Rio Rosales (K-5)	557	512	92%
Rio del Valle (6-8)	877	726	83%

3. **Criteria to Determine Crowding and Overcrowding**
Overcrowding occurs when a school's enrollment exceeds 100% of the grade-by-grade capacity. Crowding occurs when a school reaches 90% of maximum capacity. The 10% factor represents the necessary space to handle new enrollment, class changes, specialized programs, and other factors of a school. Rio Rosales is already operating at more than 90% capacity and Rio del Valley is within a few students of that threshold. Therefore, both schools should be considered as crowded and potentially overcrowded at the time your proposed project is built.

4. **Expected Enrollment Growth**
It is expected that enrollment will continue to grow at Rio Rosales School as this new neighborhood matures. This should occur within the next five years, or by the start of the 2013-14 school year.

5. **Planned Expansion of Either School**
At this time there are no plans to expand either school. Rio Rosales was sized to serve the approved Northeast Community Specific Plan and future development on the Maulhardt Ranch. Sakioka Farms was presented as an all commercial project with no residences. Proposed housing in the project is a major change by the landowner and city.

6. **Student Generation Rates for Sakioka Farms Specific Plan**
Rates presently used in the Rio School District are:

Type:	K-5	6-8	K-8
SFD	0.40	0.15	0.55
SFA	0.25	0.10	0.35
MF-market rate	0.10	0.05	0.15
MF-Affordable*	0.20	0.08	0.28

*This rate based on actual units including senior housing and is subject to recalculation in the future.

7. **Fee-based Assessments for Development Projects, including Commercial and Retail Uses**
Rio School District is in the process of readopting its Level 2 fee in the amount of $4.20 per square foot for residential projects. Commercial and industrial projects pay the District's 71% share of the $0.47 per square foot non-residential fee. Specific Plans in Oxnard have entered into negotiations with the affected school districts to provide needed facilities that offset impacts attributable to their project. With the addition of 900 apartments to the Sakioka Farms Specific Plan we invite the project team to meet with school district

representatives to mutually identify the best way to serve these future residents.

8. Other Potential CEQA Impacts

(a) The proposed apartments are not connected to the rest of Oxnard's residential areas and are part of an industrial setting. Rice Avenue is a major inter-city arterial and may be upgraded to a major truck route connecting the harbor to the freeway. It is unlikely that any measures will allow future school-age residents to safely walk or bike to school. Permanent vehicle transportation, by car or bus, will be needed. These safety, transportation, and air quality impacts are physical effects on the environment and should be addressed in your document.

(b) School bus pickup and drop off locations within project.

(c) Expansion needs at existing schools.

(d) Preschool and before/after school child care.

(e) Please clarify if the four-acre park will be private (for residents only) or open to the public. Additional public recreational space should be shown so that school fields are not overused.

(f) Potential impacts on schools and students should be thoroughly discussed in this Program EIR. Government Code 65996 says that CEQA may not be used to require additional payment for needed schools, but it leaves in place all requirements for a complete analysis and discussion of impacts on safety, traffic-transportation, air quality, public services including child care, plus parks and recreation.

If you have any further questions, please contact me at (805) 485-3111 or mkrueger@rio.k12.ca.us.

Sincerely,

Mark A. Krueger

Mark Krueger
Assistant Superintendent, Business Services
Rio School District

Oxnard Union High School District

100 YEARS of EXCELLENCE

Louis J. Cunningham, Director of Facilities 309 South K Street, Oxnard, Calif. 93030
805.385.2562 805.483.1619 Facsimile lou@ouhsd.k12.ca.us

March 20, 2006

Kelsey Bennett
Environmental Planner
Christopher A. Joseph & Associates
31255 Cedar Valley Drive, Suite 222
Westlake Village, CA, 91362

Regarding: Request for School Information for a Environmental Impact Report for the Sakioka Farms Specific Plan, Oxnard, CA

Dear Kelsey:

The Oxnard Union High School District ("District") has received your request for information for an Environmental Impact Report ("EIR") for the proposed Sakioka Farms Specific Plan EIR. This Plan would allow for the construction of up to 8,500,000 sq ft. of commercial, office, light industrial, and business/ research space.

The District had an enrollment of 16,138 for all schools during the school year of 2005/2006. Pacifica High School located at 600 E. Gonzales Road would serve any students living in the plan area. But as no new homes are set to be built in the project area it is hard to say where any students generated by the project might live or what school they might attend. Pacifica High School presently has a capacity of 2,550 students with an enrollment of 3287.

Unless properly addressed, the Project will have an adverse impact on the ability of the District to house students, and will produce significant negative impacts to the District and the City of Oxnard. By continuing to place additional students on existing campuses there would be increased noise, traffic, and pollution due to an increased number of students who are transported to and from school. It is, therefore, to the mutual benefit of the District, City of Oxnard and the Developer to work in a collaborative effort to ensure the provision of adequate school facilities necessary to meet the increases in student enrollment associated with the Plan.

In April 2005, a School Facilities Needs Analysis ("SFNA") was prepared for the District. An element included in the SFNA is a calculation of district-wide student generation factors ("SGFs") for all (housing) land use types for the District.

In addition to calculating SGFs, the SFNA also evaluated student enrollment and facilities capacity in the school year 2004-05. Comparing school facilities capacity to the existing student enrollment, the District currently has a shortage of 2,629 seats (excludes relocatable classroom capacity in excess of 25% of regular classrooms). Therefore, in order to house students generated from the Project, the District would be required to expand its existing school facilities or add additional school facilities to accommodate the students who will be generated. The District is in the process of updating it's SFNA at this time and would expect it to be finished by mid May of this year.

As you know, Senate Bill ("SB") 50 reformed the way school districts collect mitigation payments from developers. Under SB 50, school districts cannot use the California Environmental Quality Act ("CEQA") process to block the approval of new development by citing an unmitigated impact on school facilities. Instead, school districts are given the ability, if they meet certain requirements, to collect alternative school fees ("Alternative Fees"). While the Alternative Fees are above what a school district can collect in statutory school fees, they are well below the actual amount needed to mitigate the impact residential development has on school facilities. The District currently levies Alternative Fees for housing in the amount of $1.23 per square foot and a statutory fee for commercial of 0.1428 per square foot. However, in an analysis prepared by David Taussig & Associates, Inc. ("DTA"), the District's demographic and financial consultant, the cost impact of a single family detached unit on the District is estimated to be $5,893 and the cost impact of a multi-family attached unit on the District is estimated to be $3,545, and the cost impact of a multi-family unit on the District is estimated to be $1,791. These figures assume funding will be received from the state of California to partially offset the construction cost.

When using the generation factors stated in your letter of February 24, 2006 it shows the need for housing of 68.83 high school students in the Oxnard Union High School District. If the District where to use the statutory rate of 0.1428 per S.F. the fee for the 8,500,000 S.F. would amount to $1,213,800.00. If we where able to charge per our housing cost for the 68.83 potential students the cost would be in the area of $1,400,000.00.

The District is looking at several sites for a new high school in the Oxnard area to handle the large number of un-housed students in the District. Accordingly, the District is open to meeting with the developer of the Project to see if an arrangement could be reached to more fully mitigate the impacts of the Plan on the District. Such a meeting would ensure that the high quality of education provided by the District would remain intact and that the District could continue to provide the programs that the community has come to expect.

The District appreciates the assistance of the City and the Developer with our efforts to provide adequate school facilities for all students within the area of the City served by the District. Should you have any questions regarding this process or about the findings of the District, please do not hesitate to contact me.

Sincerely,

Louis J. Cunningham
Director of Facilities

C: Dr. Jody Dunlap
Randy Winton

/mme

SAN DIEGO TRAFFIC GENERATORS ESTIMATED COST/SQUARE FOOT FOR RIO SCHOOL DISTRICT												
Assumption #1: One-third of employees working in the district live in the district.												
Assumption #2: Households generate an average of 1.5 employees												
	S.F./ Employee	Number of Employees per Square Foot	Total Employees per 10,000 square feet	Percent In-District Employees	Number of In-District Employees	Households per employee	In-District Households	Student Generation Rate	Students generated per 10,000 square feet	Weighted Cost per Student	Cost per 10,000 Square Foot	Cost to provide school housing per Square Foot of Commercial/Industrial Construction
Banks	354	0.00282	28.25	33.3%	9.42	0.667	6.28	0.477	3.00	$33,209	$99,488	$9.95
Community Shopping Centers	652	0.00153	15.34	33.3%	5.11	0.667	3.41	0.477	1.63	$33,209	$54,017	$5.40
Corporate Offices	372	0.00269	26.88	33.3%	8.96	0.667	5.98	0.477	2.85	$33,209	$94,674	$9.47
Industrial Business	284	0.00352	35.21	33.3%	11.74	0.667	7.83	0.477	3.73	$33,209	$124,010	$12.40
Industrial Parks	742	0.00135	13.48	33.3%	4.49	0.667	3.00	0.477	1.43	$33,209	$47,465	$4.75
Large High Rise Commercial Offices	232	0.00431	43.10	33.3%	14.37	0.667	9.58	0.477	4.57	$33,209	$151,805	$15.18
Lodging	882	0.00113	11.34	33.3%	3.78	0.667	2.52	0.477	1.20	$33,209	$39,931	$3.99
Medical Offices	234	0.00427	42.74	33.3%	14.24	0.667	9.50	0.477	4.53	$33,209	$150,508	$15.05
Neighborhood Shopping Centers	369	0.00271	27.10	33.3%	9.03	0.667	6.03	0.477	2.87	$33,209	$95,444	$9.54
Rental Self-Storage	15541	0.00006	0.64	33.3%	0.21	0.667	0.14	0.477	0.07	$33,209	$2,266	$0.23
Scientific R&D	329	0.00304	30.40	33.3%	10.13	0.667	6.76	0.477	3.22	$33,209	$107,048	$10.70
Standard Commercial Offices	209	0.00478	47.85	33.3%	15.95	0.667	10.64	0.477	5.07	$33,209	$168,511	$16.85

SAN DIEGO TRAFFIC GENERATORS STUDY ADJUSTED FOR RIO SCHOOL DISTRICT

COMMERCIAL/INDUSTRIAL FEE CALCULATION ADJUSTED FOR EFFECTS OF RESIDENTIAL FEES

Assumption #1: One-third of employees working within the district also live in the district.

Assumption #2: Households generate an average of 1.5 employees.

Type of C/I Development	Sq. Ft. of C/I Development	Employees/ Sq.Ft	Employees Living In District	Housing Units Per Employee	Sq. Ft./ Dwelling Unit	Sq. Ft. Residential Housing Created per unit per employee	Revenue from Residential Fees/Sq. Ft. of Residential Space	Revenue Collected from Res. Space Generated by C/I Dev.	Revenue Impact of C/I Development per Sq. Ft.	Revenue Collected per Sq. Ft. from C/I Space (per statute)	Total Fees Collected from Residential and C/I Sources	Amount/ Sq. Ft of C/I construction attributable to related residential construction	Shortfall between residential construction revenue related to C/I Construction and Revenue Impact of C/I construction/ Sq. Ft.
Banks	1	0.00282	0.333	0.667	2256	1.42	$1.87	$2.64	$9.95	$0.30	$2.94	$2.64	$7.31
Community Shopping Center	1	0.00153	0.333	0.667	2256	0.77	$1.87	$1.44	$5.40	$0.30	$1.73	$1.44	$3.97
Corporate Offices	1	0.00269	0.333	0.667	2256	1.35	$1.87	$2.52	$9.47	$0.30	$2.81	$2.52	$6.95
Industrial Business Parks	1	0.00352	0.333	0.667	2256	1.76	$1.87	$3.29	$12.40	$0.30	$3.59	$3.29	$9.11
Industrial Parks	1	0.00135	0.333	0.667	2256	0.68	$1.87	$1.26	$4.75	$0.30	$1.56	$1.26	$3.49
Large High Rise Commercial Offices	1	0.00431	0.333	0.667	2256	2.16	$1.87	$4.03	$15.18	$0.30	$4.33	$4.03	$11.15
Lodging	1	0.00113	0.333	0.667	2256	0.57	$1.87	$1.06	$3.99	$0.30	$1.36	$1.06	$2.93
Medical Offices	1	0.00427	0.333	0.667	2256	2.14	$1.87	$4.00	$15.05	$0.30	$4.30	$4.00	$11.05
Neighborhood Shopping Centers	1	0.00271	0.333	0.667	2256	1.36	$1.87	$2.54	$9.54	$0.30	$2.83	$2.54	$7.01
Rental Self-Storage	1	0.00006	0.333	0.667	2256	0.03	$1.87	$0.06	$0.23	$0.30	$0.36	$0.06	$0.17
Scientific R&D	1	0.00304	0.333	0.667	2256	1.52	$1.87	$2.84	$10.70	$0.30	$3.14	$2.84	$7.86
Standard Commercial Offices	1	0.00304	0.333	0.667	2256	1.52	$1.87	$2.84	$16.85	$0.30	$3.14	$2.84	$14.01

Grant Dunne
Management Analyst III

Solid Waste Division
111 South Del Norte Blvd.
Oxnard, California 93030

(805) 385-7956
(805) 385-8060
Fax (805) 487-3860
Grant.Dunne@ci.oxnard.ca.us
www.ci.oxnard.ca.us

Sakioka Farms Draft Specific Plan Proposal

Land Use	Net Acres	Sq. Ft.
Commercial	25 acres	100,000 sq. ft.
Light Industrial	252 acres	5,500,000 sq. ft.
Business/Research	91 acres	2,500,000 sq. ft.
Office	20 acres	400,000 sq. ft.
Fire Station	1.0 acre	n/a
Park	3.0 acres	n/a
Total	**392 net acres**	**Total Square Footage: 8,500,000 sq ft.**

Service Questions

1. Which private hauler provides solid waste services, including collection and disposal, to the project site?
City of Oxnard Solid Waste Division Municipal Hauler.
2. Which landfill(s) and transfer station(s) provide service to the project area?
Del Norte Regional Recycling and Transfer Station, 111 S. Del Norte Blvd, Oxnard 93030
3. What is the current average intake (daily, monthly, and/or yearly) of the landfills and transfer stations specified in question two? What is the maximum intake capacity (daily, monthly, and/or yearly) that those facilities are permitted? Del Norte Facility is permitted to intake 2,779 tons per day. Current average intake is approximately 1,300 per day.
4. What is the estimated remaining life span of the facilities specified in question two? What, if any, are the estimated closure dates of these facilities? Do plans currently exist for either immediate or near-future expansion of these facilities? Del Norte Facility opened in 1996. Del Norte Facility has an estimated depreciation life cycle of 45 years.
5. In order to assess the proposed project's future generation of solid waste, we propose to use the following solid waste generation rates (Source: City of Los Angeles Bureau of Sanitation, "Solid Waste Generation," 1981). If these rates are not in accordance with local thresholds or not acceptable, please provide us with your recommended rates.

   - Commercial Uses: 5 lbs/1,000 square feet/day
   - Industrial Uses: 62.5 lbs/1,000 square feet/day
   - Office Uses: 6 lbs/1,000 square feet/day

6. What is the current solid waste service demand within the project area?

Industrial and Commercial

7. Do standard criteria exist for evaluating acceptable solid waste service levels, and for assessing the significance of impacts to service levels imposed by implementation of the proposed project? Which agency or office developed those criteria? NON APPLICABLE – MUNICIPAL SOLID WASTE HAULER

8. What is considered an adequate level of service? NON APPLICABLE SOLID WASTE HAULER

9. Would existing landfills be able to accommodate the proposed project's demand for solid waste services?

10. What steps or programs do you recommend be implemented with implementation of the proposed project to comply with the California Integrated Waste Management Act of 1989 (AB-939)? Please provide any recommendations that might reduce any potential solid waste impacts that would be associated with the proposed project. SEE ATTACHMENT

Thank you for your assistance in responding to these questions. Your responses will help us ensure that our analysis of the proposed project's impacts on solid waste services is accurate and complete. In order to ensure a timely completion of our analysis, please provide your response (via mail, fax, or email) no later than March 24, 2006. If you should have any questions, please do hot hesitate to contact me at (818) 735-8838. You may also reach me by email at kelsey@cajaeir.com, and by fax at (818) 735-8858.

Sincerely,

Christopher A. Joseph & Associates

Kelsey Bennett

Kelsey Bennett
Environmental Planner

Enclosures: Project Location Maps

For questions concerning landfills, please contact:

Scott Tignac, Site Manager
Simi Valley Landfill
(805) 579-7478

Doug Anders, Analyst
Toland Road Landfill
(805) 658-4602

31255 Cedar Valley Drive • Suite 222 • Westlake Village • CA 91362
Phone 805 782-9708 or 818 735-8838 • Fax 818 735-8858 • E-mail info@cajaeir.com • Web www.cajaeir.com
Los Angeles • Westlake Village • Petaluma • Oakland • Mammoth Lakes

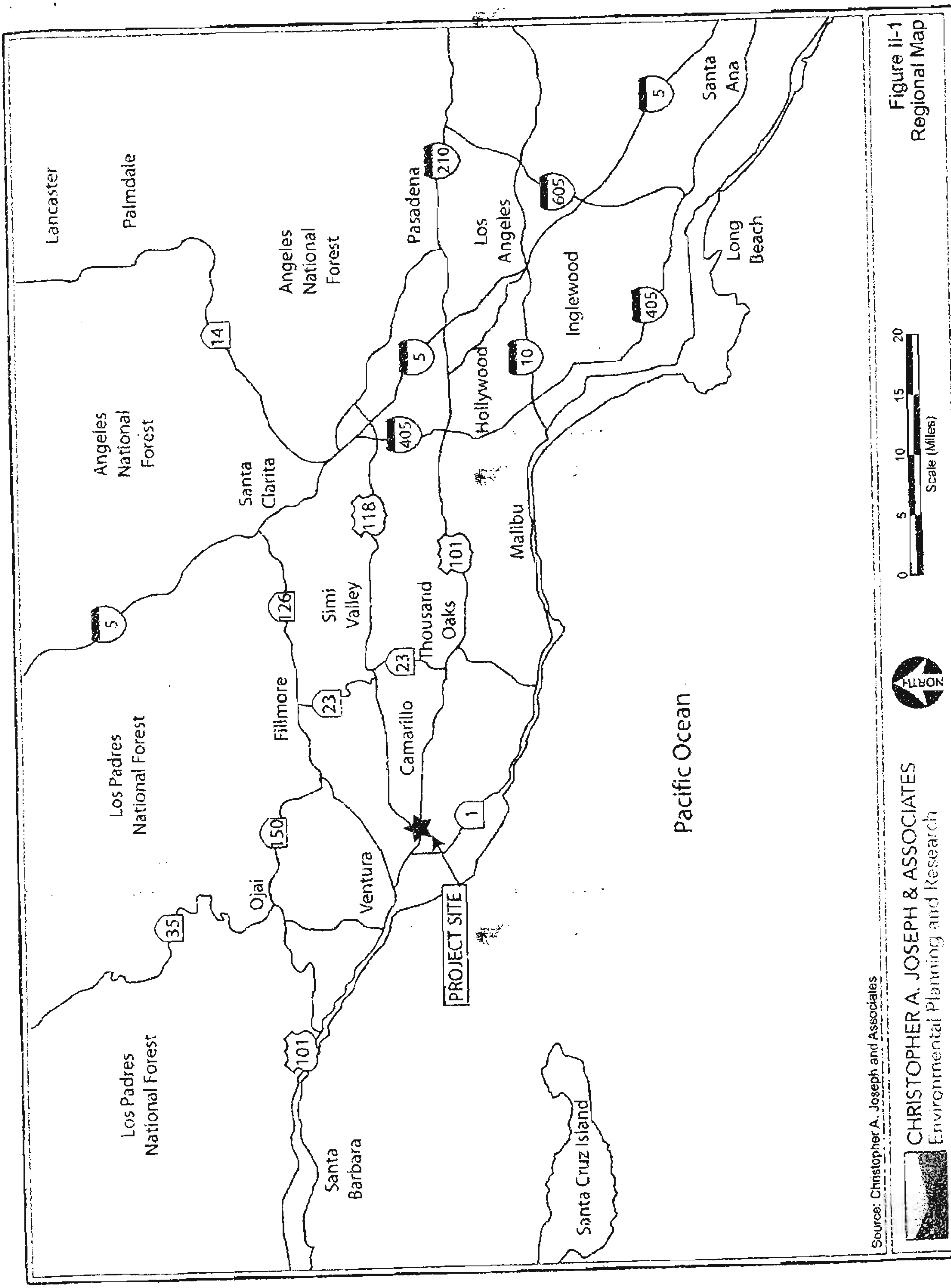


Figure II-1
Regional Map

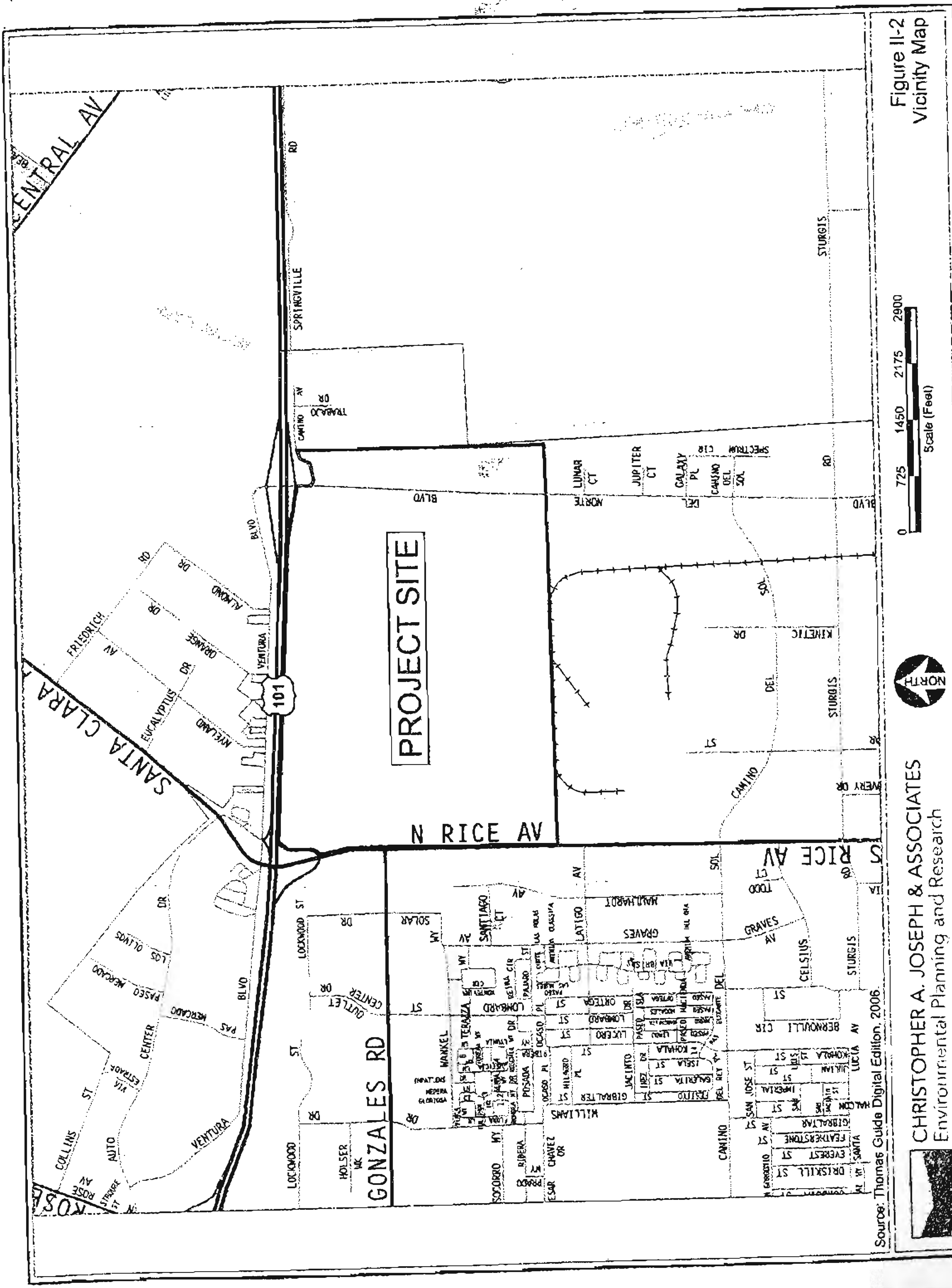


Figure II-2
Vicinity Map

CHRISTOPHER A. JOSEPH & ASSOCIATES
Environmental Planning and Research

Barbara Wulf
Recycling Specialist

Solid Waste Division
111 South Del Norte Blvd.
Oxnard, California 93030
Printed on 30% post consumer recycled paper

Direct (805) 385-8012
Office (805) 385-8060
Fax (805) 385-7935
Barbara.Wulf@ci.oxnard.ca.us
www.ci.oxnard.ca.us

Solid Waste Division/Refuse & Recycling

For general information and rate information for Refuse & Recycling Service call:
(805) 385-8060

If you have questions or need more information regarding your planning conditions for refuse and recycling, contact the following:

- For specifications regarding refuse and recycling bin enclosures and accessibility, contact Steven Soliz with the City of Oxnard's Solid Waste Division:

Telephone:	(805) 385-8069.
Fax:	(805) 487-3860
Email:	Steven.Soliz@ci.oxnard.ca.us

- For setting up a recycling plan and completing the recycling worksheets, contact Barbara Wulf, Recycling Specialist, City of Oxnard's Solid Waste Division:

Telephone:	(805) 385-8012.
Fax:	(805) 385-7935
Email:	Barbara.Wulf@ci.oxnard.ca.us

List of Worksheets* for Construction, Demolition, and Occupancy Recycling

1. **Solid Waste Management & Recycling Plan (C&D Plan)**
   Submit prior to issuance of building permit
   Provide information on how you plan to recycle at Construction/Demolition project area.

2. **Solid Waste Management & Recycling Report (C&D Report)**
   Submit prior to issuance of certificate of occupancy
   Provide report on what was actually recycled at Construction/Demolition project area.

3. **Occupancy Recycling Plan (Occupancy Plan)**
   Submit prior to issuance of certificate of occupancy
   Provide information on recycling plan during occupancy.

4. **Occupancy Recycling Report (Occupancy Report)**
   Submit annually on anniversary date of certificate of occupancy
   Provide report on what is actually recycled during occupancy.

***Worksheets can be faxed to you or downloaded at the following web site:**
http://ci.oxnard.ca.us/pubworks/refuse/construction/index.html

The information set forth below is for your reference when completing the forms. (This is the information that appears at the top of the spreadsheets in a gray box which may not be visible via a fax copy.)

Solid Waste Management & Recycling Methods

1. *On-site concrete and asphalt crushing for use on-site*
2. *On-site concrete and asphalt crushing for use off-site*
3. *On-site reuse other: mulching, chipping of greenwaste, etc.*
4. *Source Separation of materials hauled to recycling, composting, salvage, or other reuse facility*
5. *Mixed recyclables hauled to recycling facility*
6. *Landfilled/Disposed*
7. *Other (Specify*

City of Oxnard
C&D Solid Waste Management & Recycling *Plan*

Form must be submitted and approved prior to issuance of a building permit.

Date Submitted:_______

_____Approved
_____Further Information Needed
_____Denied

Staff Initials:___________

Applicant:		
Project Name:		**Project Number:**
Job Site:		**Total Square Footage of Project:**
Street Address:	**City, State, Zip:**	
Project Manager:	**Signature of Person Completing Form:**	
Phone: **Cell Phone:**	**Fax:**	**Email:**
Total Estimated Quantity of Material to be Diverted (reused, recycled): (See Other Side for C&D Plan Worksheet)		
Total Estimated Quantity of Material to be Disposed (landfilled): (See Other Side for C&D Plan Worksheet)		

The City is required by the California Integrated Waste Management Act of 1989, Assembly Bill 939, to divert 50% of waste generated from the landfills. Construction and Demolition (C&D) projects generate a significant amount of material that can be recycled. In order to comply with AB939, the City requires Applicant to minimize materials being landfilled by developing and implementing a Solid Waste Management & Recycling C&D Plan.

All Applicants shall prepare a **Solid Waste Management & Recycling *C&D Plan*** by completing the attached worksheet for materials generated during construction and/or demolition. Applicants shall divert from disposal at least 50% of materials generated at the project through reuse and recycling methods.

Applicant shall include the following information in the *C&D Plan*: material type to be recycled, reused, salvaged or disposed; estimated quantities to be processed; management method used; destination of material including the hauler name and facility location. The attached Solid Waste Management & Recycling *C&D Plan* worksheet or similar format shall be used. Additional pages may be added as needed. **The Solid Waste Management & Recycling *C&D Plan* must be submitted and approved prior to issuance of a building permit.**

After completion of construction and/or demolition, Applicant will complete the **Solid Waste Management & Recycling *C&D Report*** and provide legible copies of weigh tickets, receipts, or invoices for materials sent to disposal or reuse/recycling facilities. For other discarded or salvaged materials, Applicant must provide documentation, on letterhead, identifying where the materials were taken, type of materials, and tons or cubic yards disposed, recycled or reused, and identify the project generating the discarded materials. **The Solid Waste Management & Recycling *C&D Report* must be submitted and approved prior to issuance of a certificate of occupancy.**

SOLID WASTE MANAGEMENT & RECYCLING PLAN

Solid Waste Management & Recycling Methods Project Name______________

1. *On-site concrete and asphalt crushing for use* ***on-site***
2. *On-site concrete and asphalt crushing for use* ***off-site***
3. *On-site reuse other: mulching, chipping of greenwaste, etc.*
4. ***Source Separation*** *of materials hauled to recycling, composting, salvage, or other reuse facility*
5. *Mixed recyclables hauled to recycling facility*
6. *Landfilled/Disposed*
7. *Other (Specify)*

Material	Method # (See Above)	Hauler/Self-Haul (N/A if reused on site)	Destination Facility/Location	Estimated Quantities			Comments
				Tons	Cubic Yd.	Units	
Example: Cardboard	*4*	*self-haul*	*Del Norte Recycling/Oxnard*		*4*		
Asphalt							
Brick/Tile							
Cardboard							
Carpet/Foam/Padding							
Mixed Recyclables (bottles, cans, etc.)							
Concrete							
Dirt (clean)							
Drywall (new construction)							
Glass/Plate/Window							
Glass/Other							
Green Waste: Yard Trimmings, Trees, stumps, etc.							
Metals (Specify)							
Paint							
Rocks							
Wood							
Pallets							
Other Salvage Material							
Appliances (water heaters, air conditioners)							
Cabinets							
Doors							
Drywall old construction							
Fixtures (shower stalls, sinks, toilets, hardware, etc.)							
Garage Doors							
Mixed Trash							
Other (describe)							
			TOTAL				

Add Additional Pages If Needed

City of Oxnard
C&D Solid Waste Management & Recycling
Report For Work Completed

Form must be submitted and approved prior to issuance of certificate of occupancy.

Date Submitted:_______

_____Approved
_____Further Information Needed
_____Denied

Staff Initials:___________

Applicant:		
Project Name:		**Project Number:**
Job Site:		**Total Square Footage of Project:**
Street Address:		
City, State, Zip:		
Project Manager:	**Signature of Person Completing Form:**	
Phone: **Cell Phone:**	**Fax:**	**Email:**
Total Quantity of Material Diverted (reused, recycled): (See Other Side for C&D Report Worksheet)		
Total Quantity of Material Disposed (landfilled): (See Other Side for C&D Report Worksheet)		

The City is required by the California Integrated Waste Management Act of 1989, Assembly Bill 939, to divert 50% of waste generated from the landfills. Construction and Demolition (C&D) projects generate a significant amount of material that can be recycled. In order to comply with AB939, the City requires Applicant to minimize materials being landfilled by developing and implementing a Solid Waste Management & Recycling C&D Plan and documenting results in the Solid Waste Management & Recycling C&D Report.

After completion of construction and/or demolition, Applicant shall prepare a **Solid Waste Management & Recycling *C&D Report*** by completing the attached worksheet and by providing legible copies of weigh tickets, receipts, or invoices for materials sent to disposal or reuse/recycling facilities. For other discarded or salvaged materials, Applicant must provide documentation, on letterhead, identifying where the materials were taken, type of materials, and tons or cubic yards disposed, recycled or reused, and identify the project generating the discarded materials. **The Solid Waste Management & Recycling *C&D Report* must be submitted and approved prior to issuance of a certificate of occupancy.**

Applicant shall also prepare a Solid Waste Management & Recycling *Occupancy Plan*. The Solid Waste Management & Recycling *Occupancy Plan* must be submitted and approved prior to issuance of a certificate of occupancy.

SOLID WASTE MANAGEMENT REPORT FOR COMPLETED WORK Period Covered: __________ through __________ **C&D REPORT**

Solid Waste Management & Recycling Methods Project Name ____________________

1. *On-site concrete and asphalt crushing for use* ***on-site***
2. *On-site concrete and asphalt crushing for use* ***off-site***
3. *On-site reuse other: mulching, chipping of greenwaste, etc.*
4. ***Source Separation*** *of materials hauled to recycling, composting, salvage, or other reuse facility*
5. *Mixed recyclables hauled to recycling facility*
6. *Landfilled/Disposed*
7. *Other (Specify)*

Material	**Method #** (See Above)	Hauler/Self-Haul (N/A if reused on site)	Destination Facility/Location	Actual Quantities			Description/Comments/ Other/Weigh Tix Attached
				Tons	Cubic Yd.	Units	
Example: Cardboard	*4*	*self-haul*	*Del Norte Recycling/Oxnard*		*4*		*Weight ticket attached*
Asphalt							
Brick/Tile							
Cardboard							
Carpet/Foam/Padding							
Mixed Recyclables (bottles, cans, etc.)							
Concrete							
Dirt (clean)							
Drywall (new construction)							
Glass/Plate/Window							
Glass/Other							
Green Waste: Yard Trimmings, Trees, stumps, etc.							
Metals (Specify)							
Paint							
Rocks							
Wood							
Pallets							
Other Salvage Material							
Appliances (water heaters, air conditioners)							
Cabinets							
Doors							
Drywall old construction							
Fixtures (shower stalls, sinks, toilets, hardware, etc.)							
Garage Doors							
Mixed Trash							
Other (describe)							

Add Additional Pages If Needed **TOTAL** ______ ______ ______

City of Oxnard
C&D Solid Waste Management & Recycling
Occupancy Plan

Form must be submitted and approved prior to issuance of certificate of occupancy.

Date Submitted:_______

_____Approved
_____Further Information Needed
_____Denied

Staff Initials:___________

Applicant:		
Project Name:		**Project Number:**
Job Site:		**Total Square Footage of Project:**
Street Address:	**City, State, Zip:**	
Project Manager:	**Signature of Person Completing Form:**	
Phone: **Cell Phone:**	**Fax:**	**Email:**
Total Estimated Quantity of Material to be Diverted (reused, recycled): (See Other Side for Occupancy Plan Worksheet)		
Total Estimated Quantity of Material to be Disposed (landfilled): (See Other Side for Occupancy Plan Worksheet)		

The City is required by the California Integrated Waste Management Act of 1989, Assembly Bill 939, to divert 50% of waste generated from the landfills. Projects generate a significant amount of material that can be recycled during occupancy. In order to comply with AB939, the City requires Applicant to minimize materials being landfilled by developing and implementing a Solid Waste Management & Recycling Occupancy Plan to the extent possible.

All Applicants shall prepare a **Solid Waste Management & Recycling *Occupancy Plan*** by completing the attached worksheet for materials likely to be generated during occupancy. The goal of the Occupancy Plan shall be to divert from disposal at least 50% of materials generated through reuse and recycling methods. Applicant shall provide a drawing that shows the location and dimensions for the refuse and recycling bins, enclosures, and balers, if applicable. The purpose is to ensure the project has been designed with sufficient space for the collection and loading of all refuse and recyclables generated.

Applicant shall include the following information: material type to be recycled, reused, salvaged or disposed; estimated quantities; management method; destination of material including the hauler name and facility location. The attached Solid Waste Management & Recycling *Occupancy Plan* worksheet or similar format shall be used. Additional pages may be added as needed. **The Solid Waste Management & Recycling *Occupancy Plan* must be submitted and approved prior to issuance of a certificate of occupancy.**

During occupancy, Occupant will complete the Solid Waste Management & Recycling Occupancy Report and provide legible copies of weigh tickets, receipts, or invoices for materials sent to disposal or reuse/recycling facilities. For other discarded or salvaged materials, Applicant must provide documentation, on letterhead, identifying where the materials were taken, type of materials, and tons or cubic yards disposed, recycled or reused, and identify the project generating the discarded materials. The Solid Waste Management & Recycling Occupancy Report **shall be submitted annually.**

SOLID WASTE MANAGEMENT & RECYCLING OCCUPANCY PLAN

Solid Waste Management & Recycling Methods

Project Name____________________

1. ***Collection in mixed recycling bin & hauled to recycling facility***
2. ***Re-used on site***
3. ***Other on-site reuse: Grasscycling, mulching, chipping of greenwaste, etc.***
4. ***Source Separation of materials (i.e. cardboard, landscape trimmings) hauled to recycling, composting, salvage, or other reuse facility***
5. ***Not enough generated to recycle***
6. ***Landfilled/Disposed***
7. ***Other (Specify) or Hazardous Waste hauler***

Materials Generated	Method # (See Above)	Hauler/Self-Haul (N/A if reused on site)	Destination Facility/Location	Estimated Quantities			*Number/location of Refuse & Recycling Bins
				Tons	Cubic Yd.	Units	
Example: Mixed Recycling	*1*	*City of Oxnard*	*Del Norte Recycling/Oxnard*		*8yd/week*		*(two) 4 yard recycle bins/week*
Example: Trash	*6*	*City of Oxnard*	*Del Norte Transfer Station*		*4yd/week*		*(one)4 yard refuse bin/week*
Mixed Recycling (bottles, cans, paper, newspaper, catalogs, phone books, magazines, office paper, paper bags, cardboard, etc.)							
Cardboard							
Carpet/Foam/Padding							
Concrete							
Construction/Demolition material							
Dirt (clean)							
Food							
Glass/Plate/Window							
Grass Clippings							
Green Waste: Leaves, Landscape Trimmings, Trees, Stumps, etc.							
Metals (Specify)							
Wood/Lumber/Pallets							
Plastic/FilmWrap/Other							
Produce Trimmings							
Salvage Material							
Textiles							
Appliances/Electronics (computers, water heaters, air conditioners, etc.)							
HazardousWaste/Paint							
Batteries							
Tires							
Mixed Trash							
Other (describe)							
			TOTAL	____	____	____	

***Attach drawing of enclosures and indicate recycling & trash bins**

City of Oxnard
C&D Solid Waste Management & Recycling
Occupancy Report

Form must be submitted and approved prior to issuance of certificate of occupancy.

Date Submitted:_______

_____Approved
_____Further Information Needed
_____Denied

Staff Initials:___________

Applicant:		
Project Name:		**Project Number:**
Job Site:		**Total Square Footage of Project:**
Street Address:	**City, State, Zip:**	
Project Manager:	**Signature of Person Completing Form:**	
Phone: **Cell Phone:**	**Fax:**	**Email:**
Quantity of Material Diverted (reused, recycled): (See Other Side for Occupancy Report Worksheet)	**From**	**through**
Quantity of Material Disposed (landfilled): (See Other Side for Occupancy Report Worksheet)	**From**	**through**

The City is required by the California Integrated Waste Management Act of 1989, Assembly Bill 939, to divert 50% of waste generated from the landfills. Occupants generate a significant amount of material that can be recycled. In order to comply with AB939, the City requires Occupant to minimize materials being landfilled by at least 50% through implementation of waste reduction and recycling efforts.

Occupants shall prepare a **Solid Waste Management & Recycling *Occupancy Report*** by completing the attached worksheet for materials generated during occupancy. The goal of the *Occupancy Report* shall be to identify the amount of materials being disposed and the amount being diverted through waste reduction and recycling efforts.

Occupant shall include the following information: material type recycled, reused, salvaged or disposed; quantities; management method; destination of material including the hauler name and facility location. The attached Solid Waste Management & Recycling *Occupancy Report* worksheet or similar format shall be used. Additional pages may be added as needed.

The Report shall include legible copies of weigh tickets, receipts, or invoices for materials sent to disposal or reuse/recycling facilities. For other discarded or salvaged materials, Applicant must provide documentation, on letterhead, identifying where the materials were taken, type of materials, and tons or cubic yards disposed, recycled or reused, and identify the project generating the discarded materials. **The Solid Waste Management & Recycling Occupancy Report** shall be submitted annually.

SOLID WASTE MANAGEMENT & RECYCLING OCCUPANCY REPORT Period Covered:__________ through __________ *OCCUPANCY REPORT*

Solid Waste Management & Recycling Methods Project Name__________

1. *Collection in mixed recycling bin & hauled to recycling facility*
2. *Re-used on site*
3. *Other on-site reuse: Grasscycling, mulching, chipping of greenwaste, etc.*
4. *Source Separation of materials (i.e. cardboard, landscape trimmings) hauled to recycling, composting, salvage, or other reuse facility*
5. *Not enough generated to recycle*
6. *Landfilled/Disposed*
7. *Other (Specify) or Hazardous Waste hauler*

Materials Generated	Method # (See Above)	Hauler/Self-Haul (N/A if reused on site)	Destination Facility/Location	Quantities			Number of Refuse & Recycling Bins Used
				Tons	Cubic Yd.	Units	
Example: Mixed Recycling	*1*	*City of Oxnard*	*Del Norte Recycling/Oxnard*		*8yd/week*		*(two) 4 yard recycle bins/week*
Example: Trash	*6*	*City of Oxnard*	*Del Norte Transfer Station*		*4yd/week*		*(one)4 yard refuse bin/week*
Mixed Recycling (bottles, cans, paper, newspaper, catalogs, phone books, magazines, office paper, paper bags, cardboard, etc.)							
Cardboard							
Carpet/Foam/Padding							
Concrete							
Construction/Demolition material							
Dirt (clean)							
Food							
Glass/Plate/Window							
Grass Clippings							
Green Waste: Leaves, Landscape Trimmings, Trees, Stumps, etc.							
Metals (Specify)							
Wood/Lumber/Pallets							
Plastic/FilmWrap/Other							
Produce Trimmings							
Salvage Material							
Textiles							
Appliances/Electronics (computers, water heaters, air conditioners, etc.)							
HazardousWaste/Paint							
Batteries							
Tires							
Mixed Trash							
Other (describe)							
			TOTAL	____	____	____	

Add Additional Pages If Needed

UNITED WATER CONSERVATION DISTRICT

"Conserving Water Since 1927"

March 15, 2006

Mr. Christopher Williamson
City of Oxnard
Planning and Environmental Services
305 West Third Street
Oxnard, CA 93030

Reference: **Notice of Preparation of a Draft EIR for the Sakioka Farms Specific Plan Project - State Clearinghouse # 2002071070**

Dear Mr. Williamson,

United Water Conservation District has a couple of comments on the Sakioka Farms Specific Plan Project. While these comments are past the comment period, the information would probably be beneficial for the EIR.

In addition to pumping groundwater, the Sakioka Farm has been receiving water from United Water's Pumping Trough Pipeline (PTP). The PTP delivers water for agricultural purpose within the area of the Oxnard Plain historically impacted by over-pumping of the Upper Aquifer System (UAS). Excessive pumping resulted in seawater intrusion of the UAS. PTP water will not be available for the planned land use of this site. Presumably, the City of Oxnard will have the responsibility to deliver water to future commercial, light industrial, business, office, park, and fire station needs.

Determining the amount of additional groundwater pumping available to the City of Oxnard, as a result of the conversion of agricultural property to urban land use, is within the purview of the Fox Canyon Groundwater Management Agency (GMA). Although the GMA should be contacted to determine the official amount of historical allocation for this property, based on GMA Ordinance 8.1, Section 5.3.3, it appears that the minimal extraction allocation for the proposed 392-acre site would be 2 acre-feet/year per acre of property, or 784 acre-feet per year.

Pumping amounts reported to United Water and records for PTP pipeline deliveries for the years 1995 through 2004 shows water demand for the Sakioka Farm was met by three agricultural wells located on the property and water available via the PTP. The three

106 N. 8th Street • Santa Paula, California 93060 • Phone (805) 525-4431 • FAX: (805) 525-2661

UNITED WATER CONSERVATION DISTRICT

wells supplied an average of 764 acre-feet per year and the PTP delivered an average of 503 acre-feet per year. Whether some of the water was used outside the boundary of the Sakioka Farm is unknown.

Historically, the PTP has had two sources of water; 1) surface water diversions from the Santa Clara River, and 2) groundwater extraction from the Lower Aquifer System (LAS). During years of higher flow of the Santa Clara River, more surface water is available to the PTP. During drier years, and therefore less Santa Clara River flow, increased pumping of the PTP wells is required to meet part of the demand by participating farmers within the PTP service area. As a means to fight ongoing overdraft of groundwater and seawater intrusion in the Oxnard Plain, United Water supports decreased pumping from the LAS in the Oxnard Plain, especially further to the south and closer to the coast. The conversion of the Sakioka Farm from agricultural land use to urban land use, and the subsequent decreased demand for pumping of the LAS (by PTP wells) is a positive influence associated with this project. This project effectively shifts pumping from the LAS further south on the Oxnard Plain, to the UAS (and potentially LAS) pumping in the northern Oxnard Plain or the Forebay.

Please contact Ken Turner at (805) 525-4431, if you have any questions or comments.

Sincerely,

Dana L Wisehart

Dana L. Wisehart
General Manager

Cc: BDRF
Jeff Pratt, Fox Canyon Groundwater Management Agency

File: City of Oxnard

Ventura County
Air Pollution
Control District

669 County Square Drive
Ventura, California 93003

tel 805/645-1400
fax 805/645-1444
www.vcapcd.org

Michael Villegas
Air Pollution Control Officer

RECEIVED
FEB 16 2006
PLANNING DIVISION
CITY OF OXNARD

February 13, 2006

Christopher Williamson, AICP
Senior Planner
City of Oxnard Planning and Environmental Services
305 West Third Street
Oxnard, CA 93030

SUBJECT: Request for Review of Reissuance of Notice of Preparation (NOP) of a Draft Environmental Impact Report (Draft EIR) for the Sakioka Farms Specific Plan Project, City of Oxnard (Former Reference No. 02-057)

Dear Mr. Williamson:

Air Pollution Control District (APCD) staff has reviewed the reissued NOP of the Draft EIR for the Sakioka Farms Specific Plan Project. The reissued NOP reflects an updated development proposal for the proposed project. The Specific Plan project is proposed for a 430-acre area in the northeastern portion of the City of Oxnard. It would replace the current zoning of the site and provide the framework, guidelines, standards, and regulations for orderly phased development of the current agricultural site over a number of years. The revised development proposal includes uses contemplated within the previously prepared EIR for the project and does not differ significantly from the 2002 proposal. However, the residential component of the Specific Plan has been removed. The current land uses proposed include 100,000 sq. ft. of commercial, 5,500,000 sq. ft. light industrial, 2,500,000 sq. ft. business/research, 400,000 sq. ft. office, a park and a fire station.

District staff recommends that the air quality section of the Draft EIR be prepared in accordance with the 2003 *Ventura County Air Quality Assessment Guidelines* (2003 Guidelines). A copy of the 2003 Guidelines can be accessed from the downloadable materials section of the APCD website at www.vcapcd.org. Specifically, the air quality assessment should consider Reactive Organic Gases (ROG) and Nitrous Oxides (NO_X) emissions from all project-related motor vehicles and construction equipment. Additionally, the air quality assessment should consider potential impacts from fugitive dust, including PM_{10} that will be generated by construction activities.

AQMP Consistency

The Draft EIR should also address the proposed project's consistency with the Ventura County Air Quality Management Plan (AQMP). A project that is determined to be inconsistent with the AQMP is also determined to have a significant cumulative adverse air quality impact. Chapter 4 – Air Quality Management Plan Consistency, of the District's 2003 Guidelines, provides guidance on determining a project's AQMP consistency.

Carbon Monoxide

A carbon monoxide (CO) screening analyses should be conducted for any project-impacted roadway intersections that are currently operating, or which are expected to operate, at Levels of Service D, E, or F, or at any project-impacted roadway that may be a CO hotspot. If a potential hotspot is identified, the District recommends that a complete CALINE3 or CALINE4 carbon monoxide analyses be conducted for that intersection.

Air Toxics Evaluation

This project will involve a large amount of grading and construction work, taking place over an extended timeframe, through 2020. The California Air Resources Board (CARB) has identified diesel exhaust particulate matter as a TAC. Diesel exhaust includes hundreds of different gaseous and particulate components, many of which are toxic. The heavy equipment used for grading and construction of this project has the potential to expose sensitive populations in the vicinity to elevated levels of diesel exhaust. The District recommends that this potential impact be analyzed and mitigation measures be identified and discussed in the Draft EIR.

Section 2.6, Toxic Air Contaminants, of the 2000 Guidelines describes how a TAC can impact sensitive populations. In addition, Section 6.5 of the Guidelines discusses in more detail, methods of assessing TAC impacts. Methods of TAC mitigation are discussed in Section 7.5.6 of the 2000 Guidelines.

Additional information on TAC's can be obtained from the District's website at http://www.vcapcd.org/air_toxics.htm. If you have further questions regarding Air Toxics, please contact Air Quality Specialist Terri Thomas at (805) 645-1405 or by email at terri@vcapcd.org.

Project Mitigation

A number of mitigation measures that could be included for air quality mitigation are identified in the District's 2003 *Ventura County Air Quality Assessment Guidelines*. Section 7.5.3 of the District's 2003 Guidelines contains a mitigation measure called the Off-Site Transportation Demand Management (TDM) Fund that can be used to mitigate project air emissions that exceed the reactive organic compound or oxides of nitrogen significance thresholds. It calls for contributing to a mobile source emission reduction fund established specifically to reduce emissions from transportation sources.

If a contribution to an Off-Site TDM fund is used, the contributions should not be used for traffic engineering projects, including signal synchronization, intersection improvements, and channelization, as the benefits from these projects are primarily traffic-related and not air quality-related. Potential programs to utilize off-site contributions should also be discussed in the Draft EIR.

The District recommends that this mitigation measure be implemented only after all feasible area and operational mitigation measures have been applied to the project, and project emissions are still significant.

If you have any questions, contact me by telephone at (805) 645-1426 or by email at alicia@vcapcd.org.

Sincerely,

Alicia Stratton

Alicia Stratton
Planning and Monitoring Division

Appendix C
Related Projects

Planning and Environmental Services Division
City of Oxnard
305 W. Third St., Oxnard, CA 93030
(805) 385-7858 Fax: (805) 385-7417
http://www.ci.oxnard.ca.us

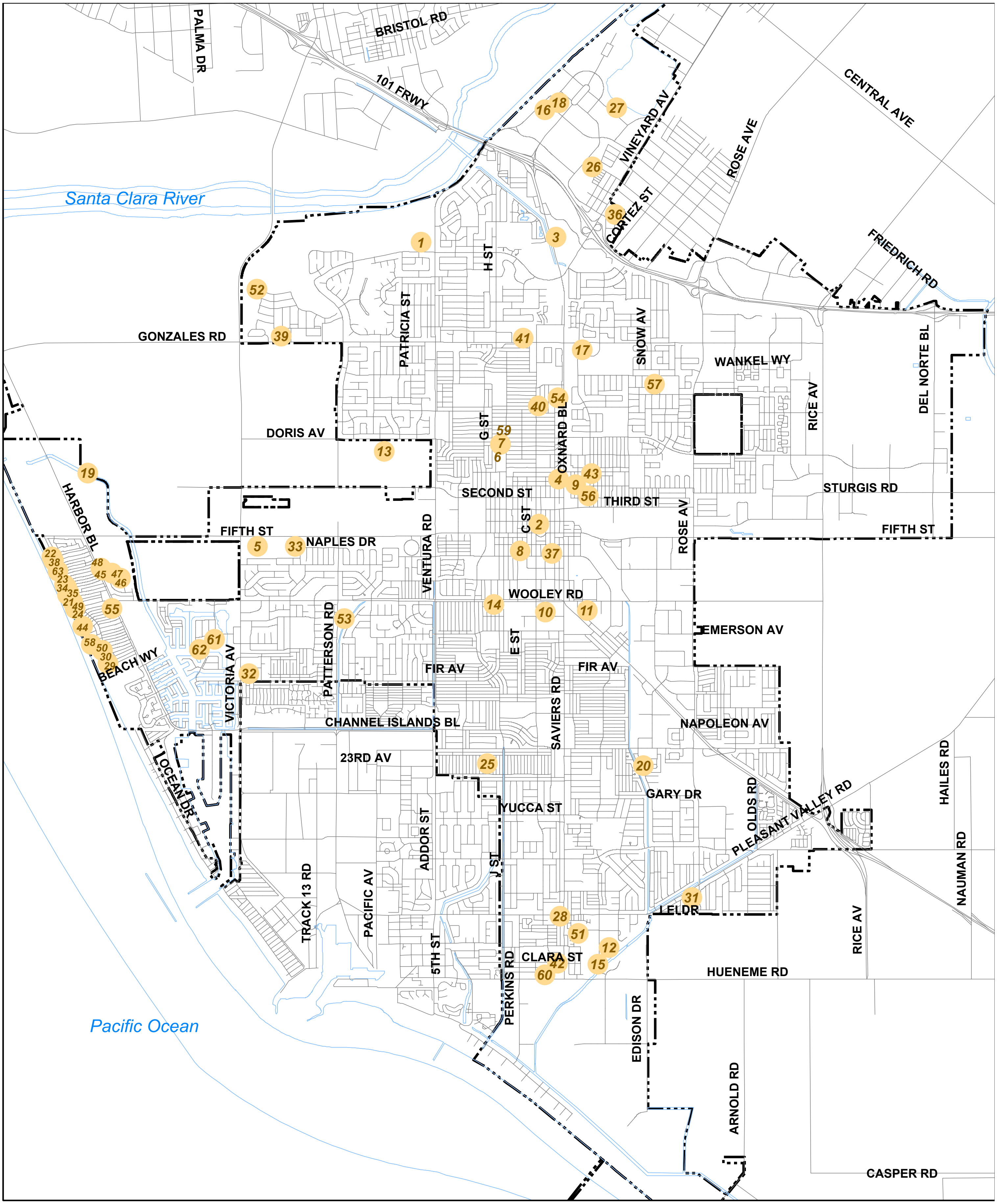
DEVELOPMENT PROJECT LIST

The City of Oxnard is happy to provide a summary of proposed developments within the City. The development summary tables are divided into residential, commercial and industrial categories. The city's project planner for each project is identified by the two-letter initials shown to the right of each project. The following table provides a list of names and phone numbers for each project planner.

Initials	Project Planner	Phone Number
SM	Sue Martin	805-385-8207
AG	Ashley Golden	805-385-7882
NG	Nathan Gapper	805-385-7886
JM	Juan Martinez	805-385-7556
CW	Chris Williamson	805-385-8156
KM	Kathleen Mallory	805-385-7858
LW	Linda Windsor	805-385-7849
WW	Winston Wright	805-385-7952
JR	Jared Rosengren	805-385-8312

Note: This list was prepared by the City of Oxnard, Planning and Environmental Services Division, for informational purposes only. The City does not warrant the accuracy of the information provided. For inquiries regarding price and availability, please contact the developer directly at the number provided.

Revised January, 2005



Residential Projects

0 0.5 1 2 3 4 Miles

Planning & Environmental Services

January 2006

City of Oxnard Planning & Environmental Services Residential Project List

ID	DEVELOPER	PHONE	PROJECT	APN	NUMBER	DIR	STREET	SUFFIX	STATUS	PERMIT	TYPE	PZ	PLNR	NOTES
1	Darren Embry	310-385-5078	*Ventura/Vineyard*	179004017	1801	W	Vineyard	AV	1		PD	06-540-1	*CW*	180 SF Homes. APN 179004018
2	Oxnard Plaza Association	805-983-8674	*North Plaza*	202010120			C	ST	1		SUP	05-500-25	*AG*	Redevelopment of 1.43 Acres(15 parcels) Including Partial Vacation of N. Fifth St. & Demolition of a 12,750 sq.ft. Structure. 2 mixed-use Buildings with 7,00 sqft. of Retail and Five Stories of For-Sale Condominiums.
3	Avion Development	619-243-2476	*Channel Islands Center*	142001034	2420	N	Oxnard	Bl	1		PD	05-540-4	*AG*	Proposed 3 Towers Consisting of Residential Units & Mixed Use Commercial. 953 Residential Units on 8.67 Acres on the NW Corner of Oxnard Bl. & N. Vineyard Av.
4	Jaime Parga	805-240-5952	*Gonzales Building*	202055030	130	W	Magnolia	AV	1		SUP	05-500-05	*JM*	Mixed use (3 res units/ 2450 sqft Commercial)
5	D.R. Horton	661-257-3399	*Rancho Victoria*	185017005	3600	W	Fifth	ST	2		MJMD	05-550-2	*CW*	105 Condominiums, 2,400 SQFT of Commercial
6	American Housing	213-487-2400	*Sycamore gardens*	200029130	333	N	F	ST	2		MJMD	05-550-1	*CW*	40 Condominiums
7	American Housing	213-487-2400	*Doris "7"*	200029130			Doris	AV	2		PD	05-540-1	*CW*	7 SF detached Homes.
8	DAL Properties	805-988-0912	*DAL "E" Street Residential*	202013412	636	S	E	ST	1		SUP	05-500-22	*LW*	3-unit Condominium & General Plan Amendment.
9	Jesus Alvarez	805-947-9254	*Unnamed*	201011233	109	N	Hayes	AV	1		SUP	05-500-21	*NG*	1 SF Residence.
10	Lauterbach & Associates	805-988-0912	*Unnamed*	203007020	251		Wolff	ST	1		PD	05-540-2	*WW*	13 Attached Residential Apartment Units.
11	Olson Company	310-301-0029	*Gateway Walk*	204002026	1250	S	Oxnard	BL	1		GPA	05-620-07	*JR*	138 Including Detached/Attached SF Units and Mixed Use Units.
12	Paragon Communities	909-936-0963	*Westwinds II*	222005218	5482		Cypress	RD	1		SUP	05-500-24	*JR*	47 Condominium units at 5482 & 5536 Cypress Rd. Includes Proposed General Plan Amendment
13	Sun Cal Companies	818-444-1600	*Teal Club Specific Plan*	183007009			Teal Club	RD	1	05-6-1	SUP	05-600-1	*KM*	Mixed Use Residential, 1050-1150 SF, Townhouses and Condominium D
14	Alex Semchenko	805-487-7472	*Unnamed*	203004117	824	W	Wooley	RD	1		SUP	05-500-12	*SM*	Mixed use 343 Sq. Commercial & 950 Sq. ft. Residential units
15	Pat McCarthy Construction	805-485-4646	*Cypress Cove*	222007015	5701		Cypress	RD	1	T5605	SUP	05-300-14	*LW*	32 Attached Condominiums. Also 5721 Cypress Rd
16	Riverpark Apartment Ventures	805-981-3877	*RiverPark Apartments*	132011004					3	05-5477	DDR	05-200-03	*JM*	400 Apts on 14.86 acre site. Lots 4,5,7,& 8 of T5352-1
17	Centex	661-799-1344	*Oxnard Complex*	215001010			Gonzales	RD	1		PD	05-540-3	*CW*	114 SF dwelling Units and a 10 Acre Park.
18	RiverPark Legacy, LLC	818-874-2300	*Unnamed*	132011002					2	TSM 5538	DDR	05-200-02	*JM*	411 SF Attached Condominium Dwelling Units. APNs: 132011002,03,28
19	Trimark Pacific	818-706-9797	*North Shore*	183001069		W	Fifth	ST	2	T5592	CDP	05-500-4	*LW*	183 SF Homes & 109 Detached Condos. NE Corner of Fifth S. & Harbor Bl. ALSO PZ 05-300-8 TM, APN183001070
20	Juan Cervantes	805-207-1837	*Cervantes Condo Complex*	221006316			Cheyenne	WY	1		SUP	05-502-1	*SM*	5 Condominiums.
21	Roy Milbrandt	805-636-0185	*Silver SFD*	191008101	1031		Mandalay Beach	RD	4	05-3461	CDP	05-400-1	*WW*	Beachfront Single-Family Residence
22	Walt Phillip	805-644-5594	*Wallin SFD*	191019034	685		Mandalay Beach	RD	4		CDP	05-400-3	*WW*	Beachfront Single-Family Residence
23	Jim Sandefer	805-207-4894	*Sandefer SFD*	191005137	951		Mandalay Beach	RD	4	05-3724	CDP	05-400-5	*WW*	Beachfront Single-Family Residence
24	Phillip Jon Brown	310-247-0725	*Herzoff SFD*	191009102	1115		Capri	WY	1		CDP	05-400-6	*WW*	Beachfront Single-Family Residence
25	Vern Gill	805-382-9697	*Wilhite Duplex*	205004506	4931		Dunes	CR	1		CDP	05-300-130 & 05-	*WW*	Coastal Duplex. 4931 & 4935 Dunes Cr

RESIDENTIAL PROJECT STATUS: *1-PROPOSED 2-APPROVED 3-PLAN CHECK 4-UNDER CONSTRUCTION*

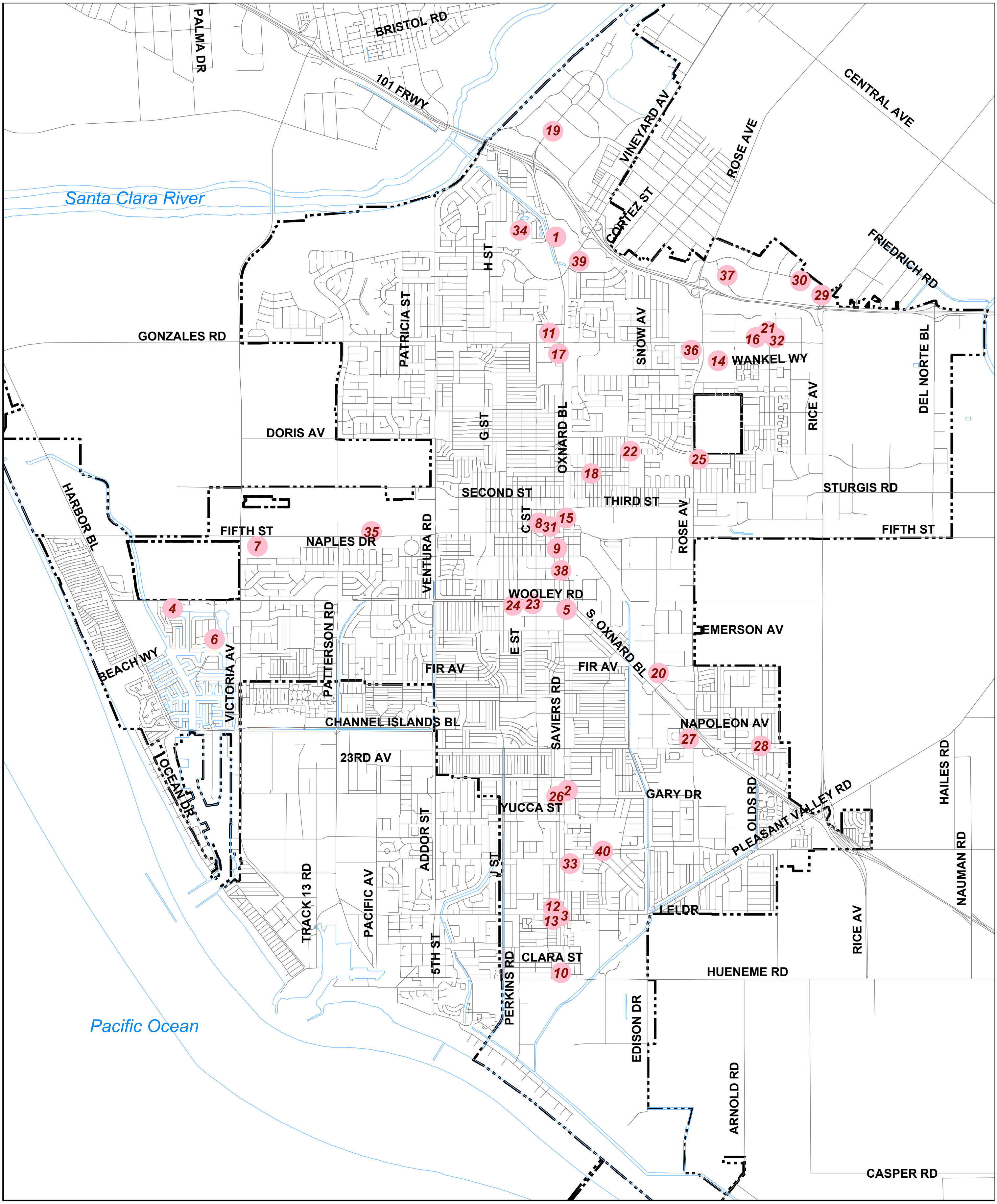
Revised January 2006

City of Oxnard Planning & Environmental Services Residential Project List

ID	DEVELOPER	PHONE	*PROJECT*	APN	NUMBER	DIR	STREET	SUFFIX	STATUS	PERMIT	TYPE	PZ	*PLNR*	NOTES
26	RiverPark Legacy, LLC	818-874-2300	*Unnamed*	132011010					3	TSM 5536	DDR	04-200-12	*JM*	234 Attached Condos APNs: 132011010, 132012015
27	RiverPark Legacy, LLC	818-874-2300	*Unnamed*	132012008					3	TSM 5537	DDR	04-200-13	*JM*	183 SF Homes. 142 Detached with 41 Attached Condos. APNs:132012008, 09, 10
28	Lauterbach & Associates	805-988-0912	*DAL- Villa San Lorenzo*	222010201	130	W	Pleasant Valley	RD	1		SUP	04-500-29	*JM*	Mixed Use, 16 Condominiums/ 1044 SQFT Commercial. SWC Saviers R
29	Roy Milbrandt	805-636-0185	*Beretta SFD*	191042012	1621		Mandalay Beach	RD	3		CDP	04-400-16	*WW*	Beachfront Single-Family Residence
30	Roy Milbrandt	805-636-0185	*Weber SFD*	191042001	1501		Mandalay Beach	RD	4	04-7175	CDP	04-400-15	*WW*	Beachfront Single-Family Residence
31	Tucker Investments	818-223-9499	*Rose/Pleasant Valley*	224002028			Pleasant Valley	RD	1		SUP	04-500-03	*KM*	98 Condos/12 Live Work. Rose & Pleasant Valley
32	Tucker Investments	818-223-9499	*Victoria/Hemlock*	187006009			Hemlock	ST	1		SUP	05-500-06	*KM*	130 Condos/17 Live Work. Victoria & Hemlock APN:1870060095,105
33	Centex Homes	661-799-1364	*Wingfield*	183015048			Dunkirk	DR	4	T5640	SUP	04-500-1	*WW*	41 SF Homes Also APN 183-0-150-485 & 535. Near SWC of Fifth Street & Victoria Avenue
34	Jim Sandefer	805-206-4894	*Unnamed*	191005140	965		Mandalay Beach	RD	4	04-2694	CDP	04-400-1	*AG*	1 SF Beachfront Home
35	Roy Milbrandt, Architect	805-639-0185	*McCormick*	191005147	1025		Mandalay Beach	RD	4		CDP	04-400-10	*AG*	1 SF Beachfront Home
36	D2 Development	818-222-2530	*Courtyard at Vineyard*	145023217	2600	E	Vineyard	AV	2		SUP	04-500-4	*AG*	259 Condo Units
37	Olson Development/Henry Wang	805-384-0143	*Heritage Walk*	202014309	651	S	A	ST	3	05-7148	SUP	04-500-3	*AG*	12 Residential Condos. 7th and "A" Street (651, 655, 657 A St)
38	Gary Oppenheimer	818-991-0511	*Unnamed*	191004120	721		Mandalay Beach	RD	4	04-2720	CDP	04-400-11	*LW*	1 SF Beachfront Home
39	Todd Temanson/Harlyn Homes	805-981-3877	*Aviara Lane*	179024001			Belmont	LN	4	04-200-09	DDR	04-200-09	*KM*	28 SF Homes. Gonzales Road s/w Belmont Lane and Merion Way
40	Martin Navarro	805-320-9210	*Unnamed*	200009119	1014	N	C	ST	4	04-1150	SUP	04-550-11	*LW*	1 SF Home
41	Michael Faulconer	805-648-2394	*Gonzales Condominium*	139025003	457	W	Gonzales	RD	2		SUP	04-600-6	*KM*	36 Attached Condominiums
42	Juan Cervantes	805-207-1837	*Cervantes Condo Complex*	222001129	5489		Saviers	RD	1		SUP	04-500-33	*SM*	9 Attached Condominiums
43	PG Construction	818-551-1319	*Unnamed*	201012219	506		Cooper	RD	2		SUP	04-500-35	*LW*	Mixed Use, 4 apartments
44	Douglas Peters	310-204-8950	*Pickett Residence*	191013237	1251		Capri	WY	3		CDP	04-400-18	*CW*	1 SF Home
45	Larry McGrath	805-984-6101	*LM Duplex*	196006006	811		Dunes	ST	4		CDP	04-400-21	*CW*	Duplex
46	Larry McGrath	805-984-6101	*LM Duplex*	196002309	909		Catamaran	ST	4		CDP	04-400-20	*CW*	Duplex
47	Larry McGrath	805-984-6101	*LM Duplex*	196002205	5001		Catamaran	ST	4		CDP	04-400-19	*CW*	Duplex
48	Larry McGrath	805-984-6101	*LM Duplex*	196001028	801		Dunes	ST	4		CDP	04-400-22	*CW*	Duplex
49	Chris Friedger	818-848-2803	*Unnamed*	191008131	1073		Mandalay Beach	RD	4		CDP	03-400-13	*AG*	Remodel/additions to existing SF Beachfront home
50	El Dorado Carriage House	818-990-5084	*Unnamed*	191042001	1501		Mandalay Beach	RD	3	04-7175	CDP	03-400-6	*LW*	SF Beachfront Home
51	Paragon Communities	310-301-0029	*Unnamed*	222001231			Cypress	RD	4	T5441	SUP	03-500-16	*WW*	159 Residential Condominiums. Saviers Road/Clara Street/Cypress
52	Faulconer & Carawan	805-648-2394	*Unnamed*	179023038			Gonzales	RD	3		DDR	03-200-8	*KM*	54 Apartment Units located on NEC of Gonzales and Victoria Ave,

City of Oxnard Planning & Environmental Services Residential Project List

ID	DEVELOPER	PHONE	*PROJECT*	APN	NUMBER	DIR	STREET	SUFFIX	STATUS	PERMIT	TYPE	PZ	*PLNR*	NOTES
53	Shea Homes	818-222-2530	*Cottages*	183028001			Patterson	RD	4		PD	03-540-4	*CW*	52 Detached Condos. 5 Acre Site Near S/E Corner of Wooley & Patterson
54	Comstock Homes	310-546-5781	*Meadowcrest Homes*	200009230	1111	N	Oxnard	BL	4	04-7432 & 05-1402	SUP	03-300-27	*JM*	50 Attached Condominium Dwelling Units.
55	Faulconer & Carawan	805-648-2394	*Casas de la Playa*	191010319			Wooley	RD	2		CDP	02-400-13	*CW*	9 SF Homes. Harbor & Wooley
56	Hector Cano	805-382-3229	*Unnamed*	201012607		E	Second	ST	3	04-866	ZV	02-590-1	*JM*	2-Story SF home
57	John Laing Homes	818-830-3360	*Pfeiler Subdivision*	215027604			Cesar Chavez	RD	4	5389	SUP	01-500-123, 124, 125	*SM*	232 SF Homes Plus Historic Homes, and Public Park PZ 01-500-123. PD, JM, ZC, GPA, ANNEX on 46 acres
58	Ybanez Residence	805-639-0185	*Unnamed*	191013244	1421		Marine	WY	4	03-1403	CDP	01-500-14	*LW*	1 SF Beachfront Home
59	American Housing	213-487-2400	*Sycamore Senior Village*	200029130	333	N	F	ST	4	03-4146	SUP	01-500-54	*CW*	229 Senior Housing units. Former St. John's Hospital
60	Faulconer & Carawan	805-648-2394	*Villa Cesar Chavez*	222008256	381	E	Hueneme	RD	4	03-3558-3568	PD	01-500-61	*LW*	52 Apartments, 6 Detached SF Units.
61	D. R. Horton	805-382-9244	*Seabridge*	188011050			Victoria	AV	4	T5266	CDP	01-500-93	*CW*	276 SF dwelling Units, 432 Multi-family Dwelling Units, 169,000 SGFT Commercial, 240 Public Docks, and a 16 Acre Park. Located on SWC Victoria Ave & Wooley Rd.
62	John Laing Homes	818-267-3700	*WhiteSails Westport*	188011049			Tradewinds	DR	4		CDP	99-5-61	*SM*	Mixed Use, 88 Condominiums and Retail.
63	Budge & Associates	310-456-5905	*None*	191004134	839		Mandalay Beach	RD	4	02-1072	CDP	01-5-101	*SM*	3-Story Single Family Coastal Home



Commercial Projects

0 0.5 1 2 3 4 Miles

Planning & Environmental Services

January 2006

City of Oxnard Planning & Environmental Services Commercial Project List

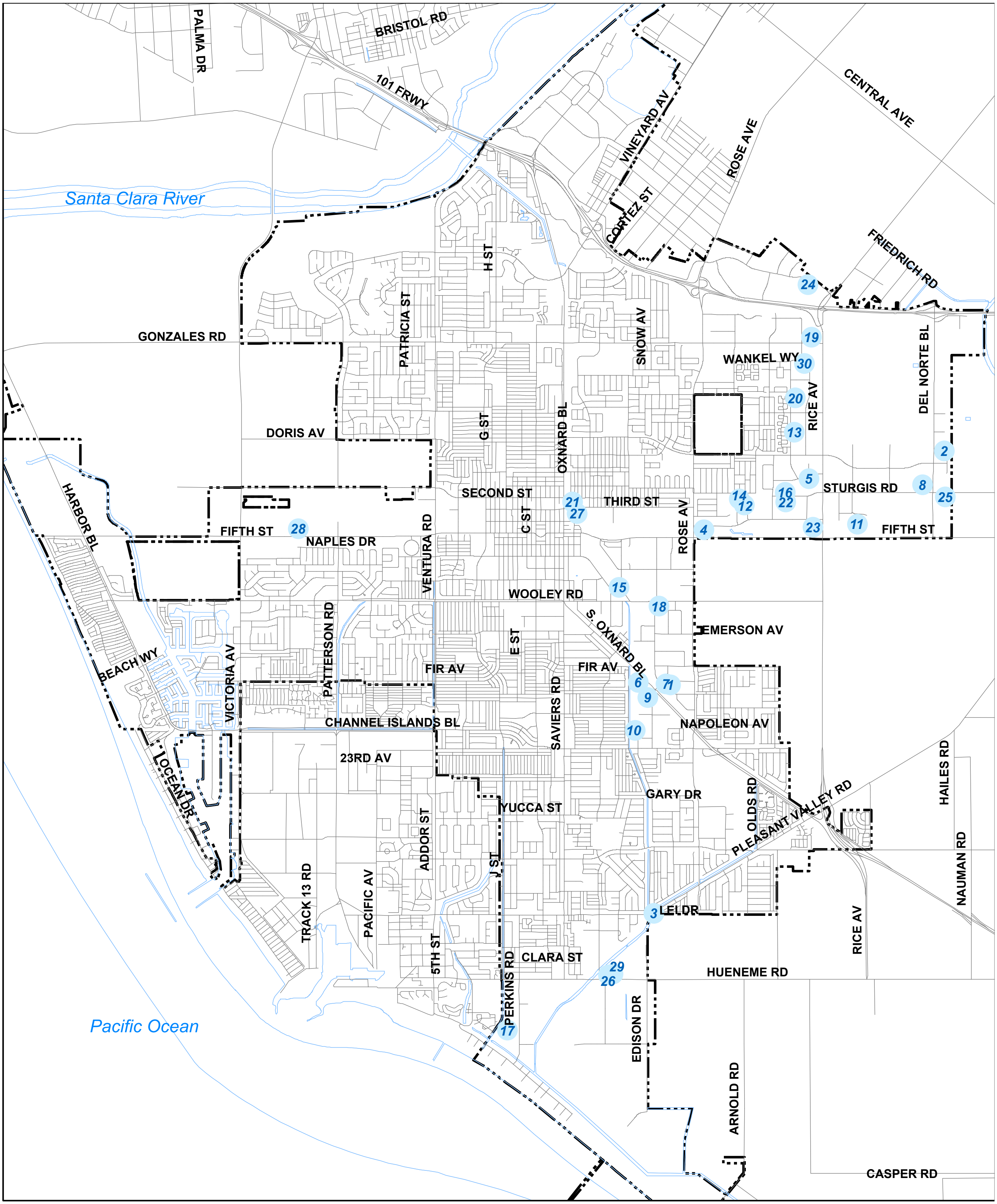
ID	DEVELOPER	PHONE	PROJECT	SQF	APN	Number	DIR	STREET	SUFFIX	STATUS	PERMIT	TYPE	PZ	PLNR	NOTES
1	Avion Development	619-243-2476	*Channel Islands Center*		142001034	2420	N	Oxnard	BI	1		PD	05-540-4	*AG*	Proposed 3 Towers Consisting of Residential Units & Mixed Use Commercial. 953 Residential Units on 8.67 Acres on the NW Corner of Oxnard Bl. & N. Vineyard Av.
2	Layman & Associates	818-995-8952	*Unnamed*	7420	219003215	3450	S	Sturgis	RD	1		DDR	05-200-7	*JR*	Retail Building
3	Lauterbach & Associates	805-988-0912	*DAL-Villa San Lorenzo*	1044	222010201	130	W	Pleasant Valley	RD	1		SUP	04-500-29	*JM*	Mixed use Commercial with 16 Residential Condominiums
4	John Laing	818-267-3700	*WhiteSails at Westport*	22000	188016007			Tradewinds	DR	4		CDP	99-5-61	*SM*	Retail
5	Cal-Asia Property Developement	310-312-6698	*Oxnard Boulevard & Saviers Shopping Center*	28211	204006023	1117	S	Oxnard	BL	1		SUP	06-500-1	*LW*	Drug Store, Drive thru fast Food & Retail. Also PAN 2040060230
6	D.R. Horton	805-382-9244	*Seabridge*	169000	188011050			Victoria	RD	4		CDP	01-500-93	*CW*	Mixed Use with SF Dwellings, Public Docks, Parks, and Multi-Family.
7	D.R. Horton	661-257-3399	*Rancho Victoria*	42400	185017005	3600	W	Fifth	ST	2		MJMD	05-550-2	*CW*	Mixed Use with Condominiums
8	Oxnard Plaza Associates	805-983-8674	*North Plaza*	7000	202010121			C	ST	1		SUP	05-500-25	*AG*	Located Between 4th & 5th Streets at C Street.
9	Irma Madrigal		*Paseo Azteca*	7000	202014512	618	S	A	ST	1		CBD	05-110-11	*AG*	Multi-tenant Retail Building with 10 Spaces.
10	Dragonfly LLC, Chris Kalla	805-751-1646	*Emerald Professional Bldg.*	8431	222001110	5577		Saviers	RD	1		SUP	05-500-10	*LW*	2-Story Commercial Building. Veterinarian & General Office NWC Saviers Rd & Hueneme Rd.
11	SDC-CT Properties	949-752-5115	*Carriage Square/ Lowe's*	181024	139025017	1901	N	Oxnard		1		SUP	05-500-2	*LW*	Demolish existing shopping center; build new retail, office & restaurants. 1950 N. "C" St, 341 W. Gonzales Rd., & 1911 N. Oxnard Blvd
12	Parviz Hariri	310-276-2777	*Pleasant Valley Plaza*	-	205014132	231	W	Pleasant Valley	RD	1		SUP	04-550-8	*LW*	Façade change & 3 new commercial bldgs.
13	Jim Thayer	949-831-8110	*Victory Outreach Church*	-	222010106	232	W	Pleasant Valley	RD	1		SUP	04-500-20	*LW*	Church in existing building
14	Brad Shockley	838-456-7212	*St. John's Medical Office Building*	65680	213003140	1600	N	Rose	AV	1		SUP	04-550-12	*CW*	3-story medical office building
15	Bea Molina	805-963-0986	*Ruby's Café*	8000	201016016	348/350	S	Oxnard	BL	4		SUP	04-500-28	*AG*	Nightclub, restaurant
16	Neal Subic & Associates	805-644-7340	*Subic Office renovation*	-	213003149	2103	E	Gonzales	RD	4			04-140-57	*WW*	Renovate an existing building. Includes Zone Change and Minor Mod.
17	Mark Pettit	805-988-0912	*Taco Bell Renovation*	-	200033403	1725	N	Oxnard	BL	2		SUP	04-550-13	*CW*	Demolition of existing restaurant and construction of a new one
18	PG Construction	805-240-9696	*unnamed*	3292	201012219	506		Cooper	RD	2		SUP	04-500-35	*LW*	Mixed-use, retail
19	Martin Teitelbaum	805-383-2221	*unnamed*	74000	132010005	2775	N	Ventura	RD	3	05-5477	SUP TSM	04-200-6	*JM*	9 new office buildings.
20	Heathcote & Assoc.	804-497-4700	*St. Paul's Baptist*	75000	220028205	1777		Statham	BL	4		SUP	04-500-10	*AG*	Church/Family Life Center. Emerson Ave./Pacific Ave. & Statham Blvd.
21	Meridian Office Partners	805-383-2221	*unnamed*	7,599 2,906 2,906 4,545	213009013	1900		Outlet Center	DR	4	04-5066	SUP	04-500-6	*AG*	4 new office buildings. Outlet Center Drive & Gonzales Road, 1900 Outlet Center Drive
22	Archdiocese of Los Angeles		*Lady of Guadalupe Church*	16800	201004107	500-530		Juanita	AV	2	N/A	SUP	04-540-2	*JM*	Construction of Church. General Plan Amendment & Zoning Change
23	Mutih Abduhai	818-843-1796	*unnamed*	5500	203006124	1111	S	C	ST	2		SUP	04-500-18	*JM*	Multi-tenant Commercial Center
24	David Kesterson-Lauterbauch & Assoc.	805-988-0912	*Salvation Army*	1700	203005031	622	W	Wooley	RD	3			MJMD TO U1509	*AG*	Add 1,700 SF of classroom and office
25	Lauterbach & Associates	805-988-0912	*Trinity Baptist Church*		216006107	450	N	Rose	AV	2		SUP	04-500-13	*CW*	400-seat church
26	Vincent & Murphy	415-543-1399	*Long John Silvers/A&W*	2800	205044308	3451		Saviers	RD	3		SUP	04-500-9	*CW*	Restaurant with drive-thru
27	Kevin Williams	818-879-4800	*Channel Pointe*	29600	220031061	2801	S	Rose	AV	4		SUP	04-500-15	*WW*	4 new commercial buildings
28	Vladimir Elmanovich	818-986-0400	*unnamed*	8000	220004404	2141	E	Channel Islands	BL	3	05-5735	PD	03-500-32	*JM*	Multi-tenant retail center on .66-acre site
29	Howard Shannon	805-967-5951	*unnamed*	12614	144012013	2400		Auto Center	DR	4	05-1472		03-550-11	*STAFF*	Adding 8 new buildings self storage

COMMERCIAL PROJECT STATUS: *1-PROPOSED 2-APPROVED 3-PLAN CHECK 4-UNDER CONSTRUCTION*

Revised: January 2006

City of Oxnard Planning & Environmental Services Commercial Project List

ID	DEVELOPER	PHONE	PROJECT	SQF	APN	Number	DIR	STREET	SUFFIX	STATUS	PERMIT	TYPE	PZ	PLNR	NOTES
30	Doug Off	805-988-0300	*Golden State Self Storage*	64709	144015008	2100		Auto Center	DR	2		DDR	03-200-9	*JM*	Add 11 new self storage bldgs to existing self storage facility
31	Neno Spondello	805-987-6921	*Centennial Plaza (PHASE II)*		202010439			A	ST	2		SUP	03-500-17	*AG*	4 New Retail Spaces
32	Charm Robb	805-637-7765	*Grand Stay Hotel*	38143	213009017	2211	E	Gonzales	RD	4		SUP	03-500-26	*CW*	57-unit hotel on 2.3-acres
33	City of Oxnard,Barbara Murray	805-385-7500	*South Oxnard Public Library*	27222	222016046	200	E	Bard	RD	4		SUP	03-500-26	*AG*	Public Library
34	J. Stuart Todd, Inc.	213-637-7818	*Santa Clara Cemetery*		139005014	2370	N	H	ST	4		SUP	02-500-23	*LW*	Cemetery expansion
35	Keith Speir	805-984-2353	*unnamed*	14282	183010025	2425	W	Fifth	SR	4	02-5643	SUP	02-500-28	*JM*	New Multi-tenant Commercial Building
36	Michael Penrod	805-373-8808	*Rose Ranch*	89199	215006112		E	Gonzales	RD	1		SUP	02-500-29	*AG*	SW Corner of Gonzales & Rose. Retail shopping center
37	Michael Sacco	805-983-6800	*Todey Lincoln Mercury*	9800	144013306	1601	E	Ventura	BL	2			04-500-10	*CW*	Expansion and new showroom
38	Isidro Durazo	805-983-0511	*unnamed*	993	202018301	801	S	Oxnard	BL	3		SUP	02-500-8	*SD*	Remodel building for auto sales
39	Duesenberg Investment	805-485-3193	*Financial Tower III*	309429	142002260	450	E	Esplanade	DR	2		SUP	15346	*KM*	15-story office building and parking garage
40	David Stillmunks	805-240-1300	*Jehovah's Witness Kingdom Hall*	5500	222026601	601	E	Bard	RD	3	03-206	MJMD	U1010	*SM*	Addition to existing church



Industrial Projects

0 0.5 1 2 3 4 Miles

Planning & Environmental Services

January 2006

City of Oxnard Planning & Environmental Services Industrial Project List

ID	DEVELOPER	PHONE	PROJECT	SQF	APN	NUMBER	DIR	NAME	SUFX	STAT	PERMIT	TYPE	PZ	PLNR	DESCRIPTION
1	Thom Kestley	805-378-7188	*Unnamed*	9,300	220027202	1610		Fiske	PL	1		SUP	05-500-13	*JR*	9,300 SQF Industrial Building.
2	Craig Lopez	805-484-4962	*John Hall*	2,993	216015501	831		Spectrum	CR	1			05-550-07	*JR*	Addition to Existing Building
3	City of Oxnard-Water Division	805-385-8136	*Blending Station No. 5*	238	224002005			Pleasant Valley	RD	2		SUP	04-500-34	*CW*	Blending Station.
4	Sunbelt Enterprises	805-604-0700	*Rose & Eastman*	33,000	216018311			Eastman	AV	2		DDR	05-200-6	*CW*	Industrial Building.
5	Sunbelt Enterprises	805-604-6700	*Seagate*	149,786	216020505			Rice	AV	1		DDR	05-200-5	*LW*	3 Office/Industrial Warehouse Buildings. 216020505, 216020506, 216020513
6	Vincent Dyer	818-882-1250	*Unnamed*	8,920	220006018			Sunkist	CR	1		SUP	05-500-17	*JM*	Industrial Spec Building
7	Lanet Shaw Architects	310-479-4775	*Unnamed*	29,797	220027201	1601		Ives	AV	1		SUP	05-500-16	*NG*	2 Industrial Buildings. Also 1635 Ives.
8	BLT Enterprises	805-278-8230	*Unnamed*	83,059	216015411	3301		Sturgis	RD	1		DDR	05-200-4	*NG*	2 Spec Industrial Buildings
9	Oxnard Industrial Partners	805-987-7654	*Unnamed*	18,000	220001036	2201		Statham	BL	1		SUP	05-500-19	*CW*	Convert Existing Building to 18 Live/Work Condos and Zoning Text Amendment
10	Raznick Group	818-884-7770	*Lion's Gate*	124,195	220022009	2751		Statham	BL	1		SUP	05-500-18	*NG*	Self-Storage & RV Storage
11	Trilliad Development-Valerie Draeger	805-379-9800	*Haas Automation*	211,150	216016045	2700		Challenger	PL	2		SUP	05-500-7	*KM*	Industrial Building
12	Martin Teitelbaum	805-383-2221x101	*Unnamed*	20,000	216019201			Cabot	PL	3	05-243	DDR	04-200-7	*KM*	7 Industrial Buildings Located on Cabot Pl., Hearst Dr., & Irving Dr.
13	Dick Searl	805-484-3714	*Unnamed*	87,451	214004106	710		Graves	AV	3	04-2122 & 04-2128	SUP	02-500-25	*JM*	2 Industrial Buildings. Also 720 Graves Av.
14	Cabot Lane, LLC	805-523-0253	*Unnamed*	24,118	216019110	2011		Cabot	PL	3	04-4741-4743	DDR	02-200-12	*JM*	3 Multi-Tenant Industrial Building. 2011-2031 Cabot
15	Seyed Azimi	805-486-8010	*Unnamed*		201020018	931		Richmond	AV	1		SUP	03-520-1	*JM*	Outdoor Vehicle Parking & Service Yard
16	Industrial Park Assoc.	805-983-2200	*Unnamed*	114,100	216020511	3000		Camino Del Sol	AV	2		SUP	03-200-11	*JM*	Industrial Building
17	City of Oxnard	805-385-3517	*Wastewater Headworks*	46,760	231009110	5751	S	Perkins	RD	4	03-7623	CDP	03-400-9	*LW*	Headworks for Waste Water Facility & Trunk Sewer Line. VARIOUS SITES
18	Channel Islands Equity	805-383-2221	*Wooley Phase II*	39,081	220029401	1401		Titan	PL	3	05-4067	SUP	03-500-21	*AG*	Two Industrial Buildings
19	Sunbelt Enterprises	805-604-0700	*Sunbelt Professional Center*	107,104	213005211			Solar	AV	3		SUP	04-500-32	*LW*	Two office buildings. N. of Gonzales Rd. between Rice Ave. & Solar Dr.
20	Industrial Park Assoc.	805-983-2200	*Unnamed*	34,560	214003207	1100		Graves	AV	4		SUP	03-500-25	*LW*	Industrial Building
21	Water Division	805-385-8139	*Desalter*	10,136 & 2,376	201011306	251	S	Hayes	AV	4		SUP	04-500-12	*CW*	New Desalter and Chemical Building
22	Elizabeth Callahan	805-385-7444	*Waterway Plastics*	136,456	216019402	2240		Sturgis	RD	4		DDR	04-200-10	*LW*	Addition to Industrial Facilities
23	Steven Olander	805-388-2724	*Cal Coast Machinery Phase II*	35,280	216019312			Rice	AV	1		DDR	04-200-11	*JR*	Multi-tenant Industrial Building. Corner of Eastman Ave. & Rice Ave. Also 21609312
24	Gibbs International	805-485-0551	*Gibbs Truck Service*	17,000	144015007			Auto Center	DR	4		DDR	04-200-04	*KM*	Industrial Building on 2.72 Acre-Site
25	Lauterbach & Associates	805-988-0912	*Associated Ready Mix*		216016004	3450		Sturgis	RD	1		SUP	04-500-22	*JM*	Industrial Building
26	Thom Kestly	805-378-7188	*Unnamed*	12,577	223004405	707		Hueneme	RD	4	04-6072	SUP	04-500-14	*AG*	Industrial Building
27	Water Division	805-385-8139	*South Water Yard*	16,955	201017028	250	E	Third	ST	4			04-500-12	*CW*	Add 3 New Walls and Facility Buildings
28	Mark Herman	805-985-0220	*Unnamed*	180,882	183009064	3291	W	Fifth	ST	3	05-233	SUP	04-500-8	NG	10 New Self-Storage Buildings

INDUSTRIAL PROJECT STATUS: *1-PROPOSED 2-APPROVED 3-PLAN CHECK 4-UNDER CONSTRUCTION*

Revised January 2006

Appendix D
Proposed Sakioka Farms Specific Plan

SAKIOKA FARMS

OXNARD, CALIFORNIA

SPECIFIC PLAN

05/01/09

LANGDON WILSON ARCHITECTURE PLANNING INTERIORS

SAKIOKA FARMS
BUSINESS PARK SPECIFIC PLAN
OXNARD, CALIFORNIA

ORDINANCE NO ____________

ADOPTED __________________

EFFECTIVE DATE _____________

SAKIOKA FARMS
BUSINESS PARK SPECIFIC PLAN
OXNARD, CALIFORNIA

Prepared for:
Sakioka Farms
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Prepared by:
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Irvine, California 92612-1517
Tel: 949.833.9193 Fax: 949.833.3098

Consultants:
RBF - Civil Engineers
LSA - Traffic Engineers
SLA Studio Land - Landscape Architect
TBD - Signage Consultant

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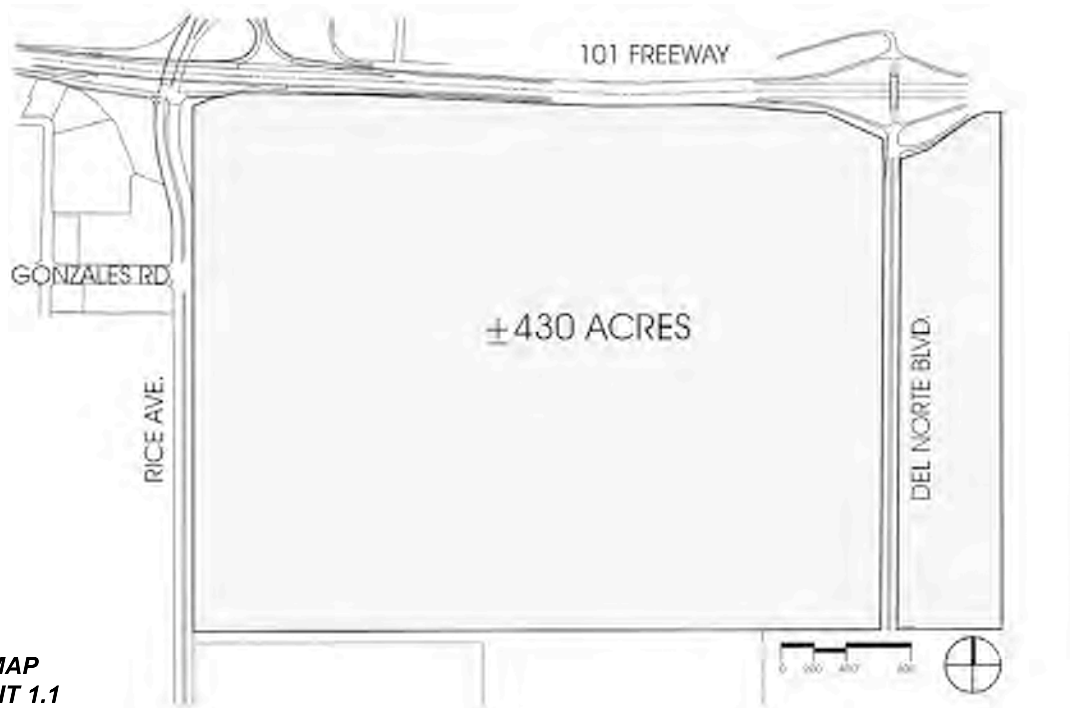
LIST OF EXHIBITS

LIST OF EXHIBITS

1

SECTION ONE



SITE MAP
EXHIBIT 1.1

1.0 PURPOSE AND INTENT

The Sakioka Farms Business Park Specific Plan establishes the planning concept, design theme, development regulations and administrative procedures necessary to achieve an orderly and compatible development of the project area; and to implement the goals, policies, and objectives of the Oxnard 2020 General Plan. The intent is to provide the framework and guidelines for a well planned phased business park development and achieve a high level of quality design.

The Sakioka Farms Business Park Specific Plan identifies the location, character and intensities of the planned development activities. The Specific Plan establishes the alignment and design of a circulation system, and all public facilities and infrastructure necessary to implement a master planned development over time. The Specific Plan creates a compatible design theme for the project area and defines the appropriate development regulations to accomplish the identified objectives.

The Specific Plan is regulatory in nature and serves as zoning for the Sakioka Farms Business Park area. Subsequent development plans, subdivisions and other entitlement requests for the project area must be consistent with both the Specific Plan and the Oxnard General Plan. An Environmental Impact Report, with identified mitigation measures, will be prepared as a companion report to the Specific Plan.

1.1 AUTHORITY AND PROCEDURE

California State law authorizes cities with complete General Plans to prepare and adopt Specific Plans (Government Code Sections 65450 et. seq.). Specific Plans are intended to be a bridge between the local General Plan and individual development proposals. Specific Plans contain both planning policies and regulations, and may combine zoning regulations, capital improvement programs, development standards and other regulatory methods into one document which can be tailored to meet the needs of a specific area.

Local planning agencies or their legislative bodies may designate areas within their jurisdiction as ones for which a Specific Plan is "necessary or convenient" (Government Code Section 65451). A Specific Plan may either be adopted by ordinance or resolution (Government Code Section 65507). Adoption by ordinance is common when the Specific Plan amends a development code, zoning ordinance, or other code, when specific regulatory measures are included and when local charters require adoption by ordinance. Resolutions are commonly used when the plan is more of a policy document. Should the legislative body wish to change a proposed Specific Plan recommended by the Planing Commission, the change must first be referred back to the Commission for consideration, if not previously considered (Government Code Section 65504).

Adoption or amendment of a Specific Plan constitutes a project under the California Environmental Quality Act (CEQA) and the State's Environmental Impact Report (EIR) guidelines. If the initial environmental review shows that the proposed or amended plan could significantly affect the environment, the jurisdiction must prepare an EIR and submit it in draft form for public review. The need for an EIR in a particular case is determined by the local government.

The preparation, adoption and implementation of the Sakioka Farms Business Park Specific Plan by the City of Oxnard is authorized by the California Government Code, Title 7, Division 1, Chapter 3, Article 8, Section 65450 through 65457.

The City of Oxnard 2020 General Plan was adopted by the City Council in November 1990. The General Plan designates the project area for industrial activities with a mixed-use overlay. The Sakioka Farms Business Park Specific Plan is consistent with the goals and policies of the Oxnard General Plan. While the City is currently in the process of conducting a General Plan update, there are no anticipated inconsistencies with the planning concepts outlined in the Specific Plan.

1.2 SCOPE AND FORMAT

The Sakioka Farms Business Park Specific Plan is divided into six sequential sections.

Section One is the Introduction and describes the purpose and intent of the document along with a brief explanation of Specific Plan procedures and authorization.

Section Two is the Project Area Description and outlines the reasons why the Specific Plan process is logical and necessary for this portion of the City. This section presents a general description of the Specific Plan area including designated land uses, existing zoning and current activities.

Section Three is Implementation and discusses the process by which individual projects will be reviewed and approved. This section outlines the division of land and project entitlement procedures. This section also describes the methods by which the Specific Plan can be modified or amended.

Section Four describes the Master Plan Concept. The Master Plan evolves from the objectives outlined in Section One and the existing conditions discussed in Section Two, along with input from numerous meetings and special studies conducted by the property owner and the City. This section presents the development options proposed for various sites and the circulation, public facilities, infrastructure and landscaping which will support the Master Plan concept and reinforce the design theme. In addition, a Phasing Plan has been prepared as part of this section.

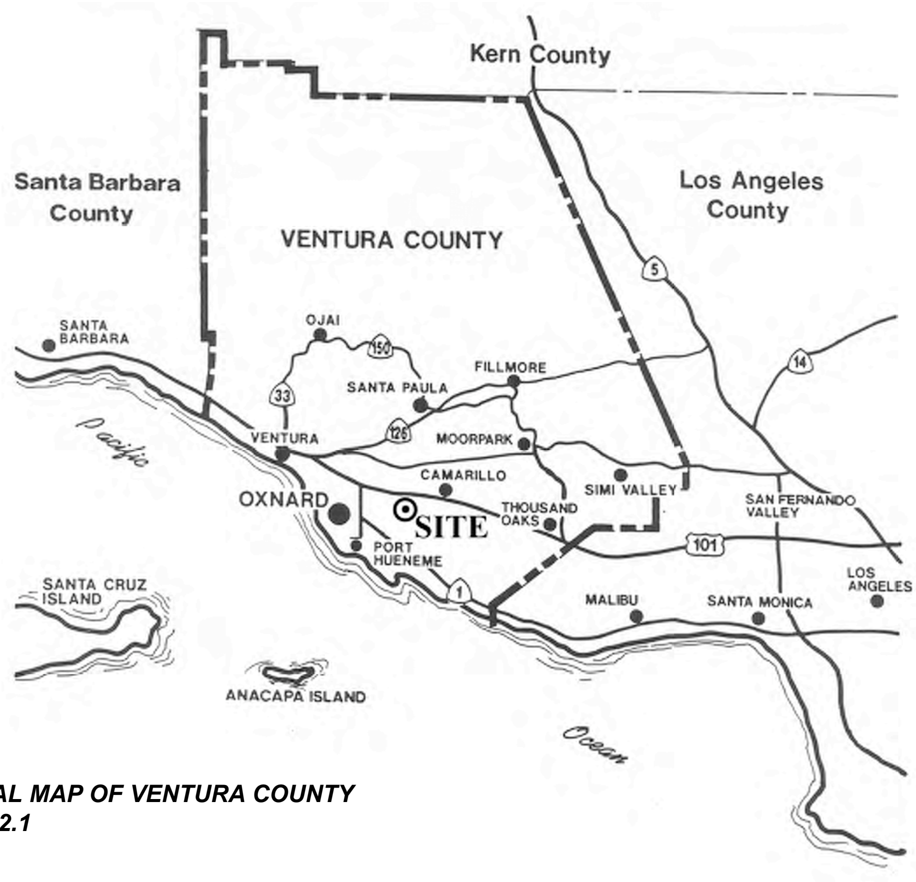
Section Five establishes Design Guidelines for the entire project area and for individual project development. This section identifies and describes the intended character for the area and provides a framework for project implementation.

Section Six presents a detailed description of the Development Regulations which are necessary to guide and control new projects and carry out the goals and policies of the Specific Plan and the City's General Plan.

An **Appendix** will be compiled that will contain special studies and reports which have contributed to the formation of the Specific Plan. The Appendix will also include the Legal Description of the site, a General Plan Consistency Analysis and any Mitigation Measures identified in the Environmental Impact Report.

2

SECTION TWO

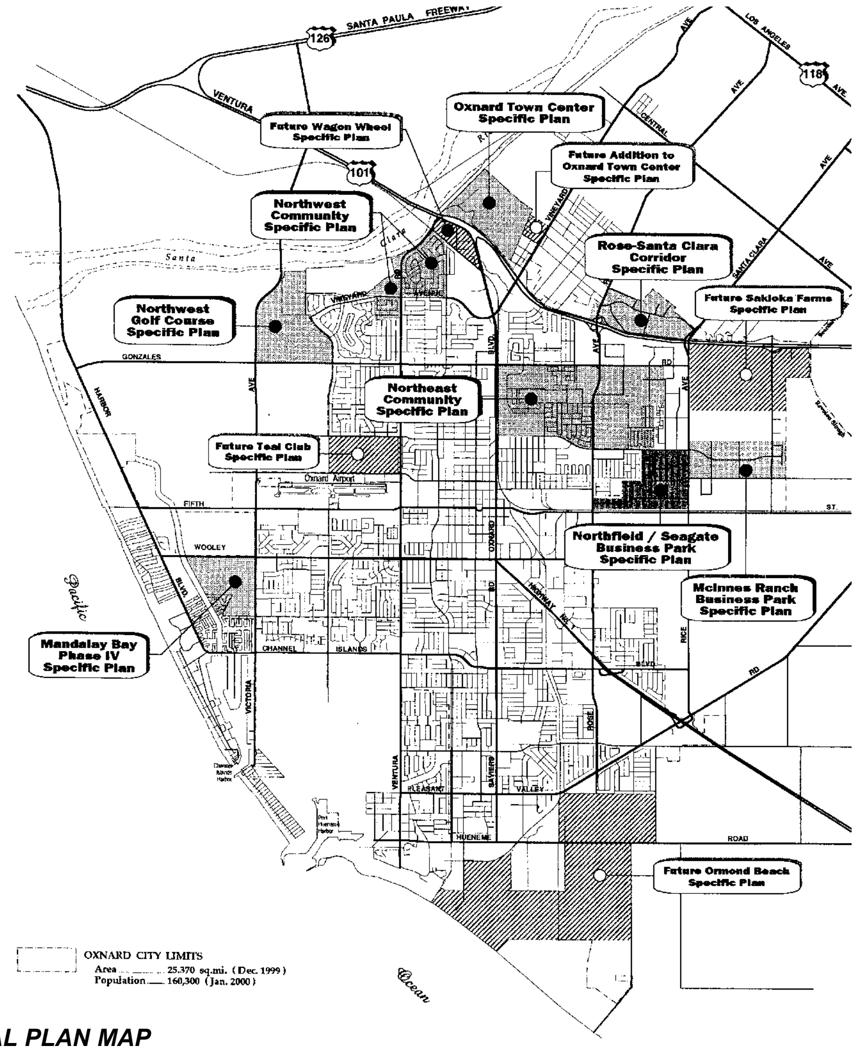


REGIONAL MAP OF VENTURA COUNTY
EXHIBIT 2.1

2.0 LOCATION

The City of Oxnard, California is located midway between Santa Barbara and Los Angeles, in the southern portion of Ventura County on a coastal plain of alluvial deposits, fronting the Pacific Ocean. The mild year-round temperature, clear air and open spaces provide the nearly 183,000 residents with a relaxed seaside atmosphere and active business community environment. The City's economic base is very healthy, as demonstrated by a strong growth rate and a rapidly developing industrial community.

The Sakioka Farms site covers approximately 430 acres located in the northeastern portion of the City of Oxnard. The site is bounded on the north by the Ventura Freeway (U.S. Route 101); on the east by the Oxnard-Camarillo Greenbelt (agricultural preserve); on the south by the existing Procter & Gamble plant and portions of the McInnes Ranch Business Park, and on the west by Rice Avenue. A legal description of properties in the Specific Plan project area is included in the Appendix.



CITY GENERAL PLAN MAP
EXHIBIT 2.2

2.1 GENERAL PLAN DESIGNATION

In 1990, the City adopted the 2020 General Plan. The General Plan was carefully formulated over several years to reflect the City's vision to enhance the quality of life and build a strong financial base for the future. The General Plan was developed to assure the residents that the quality of services, public facilities and amenities, state of the economy, living environment and overall City image will remain strong. The General Plan is intended to guide each development project to assure that they contribute to the City's desires and become a source of pride for the community.

The General Plan sets in motion a logical sequence of specific actions to implement identified goals, policies and programs. One implementation measure calls for the preparation of Specific Plans for designated areas. The Sakioka Farms site has been identified as one of the select locations.

GENERAL PLAN LAND USES
EXHIBIT 2.3

The Sakioka Farms site is primarily surrounded by existing industrial/industrial-related uses and is designated for future Business and Research Park and Light Industrial use; an easterly extension of Gonzales Road divides the two designations in the City's General Plan.

The Sakioka site consists of approximately 430 acres of land, 300 acres are designated for Light Industrial activities and 130 acres for Business Research Park, all under a single ownership. Adjacent to the northeastern corner of the Sakioka Farms property is a forty-eight (48) acre area, owned by others, which has been identified in the General Plan as part of the Specific Plan area. This adjacent property is designated for Business Research Park (BRP) uses and is partially developed in that fashion, however, the area is primarily in agricultural production. The Specific Plan, along with the current zoning should serve as guidelines for the ultimate development of the area. Potential development intensities, impacts and improvements, along with related costs, for this adjacent area have not been identified in the Specific Plan. This property is not considered part of the area regulated by the Specific Plan at this time.

The overall development intensity for the project area has been established in the General Plan. A total of 8,500,000 square feet of overall development activities is anticipated; 5,500,000 square feet of industrial uses and 3,000,000 square feet of business and research uses.

The Light Industrial designation will accommodate a range of general manufacturing and related service uses. In addition to traditional industrial uses, the area may develop industrial service centers; this concept recognizes that there may be a need for commercial services within industrial areas. The intent of providing commercial services is to meet the daily needs of employees within the industrial areas during their journey to and from work, while on breaks, and during lunch periods.

The Business and Research Park designation provides for a variety of business and employment opportunities such as professional, administrative, research and manufacturing uses along with limited commercial activities. This destination allows for a higher intensity of land use activities, relative to the overall project area.

The General Plan also provides an opportunity for the introduction of residential uses for select areas. A "Mixed-Use Overlay" option is designed for the Sakioka property. A Mixed-Use project is defined as combining three or more different land uses. This concept will allow individuals to live near their place of employment; and provide the City with an additional opportunity to achieve a better jobs to housing balance in the community.

The Specific Plan, as presented with industrial, office and support commercial uses, along with the ability to propose residential uses at a later date, is intended to be consistent with the City's adopted General Plan.

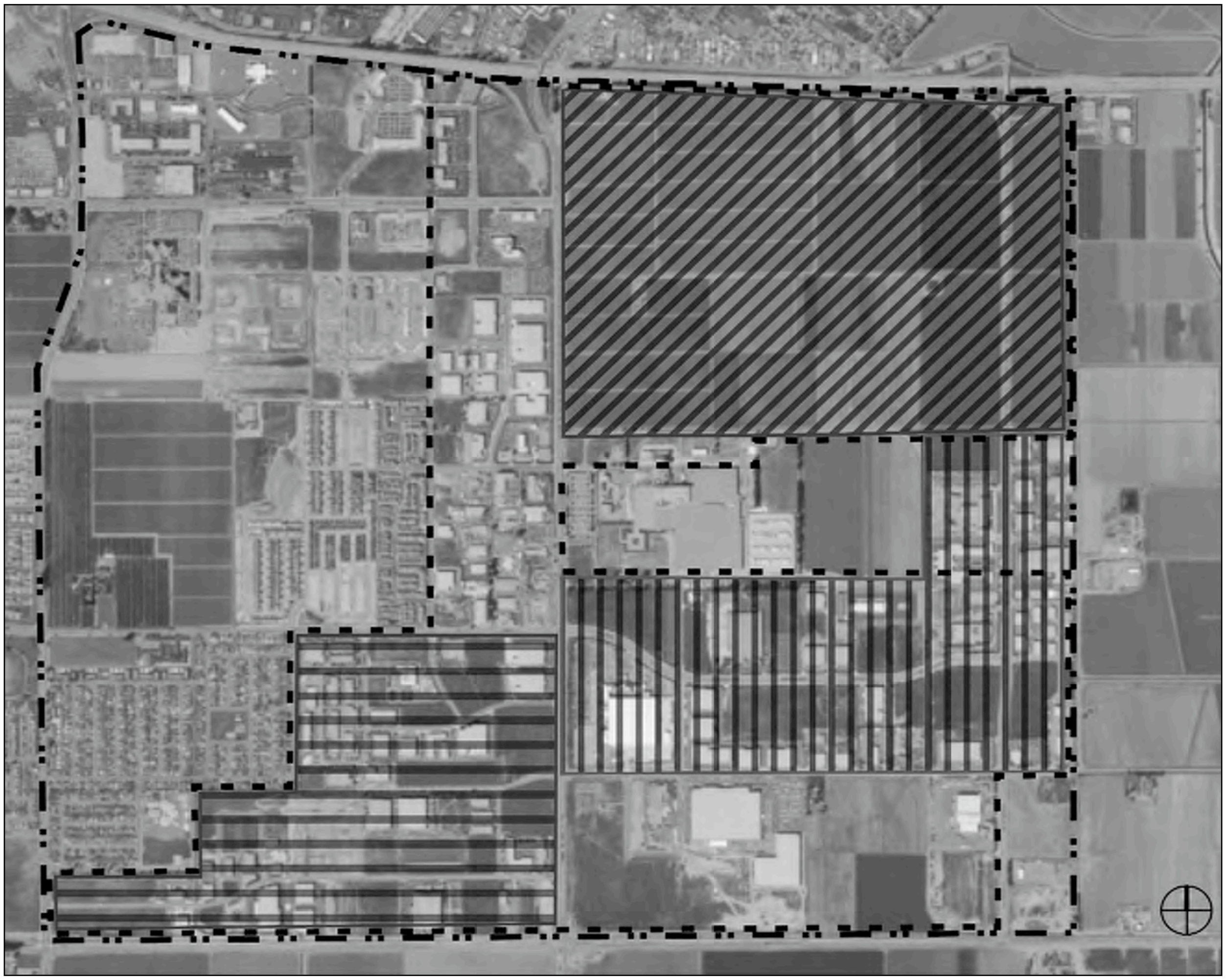
2.2 ZONING REGULATIONS

The Sakioka Farms site is presently zoned Business Research Park (BRP) and Light Industrial (M-1); 130 acres and 300 acres respectively. The Specific Plan will supersede the existing zoning and establish a new set of development regulations. These regulations have been prepared consistent with the City's adopted guidelines and regulations, and tailored for this specific site.

2.3 CURRENT LAND USES

The Sakioka Farms site consists of 430 acres of agricultural activities. There are no existing developments, the entire site is vacant, with the exception of a few farming related structures. No subdivision of the project area land has occurred. Although the City's General Plan contains policies to preserve agricultural lands it also recognizes the role these areas will play to enable Oxnard to achieve a better balance of community activities. New private developments have occurred over time on sites surrounding the project area, replacing the agricultural operations of the past.

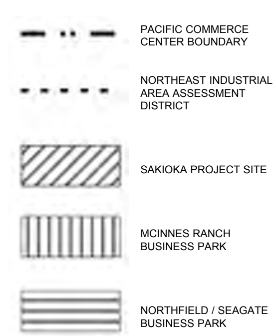
THE NORTHEAST INDUSTRIAL AREA MAP
EXHIBIT 2.4



THE NORTHEAST INDUSTRIAL AREA

- 1,389 total acres
- 806 acres light industrial (zoned – M.1)
- 300 acres limited industrial (zoned – M.L.(245 ac.) and zoned – BRP (45 ac.)
- 280 acres business and research park (zoned – BRP)
- Anticipated Total Development:
  18.2 million sq. ft. of industrial uses
- 6.2 million sq. ft. of business & research uses

LEGEND



The project area is surrounded by development which is regulated by the other Specific Plans, the Northfield/Seagate Business Park Specific Plan and the McInnes Ranch Business Park Specific Plan.

The Northfield/Seagate Business Park Specific Plan (252 acres) is an industrial development; meeting adopted standards of site design, circulation, intensity of use and community character.

The McInnes Ranch Business Park Specific Plan (236 acres) provides a comprehensive set of plans, regulations, conditions, and programs for guiding the orderly development of a coordinated industrial / business park. Uses include a variety of manufacturing, research and development, professional and limited commercial uses integrated by planned vehicular circulation, landscaping, pedestrian walkways, and leisure spaces.

2.4 PLANNING HISTORY

During the late 1980's, the City embarked upon a planning program, which encouraged the preparation of numerous area plans, assessment districts, master plans and specific plans to provide guidelines for the orderly development of large project areas. The Sakioka Farms site is within one of these planning study areas, The Northeast Industrial Area Plan.

The Northeast Industrial Area consists of approximately 1,400 acres of property designated for Limited Industrial, Light Industrial and Business and Research Park uses. Originally part of a larger area referred to as the Pacific Commerce Center, the N.I.A.D. properties are forecasted to be developed over a 25-year period beginning in 1985.

An Assessment District has been formed which provides for the major infrastructure improvements necessary to serve this area. In addition, the project area has been part of many formal agreements and studies directed by the City (i.e. the Xerox Annexation Agreement of 1969 and the Participation Agreement for inclusion in the Northeast Industrial Area Assessment District, 1986). The Northeast Industrial Area is one of four major industrial areas in the City that has been approved for development.

Large development projects within the Northeast Industrial Area are required to prepare Specific Plans to guide future development. The City currently has eight active Specific Plans, two of which are within the Northeast Industrial Area. Along with the required Specific Plan, Sakioka Farms intends to enter into a Development Agreement with the City.

2.5 STATE MANDATED REQUIREMENTS

To comply with the State of California legislated mandates, the City of Oxnard has adopted several plans to deal with regional issues including Air Quality, Congestion Management, Growth Management, Regional Housing and Transportation Demand Management Plans.

3

SECTION THREE

3.0 ADMINISTRATION

The City's Planning Manager shall administer the provisions of the Sakioka Farms Business Park Specific Plan in accordance with the State of California Government Code, Subdivision Map Act, the City of Oxnard Municipal Code, and the City's General Plan.

The Specific Plan development procedures, regulations, standards and specifications shall supersede the relevant provisions of the City's Zoning Code, as they currently exist or may be amended in the future. The Specific Plan shall be adopted by ordinance. Any development regulation and building requirement not addressed in the Specific Plan shall be subject to the City's adopted regulations in place at the time of an individual request.

The Planning Manager shall have the discretion to determine if requests for modifications to the Specific Plan are minor or major. Minor modifications or amendments may be accomplished administratively by the Planning Manager. Major amendments to the Specific Plan will require the processing of a Specific Plan Amendment, subject to the City's processing regulations in place at the time of the request. Minor modifications to the Specific Plan include, but are not limited to:

- The addition of information to the exhibits or text which serve to clarify, but do not change the meaning or intent.
- Changes to the infrastructure (i.e., storm drain, water and sewer systems), as recommended by the City's Director of Public Works.
- The adjustment, addition and/or lot consolidation as addressed in this section of the Specific Plan.
- Modifications to the alignment of the Planning Area boundaries to coincide with specific development plans, as recommended by the City's Planning Manager.

All modifications must be reviewed for compliance with the goals and policies of the City's General Plan, intent of the Sakioka Farms Business Park Specific Plan and consistency with the Environmental Impact Report.

3.1 DEVELOPMENT PHASING

The Sakioka Farms Business Park Specific Plan area is designed for maximum flexibility and anticipates that individual development projects will be constructed over a period of years; with no specific target date for completion. Development starts and occupancy will be dictated by market forces and phased accordingly.

A development Phasing Plan has been prepared identifying a program of the relative timing of development within each of the Planning Areas. The Phasing Plan provides a guideline for the construction of community infrastructure and public improvements to adequately service new projects within the Specific Plan area.

3.2 METHODS AND PROCEDURES

The methods and procedures for implementation of the Specific Plan shall be on a project by project basis. The adoption of the Specific Plan alone will not require infrastructure improvements to the project area. Physical improvements will only coincide with the recordation of a Tract Map or Parcel Map and/or individual project development. The Specific Plan is a regulatory document and is not intended to be a Development Agreement.

3.3 MASTER PLAN

A Master Plan Concept for the project area identifying primary and alternative land uses, circulation system, infrastructure layout, public facilities and landscape scheme has been included within the Specific Plan. All proposed development projects shall be consistent with the intent of the Master Plan .

3.4 SUBDIVISION

The project area will be subdivided through a series of Tract and Parcel Maps. All Maps shall be prepared consistent with the Master Plan and in conformance with the City's adopted procedures and codes.

3.5 PROJECT PLAN REVIEW

Individual development projects within the Sakioka Farms Business Park Specific Plan area shall be implemented through a Development Design Review (DDR) permit approved by the Planning Manager.

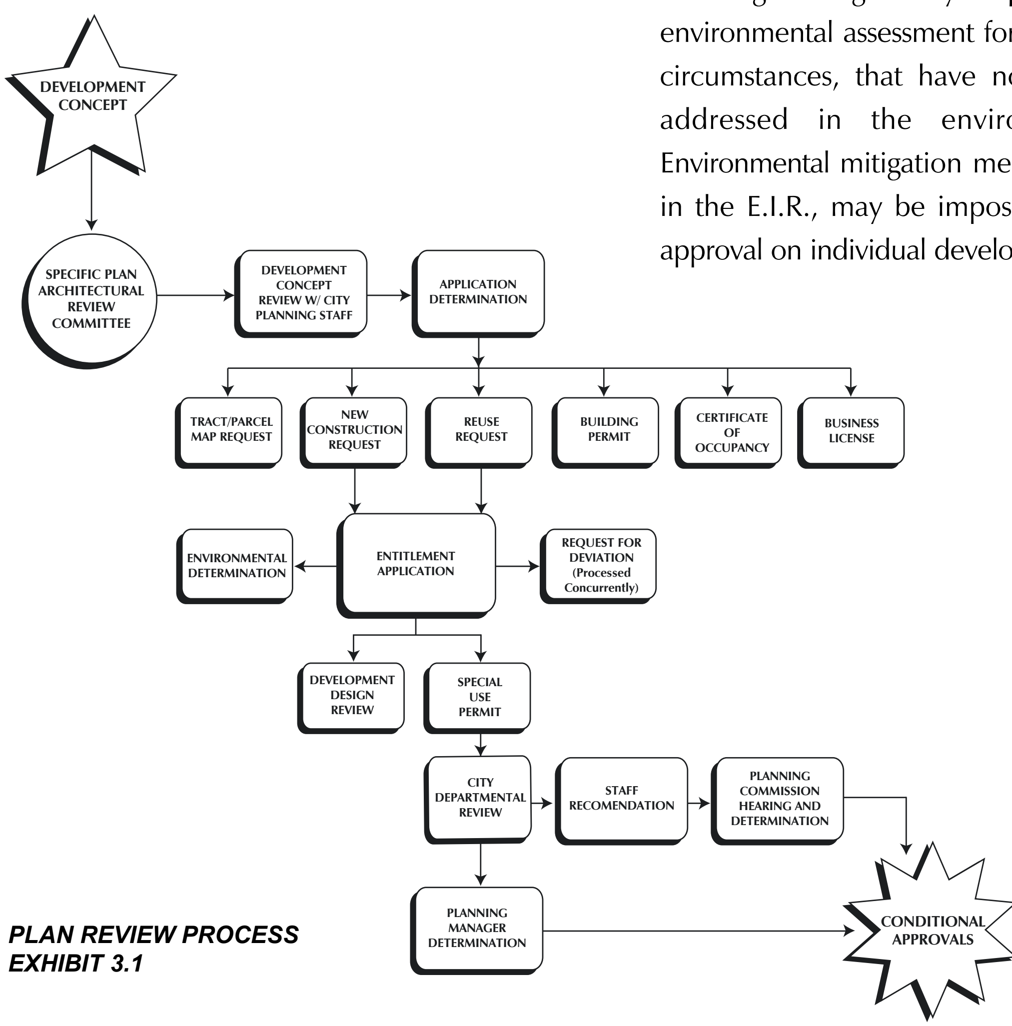
Prior to submitting the DDR application to the City, all proposed development projects shall be submitted to the project area's Architectural Review Committee. A special committee shall be established by the property owner for review of all proposed new and expanded developments to determine consistency with the established guidelines and intent of the Specific Plan. Following review and approval by the Architectural Review Committee, the project request may be submitted to the City for DDR review and permitting.

A Development Design Review shall be required for all new development activity. Exceptions to this provision include interior improvements, general maintenance and repair or other minor construction activities that do not result in an intensification of the use. These exceptions may be subject to other Planning, Building and Public Works permits and approvals prior to commencement.

The Planning Manager has the authority to approve, conditionally approve, or deny a Development Design Review Permit. The application may also require analysis and comments from various other departments of the City. Applicants have the right of appeal through the normal City process.

3.6 REUSE / CHANGE OF USE REVIEW

Any proposal to reuse and/or change the use of a previously approved and constructed development, within the project area, will be subject to additional review by the Development Services Department. In addition, any proposed physical modifications to the existing structure and/or site shall be subject to additional review and approval of the Planning Manager prior to the issuance of building permits.



PLAN REVIEW PROCESS
EXHIBIT 3.1

3.7 ENVIRONMENTAL DETERMINATION

The extent and intensity of all anticipated development activity for the Sakioka Farms Business Park area have been identified in the Specific Plan and analyzed in the Environmental Impact Report.

Development project requests consistent with the Specific Plan shall not be subject to additional environmental review unless otherwise required by C.E.Q.A. However, the Planning Manager may request an additional environmental assessment for unique or unusual circumstances, that have not been previously addressed in the environmental review. Environmental mitigation measures, as specified in the E.I.R., may be imposed as conditions of approval on individual development projects.

3.8 REQUEST FOR MODIFICATION

The Sakioka Farms Business Park Specific Plan Development Regulations are intended to encourage projects which create an aesthetically pleasing appearance, enhance the environment, and facilitate innovative quality architectural design.

Requests for Modification from the Development Regulations of the Specific Plan, which have been approved by the project's Architectural Review Committee, may be granted at the time of the Special Use Permit or Development Design Review request, for special circumstances and/or unique architectural features. Requests for Modification may include but are not limited to parcel size, building height, site coverage, setbacks, open space, parking, and landscaping.

All Modification requests will be considered by the Planning Manager. Modification to the Master Plan Concept may require a Specific Plan Amendment, subject to the procedures outlined in the City's Zoning and Subdivision Ordinance.

Requests for Modification may be allowed when significantly greater benefits from the project can be provided than would occur if all the minimum requirements were met. Additional benefits which may make a project eligible for consideration include greater open space, greater setbacks, unique or innovative designs, public open space, and the use of energy conservation or innovative technology.

The Planning Manager may approve the Request for Modification in whole or in part upon making the following findings:

- To promote better design, environmental and land planning techniques and contribute to the economic viability of the community, through aesthetically pleasing architecture, landscaping and site layout; and
- Will not be detrimental to the general health, welfare, safety and convenience of the neighborhood or City in general, nor detrimental or injurious to the value of property or improvements of the neighborhood or of the City in general; and
- To be consistent with objectives of the Specific Plan in achieving a project adapted to the area and compatible with the surrounding environment; and
- To be consistent with the goals and policies of the City's General Plan, and comply with State and Federal Law.

3.9 MINOR EXPANSIONS

Minor Expansions of use shall be considered up to ten (10) percent of an existing structure for a legally established use, and that the use of operation after expansion or modification is in compliance with the Specific Plan. Minor expansions may be permitted and require a Request for Modification and they are subject to review and approval by the Planning Manager.

3.10 SPECIFIC PLAN AMENDMENTS

Specific Plan Amendments, other than a minor modification as previously described, shall be subject to consideration and approval of the Planning Commission and City Council in accordance with the provisions of the City's Zoning and Subdivision Ordinance. Amendments may include changes to the Master Plan Concept, Design Guidelines policies and the introduction of alternative Development Regulations.

3.11 CERTIFICATE OF OCCUPANCY

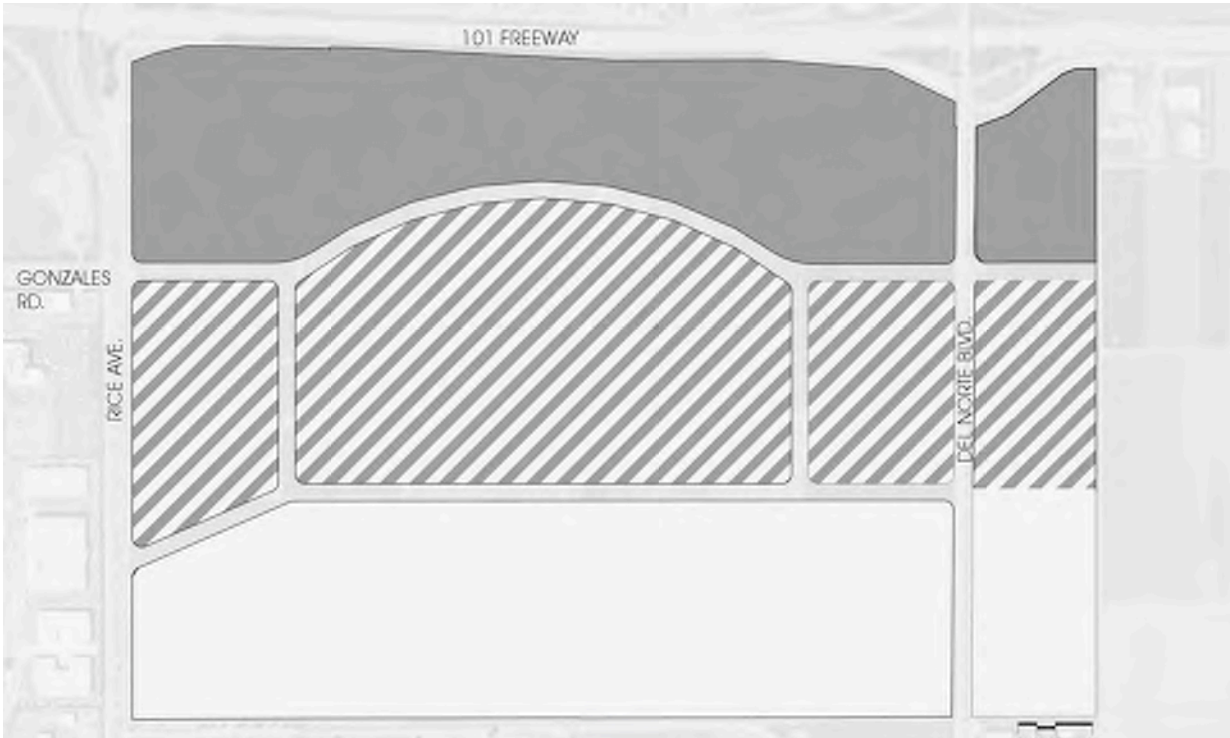
Application for a Certificate of Occupancy shall be made for any new use, or expansion of any permitted use. The Building Department may issue the Certificate only after approval of the new buildings and uses by the Planning Department. Any subsequent modification, change or changes in the use permitted by a Certificate of Occupancy shall occur only after the holder of such certificate has obtained an amendment from the Building and Planning Departments allowing such change or changes. A Certificate of Occupancy may be revoked by the City Council, after a public hearing, if the Council finds that the holder of the Certificate has failed to comply with the conditions of approval.

3.12 SEVERABILITY

If any section, subsection, sentence, clause, phrase, or portion of this Specific Plan, or any future amendments or additions hereto, is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Specific Plan, or any future amendments or additions hereto. The City hereby declares that it would have adopted these titles and each sentence, subsection, clause, phrase, or portion or any future amendments or additions thereto, irrespective of the fact that any one or more sections, subsections, clauses, phrases, portions or any future amendments or additions thereto may be declared invalid or unconstitutional.

4

SECTION FOUR



	NET ACRES	F.A.R.	APPROX. SQ. FT. (MIL)		
			BRP	LT. IND	TOTAL
BUSINESS RESEARCH	94	0.5	1.4	-	1.4
BUSINESS RESEARCH/LIGHT INDUSTRIAL	160	0.5	1.6	2.4	4.0
LIGHT INDUSTRIAL	134	0.5	-	3.1	3.1
	388 *		3.0	5.5	8.5

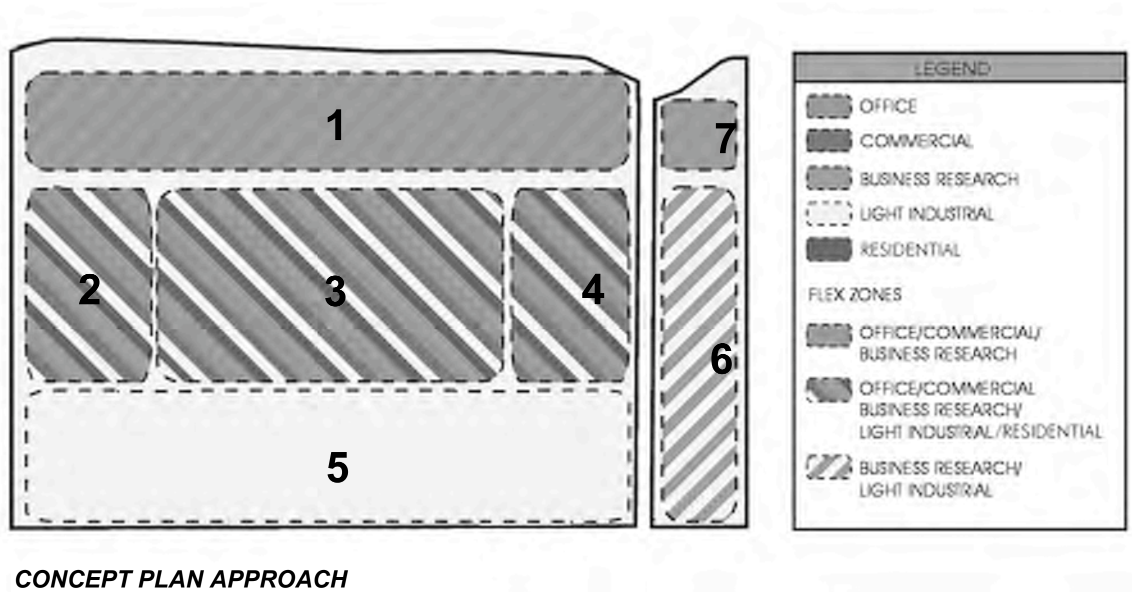
*Estimated total net developable area

FLEX LAND USE PLAN
EXHIBIT 4.1

4.0 DEVELOPMENT CONCEPT

The Sakioka Farms Business Park Specific Plan development concept provides for a large master planned industrial/business park complex. The Specific Plan establishes the general type, location, parameters and character of all development within the sites boundaries, while allowing for creative design ideas on individual projects consistent with an overall concept.

In order to achieve flexibility in future project development and maintain consistency with the General Plan, a flexible land use plan has been prepared. The plan has its roots in the land use designations of the General Plan, and incorporates a recognition that ultimate development will likely be a blend of both traditional light industrial, business research facilities and residential.



CONCEPT PLAN APPROACH
EXHIBIT 4.2

The development concept establishes the vision for the Specific Plan, and is designed to allow for development in a manner that is both flexible and compatible with the surrounding neighborhood. The development concept approach recognizes that the area will be incrementally developed in phases over an extended period of time and provide an opportunity for a variety of quality uses.

In order to provide for this flexibility and be able to propose a quantifiable plan for analysis, five primary uses have been identified. Each category of use has been limited to select portions of the Specific Plan area, with a maximum intensity of development identified. This will allow for the proper analysis of potential development impacts over an extended period of time. The flexibility is obtained through the identified overlapping of uses in the concept plans. Within the limits of total intensity, Flex Zones allow a use or activity the opportunity of being developed at a number of potential locations in response to market and development trends of the future.

The sites natural features and proximity to regional transportation systems make the area ideal for a variety of compatible business land uses and activities. The development concept is designed to address the area's surrounding industrial activities and the community need for a strong self-sufficient economy.

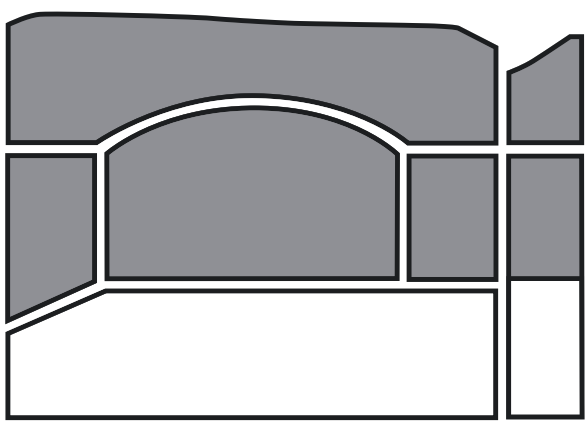
The Specific Plan will provide for a range of employment opportunities in the professional, retail, service and industrial fields; and will widen the employment base of the community. Residential uses are proposed as contemplated by the "Mixed Use Overlay" Program described in the General Plan. Residential opportunities will assist the City in maintaining an adequate jobs/housing balance consistent with the area's regional goals and objectives.

LAND USE SUMMARY
EXHIBIT 4.3

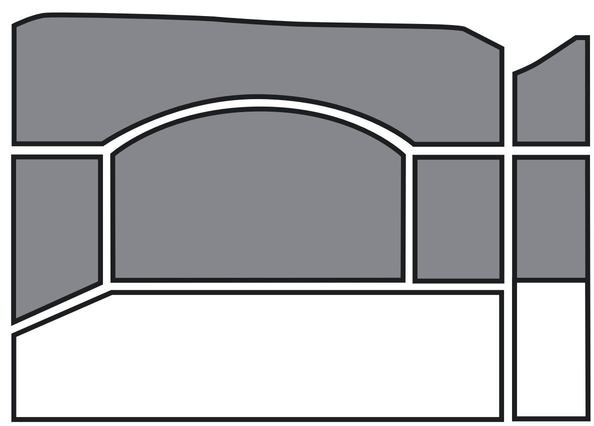
BUSINESS/ RESEARCH		OFFICE		INDUSTRIAL		COMMERCIAL		TOTAL	
SQ. FT.	AC	SQ. FT.	AC	SQ. FT.	AC	SQ. FT.	AC	SQ. FT.	AC
2.5 million	254	0.4 million	254	5.5 million	294	0.1 million	171	8.5 million	388*

*Estimated total net developable area

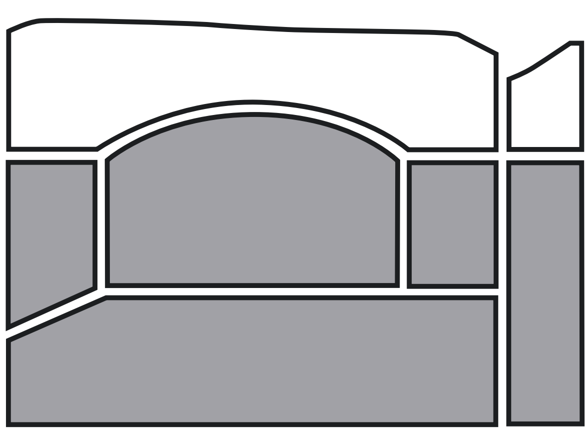
LAND USE AREA MAPS
EXHIBIT 4.4



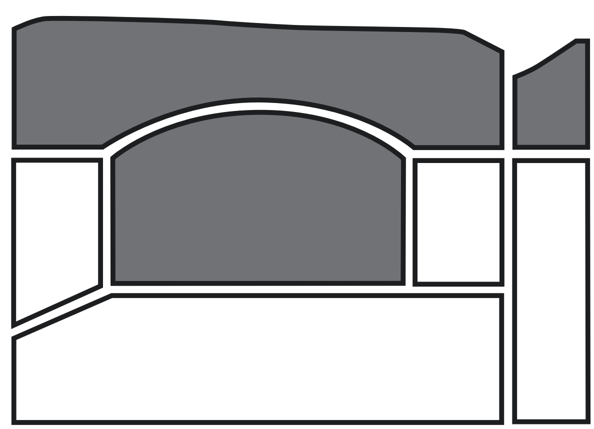
BUSINESS RESEARCH



OFFICE



INDUSTRIAL

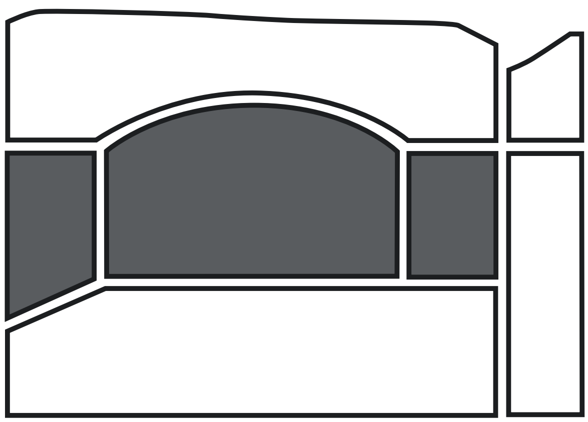


COMMERCIAL

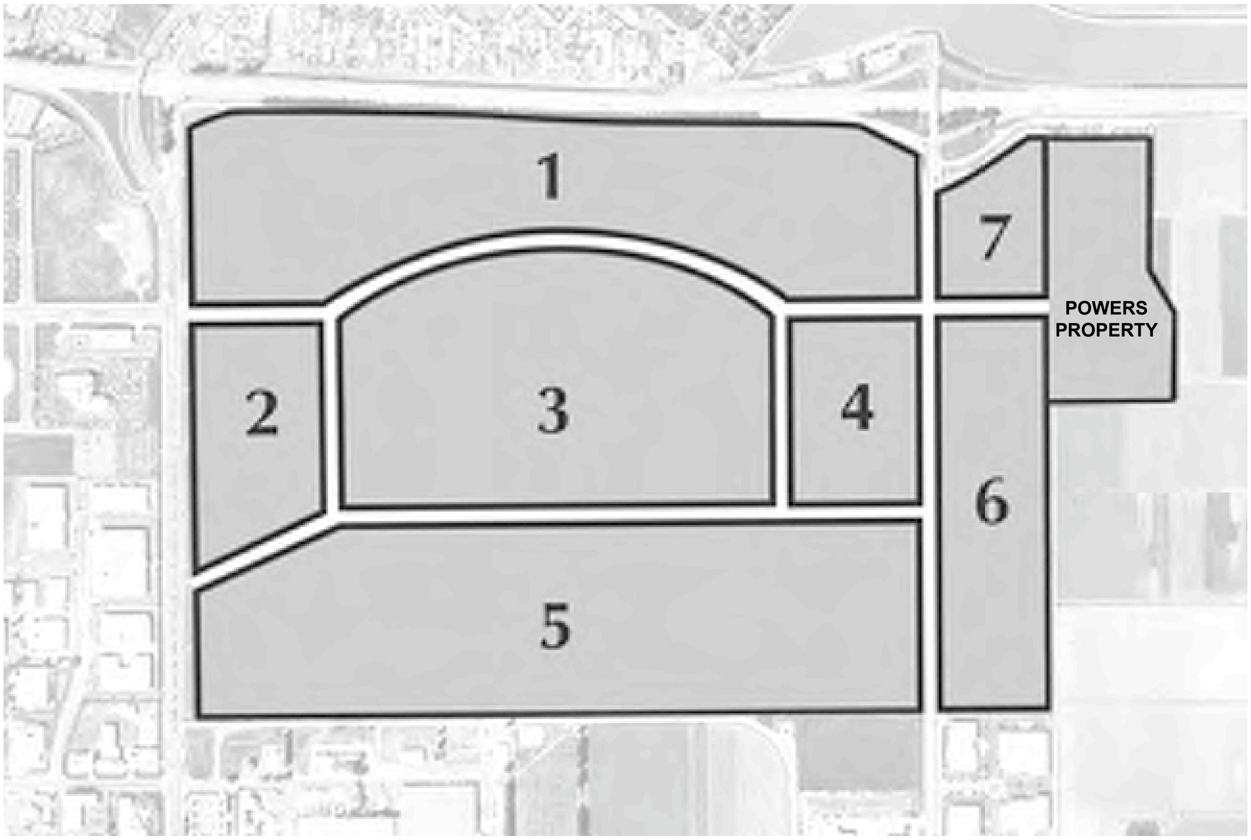
LAND USE SUMMARY
EXHIBIT 4.3 cont.

RESIDENTIAL	
D.U.	AC
890	142

LAND USE AREA MAPS
EXHIBIT 4.4 cont.



RESIDENTIAL

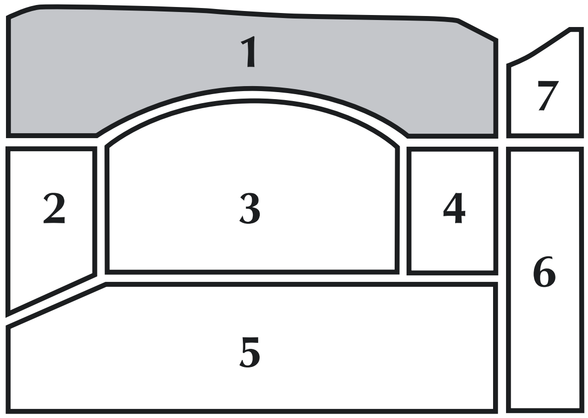


SPECIFIC PLAN PLANNING AREAS
EXHIBIT 4.5

4.1 PLANNING AREAS

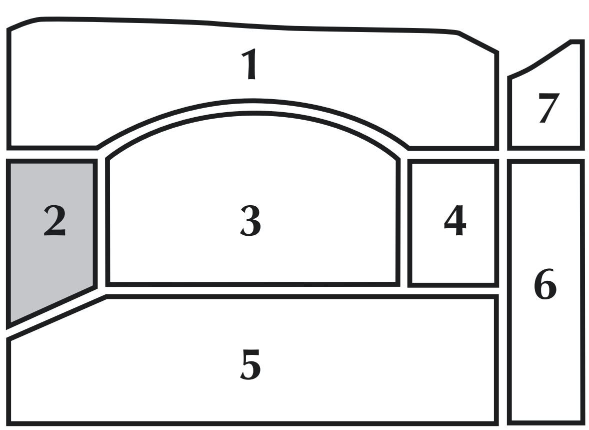
The Specific Plan divides the site into seven Planning Areas. The purpose of identifying separate Planning Areas is to create distinct clusters of activities and allow for individual project development to occur in a manner consistent with the overall Master Plan Concept. This approach recognizes development phasing patterns, market conditions and establishes sufficient flexibility to provide for the opportunity of a variety of activities within each Planning Area.

The Planning Areas are the logical result of the Circulation Plan and adjacent land use and development patterns. Ultimate development of the site will be controlled to a great extent by the amount of anticipated vehicular traffic created by the proposed activities. The Specific Plan area can accommodate a total development of 8,500,000 square feet, or as limited by the proposed circulation improvements and accounted for through a "Trip Generation Budget" (Exhibit 4.10).



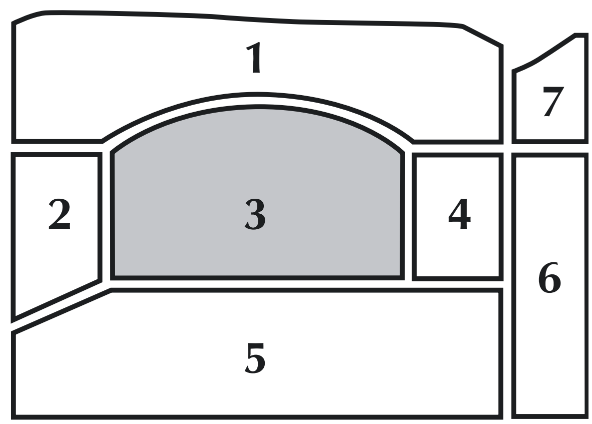
AREA 1

PLANNING AREA 1 is the highest profile portion of the project area located adjacent to the Ventura Freeway. Defined by an extension of Gonzales Road, this area will not only serve as the visual focus for the project, but also as a major eastern gateway to the City of Oxnard. High profile office and commercial development is anticipated for this portion of the project. The area consists of approximately 80 acres and can accommodate a high concentration of uses. Due to the Planning Area's location, it will establish the primary design image of the Specific Plan.



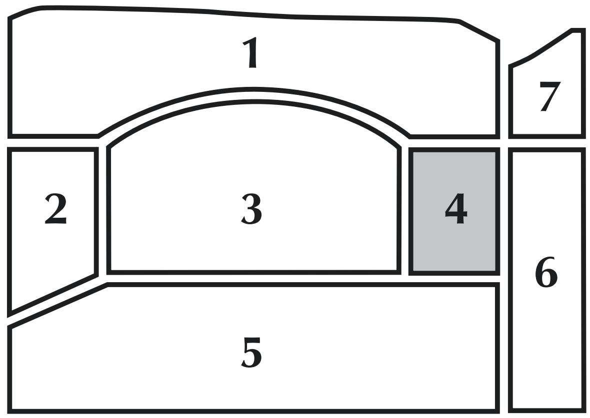
AREA 2

PLANNING AREA 2 fronts Rice Avenue, the westerly edge of the project. This Planning Area will provide opportunities for new office, residential, business research facilities, industrial and related development projects. The area comprises approximately 35 acres and will maintain the design theme established in Area 1 and transition into the more traditional industrial activities anticipated for Planning Area 5.



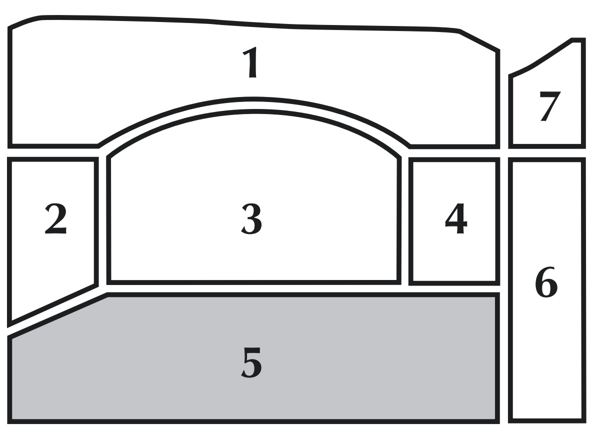
AREA 3

PLANNING AREA 3 is the central portion of the project area and as such a number of alternatives may be considered. One option proposes a high intensity core with larger office buildings, residential uses and integrated community facilities and commercial opportunities. This Planning Area may also become a continuation of the traditional industrial development to the south. A large undeveloped site is very desirable to major industrial tenants and this location, with convenient access to the freeway from two locations, may prove to be ideal. This area is approximately 77 acres in size and can accommodate a range of development options.



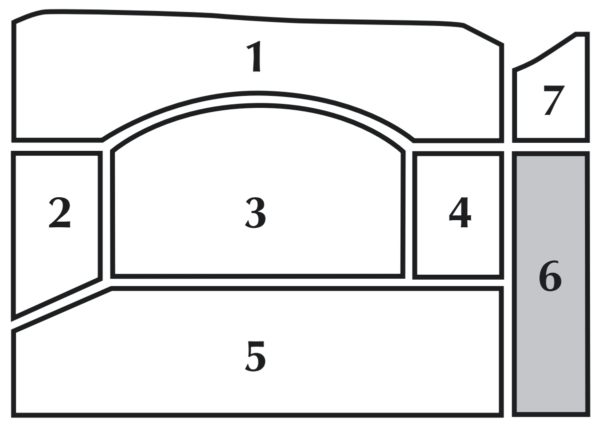
AREA 4

PLANNING AREA 4 is located along Del Norte Boulevard. This area may develop in a pattern very similar to Area 2, with an emphasis on new offices, residential and business research facilities. The area may also develop in a manner similar to other industrial projects to the south and cater to smaller traditional industrial projects. Area 4 consists of 30 acres and will assist in establishing the project theme for the eastern portion of the project area.



AREA 5

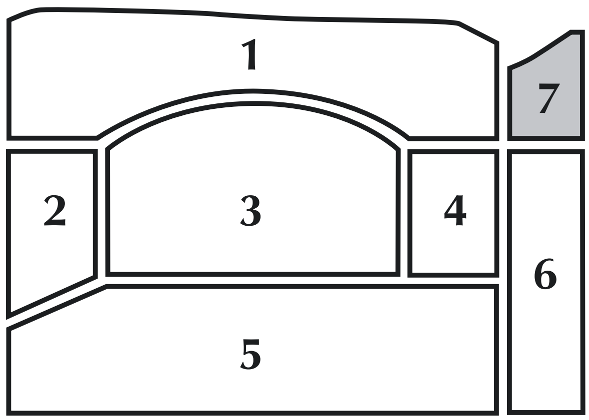
PLANNING AREA 5 is designated as the primary light industrial site. This area will cater to major industrial tenants desiring to relocate to the Oxnard area. Area 5 consists of 116 acres and will accommodate new industrial development that will maintain and reinforce the Master Plan concept for the Specific Plan area.



AREA 6

PLANNING AREA 6 is the eastern boundary of the project, with a significant amount of frontage on Del Norte Boulevard. This area consists of 36 acres and may be developed a number of different ways.

Future activities for the area will depend on market conditions and may include a combination of light industrial and research development uses. Future development activities may reflect an expansion of the existing activities to the south and west or present opportunities for independent new projects.

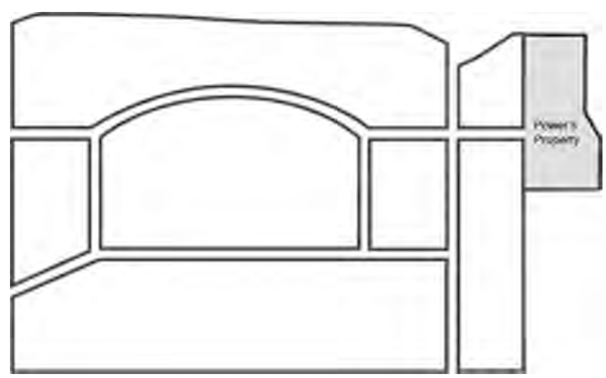


AREA 7

PLANNING AREA 7 is in the northeastern portion of the project. Although the smallest of all the Planning Areas, 14 acres in size, it may become one of the highest profile sites and is well situated for office and convenience commercial activities. This area will also include opportunities to enhance future planning and development activities on the adjacent property to the east of the project.

POWER'S PROPERTY

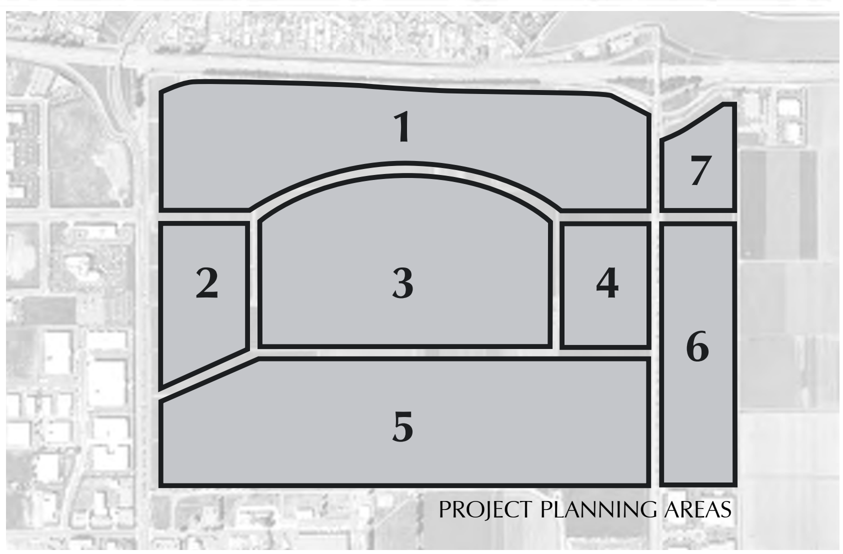
The Power's family property lies directly to the east of the project area. The site consists of forty eight (48) acres and current land uses include limited business park development and agriculture production. The current General Plan and Zoning designations call for future Business Research Park (BRP) use. Future access to the site will be by way of an extension of Gonzales Road eastward from Del Norte Blvd. This area will provide for additional business park development through its own Specific Plan, and should be constructed in a manner consistent with the Specific Plan and contain compatible activities.



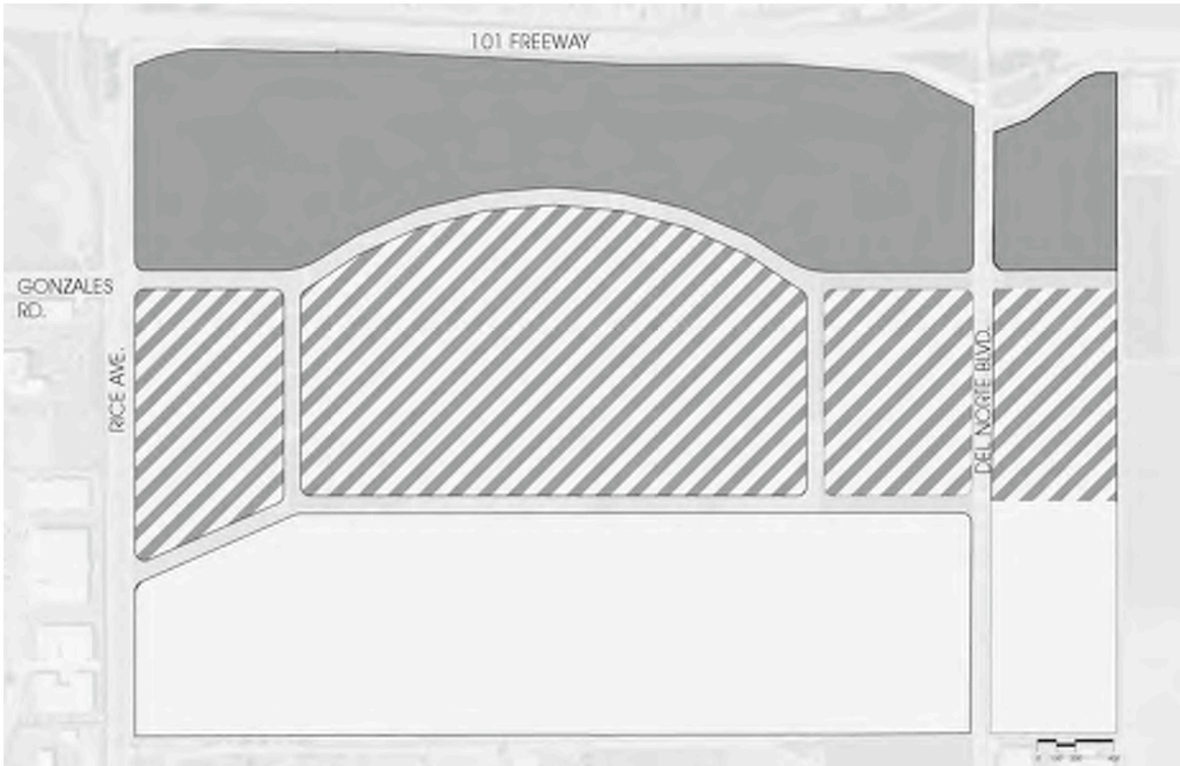
POWER'S PROPERTY

ALLOWED LAND USE BY SUB AREA
EXHIBIT 4.6

LAND USE	SUB AREA						
	1	2	3	4	5	6	7
INDUSTRIAL		○	○	○	○	○	
BUSINESS/RESEARCH	○	○	○	○		○	○
COMMERCIAL	○		○				○
OFFICE	○	○	○	○			○
RESIDENTIAL		○	○	○			
PARK		○	○	○			
PUBLIC FACILITY FIRE STATION		○	○				
AGRICULTURE	○	○	○	○	○	○	○
TOTAL NET ACRES *	80	35	77	30	116	36	14



MASTER PLAN
EXHIBIT 4.7



	NET ACRES	F.A.R.	APPROX. SQ. FT. (MIL) BRP	LT. IND	TOTAL
BUSINESS RESEARCH	94	0.5	1.4	-	1.4
BUSINESS RESEARCH/LIGHT INDUSTRIAL	160	0.5	1.6	2.4	4.0
LIGHT INDUSTRIAL	134	0.5	-	3.1	3.1
	388*	——	3.0	5.5	8.5

* Estimated total net developable area

4.2 MASTER PLAN

A Master Plan has been prepared that establishes the direction under which the Specific Plan will be developed. While land use flexibility is permitted, only one Circulation Plan is proposed. The Circulation Plan will be one of the primary controlling factors in the ultimate development of the project area. A number of conceptual circulation and land use configurations were evaluated for the site. From these studies, a single Master Plan and project description has been developed.

The Master Plan's flexibility will allow for the greatest variety of activities and accommodate different development phasing patterns and schedules. This flexibility in design will also allow for the creation of unique parcelization patterns with the ability to custom-fit a wide range of development scenarios within the project area.

The Master Plan permits a great number of options regulated through the comprehensive, Specific Plan guidelines and standards.

The Master Plan recognizes the area adjacent to the Ventura Freeway as a gateway to the City and suggests a series of high profile, high quality office buildings. The concept anticipates a core of high-rise office buildings, surrounded by lower profile office and office/business research uses. The dynamics of this approach may result in a greater demand for business and research activities over the project area. The central portion of the site allows for business research, light industrial or office activities. The areas south of the extension of Gonzales Rd. and immediately adjacent to Rice Ave. and Del Norte Blvd. is a flexible zone for business research and light industrial activities.

Retail activities are permitted in the northern portion of the site. This freeway adjacent location will allow for a variety of retail uses in a portion of the community currently with few services.

Traditional industrial uses will be accommodated in the central and southern portions of the project area. Large, medium and small parcels are anticipated for a variety of industrial users.

Residential uses will also be permitted within the central portion of the project area.

The objective of the Specific Plan is to implement the goals and policies of the Oxnard General Plan by defining the physical development of the Sakioka Farms Business Park site. Included in this approach are the establishment of land use, circulation, landscape, infrastructure, and architectural design characteristics for the project area. The Specific Plan consists of five major components which guide the development process: the Land Use Plan, Circulation Plan, Public Facilities Plan, Design Guidelines, and detailed Development Regulations.

The Specific Plan identifies and requires sufficient infrastructure and public facilities to adequately and efficiently support anticipated land uses and activities. These improvements will be phased to coincide with or precede individual development projects. This up-front effort will allow future development projects to obtain City approval in an expedited manner, providing the individual projects are consistent with the Specific Plan and the Environmental Impact Report.

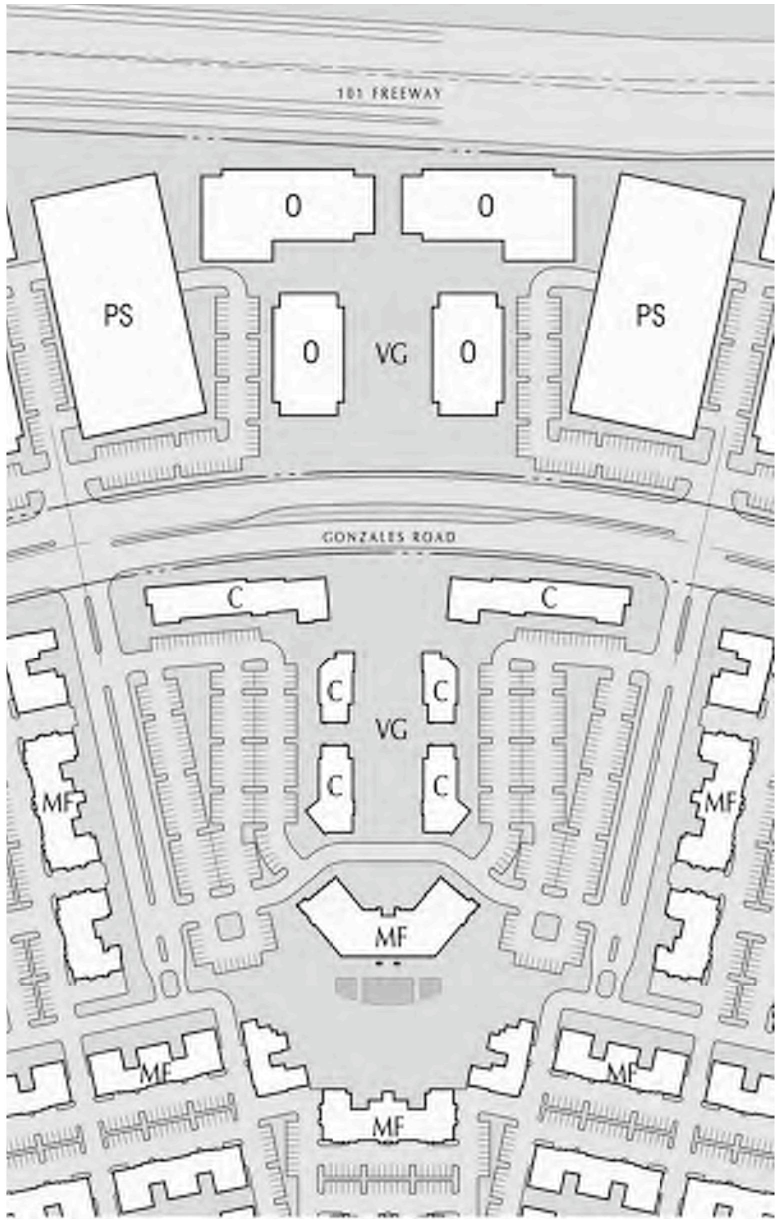
REPRESENTATIVE LAND USE SCENARIO
EXHIBIT 4.8

	Business/ Research		Office		Light Industrial		Commercial		Residential		Park	Fire	TOTAL	
	SQ. FT.	AC	SQ. FT.	AC	SQ. FT.	AC	SQ. FT.	AC	D.U.	AC	AC	AC	SQ. FT.	AC
1	1,300,000	45	400,000	20			80,000	15					1,780,000	80
2	200,000	8			600,000	21			220	6			800,000	35
3	600,000	22			1,200,000	40.5			450	13			1,800,000	77
4	200,000	8			500,000	16			220	6			700,000	30
5					2,500,000	116							2,500,000	116
6	100,000	4			700,000	32							800,000	36
7	100000	4					20,000	10					120,000	14
TOTAL **	2,500,000	91	400,000	20	5,500,000	225.5	100,000	25	890	25	3	1.5	8,500,000	388*

* Estimated total net developable area
** Ultimate development governed by "Trip Generation Budget"

4.3 LAND USE PLAN

This representative Land Use Summary table has been prepared to reflect an anticipated build-out scenario. The table has been included in order to facilitate analysis of the potential impacts associated with the ultimate development of the project. The figures presented only reflect a potential development pattern. The intensity of development may shift from one Planning Area to another; the numbers represented in the table do not reflect a maximum for any individual Planning Area. The project area as a whole will be regulated by the Circulation Plan and the associated "Trip Generation Budget". Ultimate development must remain consistent with the City's 2020 General Plan anticipating a total of 8,500,000 square feet of industrial and business research park users and related activities. The Specific Plan identifies sufficient infrastructure and public facilities to adequately and efficiently support any and all anticipated land uses and activities permitted under the Specific Plan. These improvements will be phased to coincide with or precede individual development projects. The maximum permitted total floor area for all industrial, office and commercial developments within the Specific Plan Area shall not exceed the General Plan overall floor area allocations. The cumulative square footage of floor area for each of the allowed uses within the Specific Plan have been estimated for each Planning Area; however, these numbers may be modified and transferred as market conditions and / or development concepts dictate. Any modifications and/or adjustment to land use square footage ratios must comply with the "Trip Generation Budget" and other provisions identified in the E.I.R. and City's General Plan.



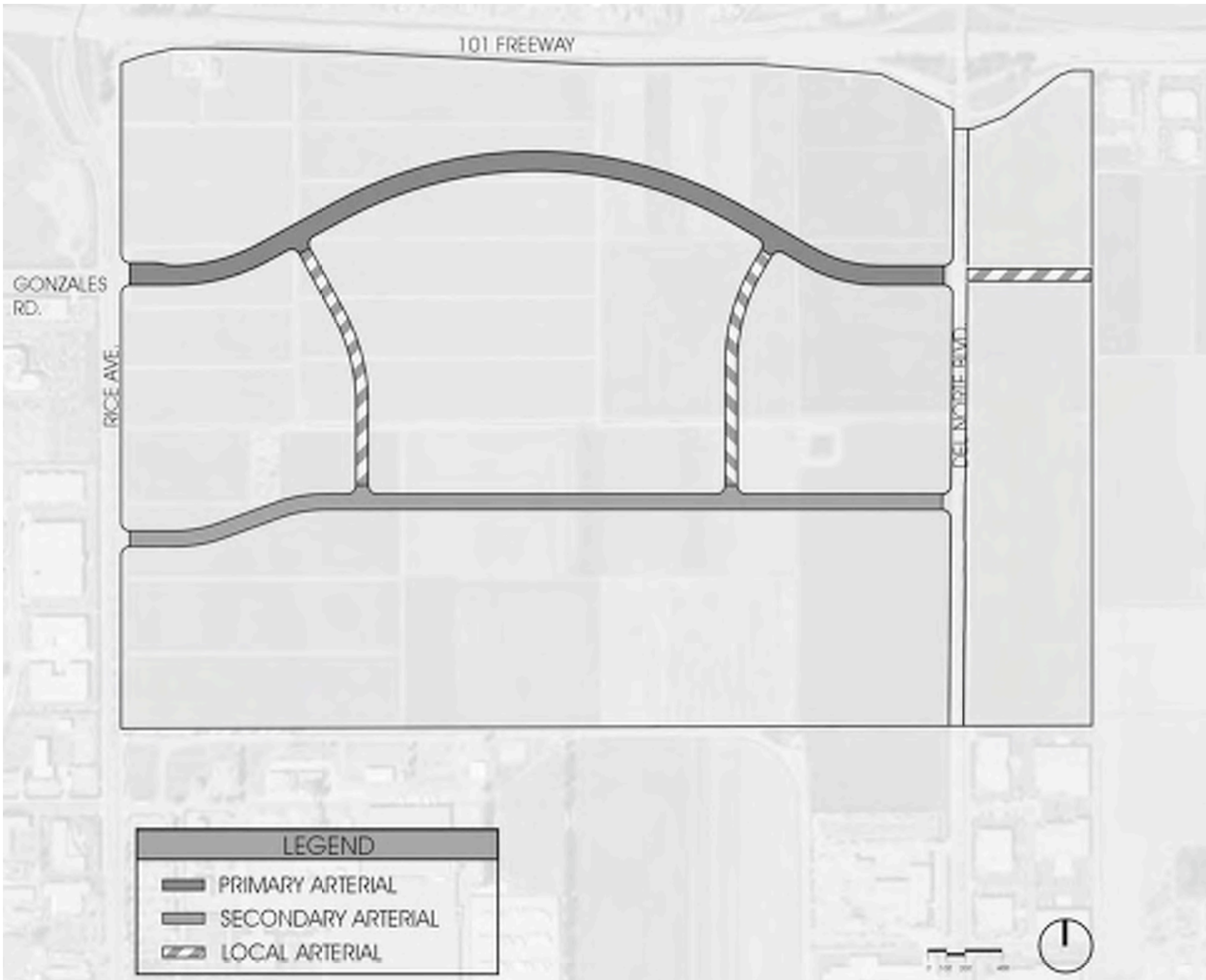
C Commercial
PS Parking Structure
O Office
MF Multi-Family Residential
VG Village Green Park

TOWN CENTER SKETCH
EXHIBIT 4.8.1

4.3.1 TOWN CENTER VISION

The central portion of Planning Areas 1 and 3 is the logical location within the Specific Plan for the development of a mixed-use "Town Center." The Town Center sketch illustrates one of many possible planning development patterns, permitted by the Specific Plan, to create a pedestrian-friendly urban center framed by architecture and landscape design that reinforces community identity. This sketch depicts a complimentary concentration of residential, commercial and office districts with public and private zones radiating from a central park or "village green."

CIRCULATION PLAN
EXHIBIT 4.9



4.4 CIRCULATION PLAN

The Circulation Plan is designed to accommodate a number of different development scenarios. The overall circulation concept relies on a hierarchy of circulation features ranging from major arterials to local streets. The system is designed to accommodate traffic to the project area and around the area while discouraging through traffic intrusion into individual Planning Areas.

The Circulation Plan provides for a phasing of street improvements to correspond to the phased development in each Planning Area. All streets shown on the Circulation Plan are public streets unless otherwise indicated.

In order to efficiently facilitate new development parcels, the primary access will be from interior streets. Direct access from adjacent arterials will be subject to review and approval by the City. Primary access locations into the project area have been located and designed to provide full turning movements. The locations relate to existing driveways and median designs, and are anticipated to adequately serve the projected traffic volumes for the project. Specific future development proposals may require modifications to these anticipated access locations.

The circulation system shall be master planned to accommodate the build-out of the Specific Plan. Incremental phased roadway construction shall be completed prior to occupancy of the facility(s) being served. The City shall approve phasing plans for street improvements, consistent with development construction phasing. Implementation will be through the Subdivision Mapping process.

Due to the variety of land use options, and types of development activity, the overall development intensity shall be regulated by a "Trip Generation Budget" (Exhibit 4.10) for the project with each land use assigned a trip generation factor. Therefore, development will be limited to the parameters analyzed by the current General Plan's Environmental Impact Report.

The Trip Generation Budget in Exhibit 4.10 documents the maximum a.m. and p.m. peak hour trip generation approved for the overall Specific Plan as well as for each Planning Area. Subsequent traffic studies will not be required if the cumulative development, regardless of specific land use mixes, within each Planning Area does not exceed the peak hour directional maximums noted in Exhibit 4.10. If development is proposed that exceeds any Planning Area maximum but the overall Specific Plan is not exceeded then a focused traffic study approved by the Director of Public Works shall be required that demonstrates no additional off-site mitigation measures are required. The intent of this provision is to allow future flexibility (to move trips from one Planning Area to another) in the evolving development of the Specific Plan. If no additional off-site mitigation measures are required or if development is proposed that exceeds the adopted Specific Plan then formal traffic studies and CEQA requirements will be triggered.

The Circulation Plan illustrates the general alignments, classifications and location of major public streets within the project. The Circulation Plan is consistent with the Oxnard General Plan's Circulation Element.

Access to the City of Oxnard and the Sakioka Farms Business Park is provided by Interstate 101, the Ventura Freeway. The City's General Plan designates the intersection of Gonzales Road and Rice Avenue as a primary entry node to the City. Access to the project is provided by a system of arterial highways including:

- Rice Avenue, a north-south major arterial highway (6 travel lanes) designated as a truck route, business route, scenic highway and City Image Corridor. Based on a Memorandum of Understanding between the City and Caltrans, Rice Avenue will, in the future, be under the jurisdiction of Caltrans and subject to their regulations.

- Del Norte Boulevard, a north-south primary arterial highway (6 travel lanes) designated as a truck route and scenic highway.
- Gonzales Road, an east-west primary arterial highway (6 travel lanes) designated as a truck route, business route and scenic highway.

The Circulation Plan will require an extension of Gonzales Rd. into and through the project area. This will also necessitate the creation of a full, at grade four-way intersection at Gonzales Road and Rice Avenue. The roadway design should include a moderate radius to not only add street character but to provide more acreage for development in the central core area of the project. A second west to east major arterial is proposed approximately 1200 feet to the south. This arterial intersecting Rice Ave. and Del Norte Blvd. is critical to relieving traffic demand at the Gonzales Road intersections. This roadway would better facilitate the large truck traffic associated with major industrial uses and create a clear division of business research and mixed use activities from more traditional industrial uses. The new roadway should be designed to intersect, at grade, with Rice Avenue midway between the two existing traffic signals. Secondary roadways are proposed to connect these west/east corridors and should be located to achieve the best parcelization patterns. Two major project entry nodes will occur where Gonzales Road meets Rice Avenue and Del Norte Boulevard. Two secondary entry nodes are planned for the new intersections of Rice Avenue and Del Norte Boulevard with the new east/west arterial.

Additional internal project circulation will be provided by a network of public and private streets serving as access to individual parcels within the project area. Circulation is further enhanced by a number of entry drives and public transportation facilities. There are currently signalized intersections at Rice Avenue and Gonzales Road, and Rice Avenue at the entrance to the Procter and Gamble facility, south of the project. Alternative forms of transportation should also receive careful consideration. The current bus route passes the project area on Rice Avenue with continuation west along Gonzales Road. The project Circulation Plan identifies existing and proposed bus turnout locations along the adjacent arterials. As a supplement to vehicular access to the project area, potential future access may be available from the rail line to the south of the project area.

In addition, the Master Plan Concept incorporates a public pedestrian walkway system. As a means of achieving a strong landscape image, landscape parkways and pedestrian walkways are required on both sides of the street and shall be provided in the street right-of-way adjacent to new development projects.

TRIP GENERATION BUDGET
EXHIBIT 4.10

Sakioka Farms Specific Plan Trip Generation Budget										
Planning Area	Land Use	Units (TSF)	Trip Generation							
			ADT	AM-In	AM-Out	AM-Total	PM-In	PM-Out	PM-Total
1	Business/Research	1,300	13572	1456	286	**1742**	299	1248	**1547**
	Office	400	5612	540	68	**608**	128	620	**748**
	Commercial	80	3200	10.4	4	**14.4**	118.4	122.4	**240.8**
	Sub Total		**22384**	**2006.4**	**358**	**2364.4**	**545.4**	**1990.4**	**2535.8**
2	Business/Research	200	2088	224	44	**268**	46	192	**238**
	Light Industrial	600	3900	348	108	**456**	150	366	**516**
	Residential (units)	220	1760	37.4	110	**147.4**	99	72.6	**171.6**
	Sub Total		**7748**	**609.4**	**262**	**871.4**	**295**	**630.6**	**925.6**
3	Business/Research	600	6264	672	132	**804**	138	576	**714**
	Light Industrial	1,200	7800	696	216	**912**	300	732	**1032**
	Residentialv (units)	450	3600	76.5	225	**301.5**	202.5	148.5	**351**
	Sub Total		**17664**	**1444.5**	**573**	**2017.5**	**640.5**	**1456.5**	**2097**
4	Business/Research	200	2088	224	44	**268**	46	192	**238**
	Light Industrial	500	3250	290	90	**380**	125	305	**430**
	Residential (units)	220	1760	37.4	110	**147.4**	99	72.6	**171.6**
	Sub Total		**7098**	**551.4**	**244**	**795.4**	**270**	**569.6**	**839.6**
5	Light Industrial	2,500	16250	1450	450	**1900**	625	1525	**2150**
	Sub Total		**16250**	**1450**	**450**	**1900**	**625**	**1525**	**2150**
6	Business/Research	100	1044	112	22	**134**	23	96	**119**
	Light Industrial	700	4550	406	126	**532**	175	427	**602**
	Sub Total		**5594**	**518**	**148**	**666**	**198**	**523**	**721**
7	Business/Research	100	1044	112	22	**134**	23	96	**119**
	Commercial	20	800	2.6	1	**803.6**	29.6	30.6	**60.2**
	Sub Total		**1844**	**114.6**	**23**	**937.6**	**52.6**	**126.6**	**179.2**
Specific Plan	**Total**		**78,582**	**6,694**	**2,058**	**9,552**	**2,627**	**6,822**	**9,448**

Trip Generation Rates[1]								
Land Use	Units	ADT	Peak Hour					
			AM-In	AM-Out	AM-Total	PM-In	PM-Out	PM-Total
Business Park/R&D Center	TSF	10.44	1.12	0.22	1.34	0.23	0.96	1.19
Light/General Industrial	TSF	6.5	0.58	0.18	0.76	0.25	0.61	0.85
Office	TSF	14.03	1.35	0.17	1.52	0.32	1.55	1.87
Multi-Family Residential	Units	8	0.17	0.5	0.67	0.45	0.33	0.78
General Commercial	TSF	40	0.13	0.05	0.18	1.48	1.53	3

[1] Source: Oxnard Traffic Model

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LSA ASSOCIATES, INC.

4.4.0 CIRCULATION POLICIES

4.4.1 Gonzales Road shall be designed as an east/west primary arterial. Gonzales Road shall be improved and dedicated as a public street with an 120 foot right-of-way; from Rice Avenue east to the new intersection with Del Norte Boulevard. Gonzales Road shall extend from Del Norte Boulevard to the east property line with a 72 foot right-of-way.

4.4.2 A new east/west secondary arterial, Street "A" shall be improved and dedicated as a public street with an 102 foot right-of-way from Rice Avenue east to a new intersection with Del Norte Boulevard. This new street will be located approximately 1200 feet south of the extension of Gonzales Road.

4.4.3 Two new north/south local arterials, Street "B" and "C" are proposed within the Specific Plan area to connect the two east/west arterials. Each street will be improved and dedicated as a public street with a 72 foot right-of-way.

4.4.4 Primary access to the project area shall be from the existing signalized intersection of Gonzales Road and Rice Avenue, and the proposed new signalized intersections of Gonzales Road and Del Norte Boulevard, and the new east/west arterial with Rice Avenue and Del Norte Boulevard.

4.4.5 Direct access to individual projects from the North/South arterial highways adjacent to the project area shall be limited and allowed only when the project, size, location or type of use, warrants such access, subject to review and approval of the City. No direct access will be allowed to individual parcels from Rice Avenue in accordance with the Memorandum of Understanding between the City and Caltrans.

4.4.6 Deceleration and acceleration lanes for individual developments may be required, depending on the location of the proposed access point. Right turn in and right turn out accesses to the arterial highways shall be considered on an individual project basis, subject to the review and approval by the City.

4.4.7 Trip reduction measures should be included in future development projects in an attempt to implement the Ventura County Congestion Management Program. Trip reduction measures may include providing for bicycle parking facilities and an adequate number of vanpool and carpool parking spaces. Alternative transportation forms including bus service and future rail access, shall be investigated with each development project. Where feasible and appropriate transit stops improvements, like bus pullouts, pads and shelter should be included in the plan. Future projects which employee fifty (50) or more employees may be required to provide basic transportation opportunities and options information to their employees through a Transportation Management Plan.

4.4.8 Pedestrian sidewalks shall be incorporated into each development project as a component of an individual project's landscape plan. Sidewalks shall be a minimum of five (5) feet wide and installed within the street right-of-way on both sides of the street adjacent to new development throughout the project area. Pedestrian walkways are encouraged to link development projects.

4.4.9 Public streets shall be developed to local street standards as shown in the Standard Plans of the City's Public Works Department, or as otherwise approved by the City Traffic engineer. Street patterns throughout the Specific Plan should link together; dead end and cul-de-sac terminations shall be discouraged.

4.4.10 On-street parking shall not be permitted along arterial streets in the project area.

4.4.11 The "Trip Generation Budget" identified in the E.I.R. shall be reviewed with each individual project request. Additional periodic reviews, by the Director of Public Works, will also be necessary for overall compliance with the E.I.R.

4.4.12 Circulation system improvements shall be master planned to accommodate ultimate build-out of the Specific Plan. On-site and off-site circulation improvements shall be completed prior to occupancy to provide appropriate vehicular, pedestrian and bicycle circulation to each parcel.

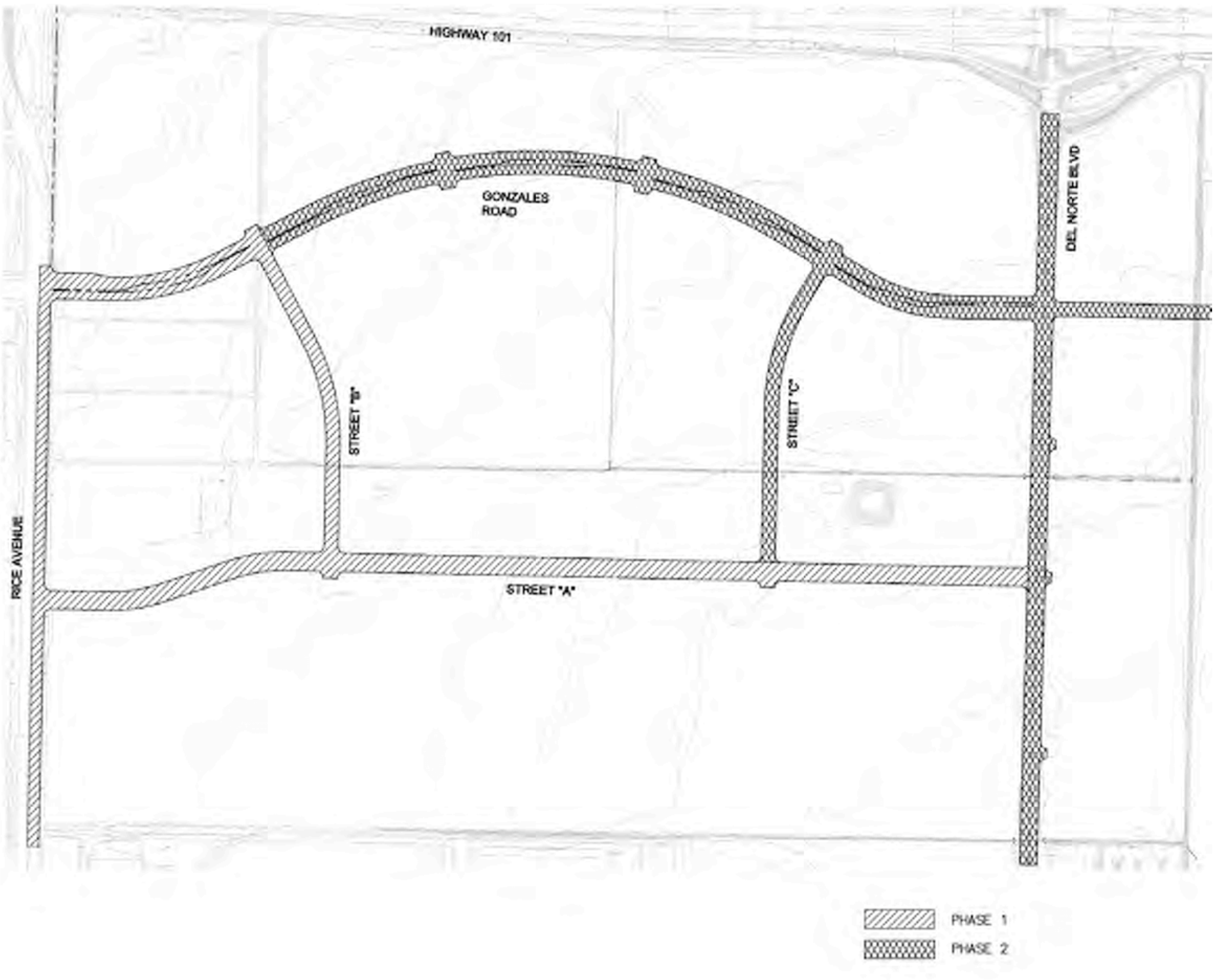
4.4.13 Phasing of public street improvements is permitted subject to review and approval by the City.

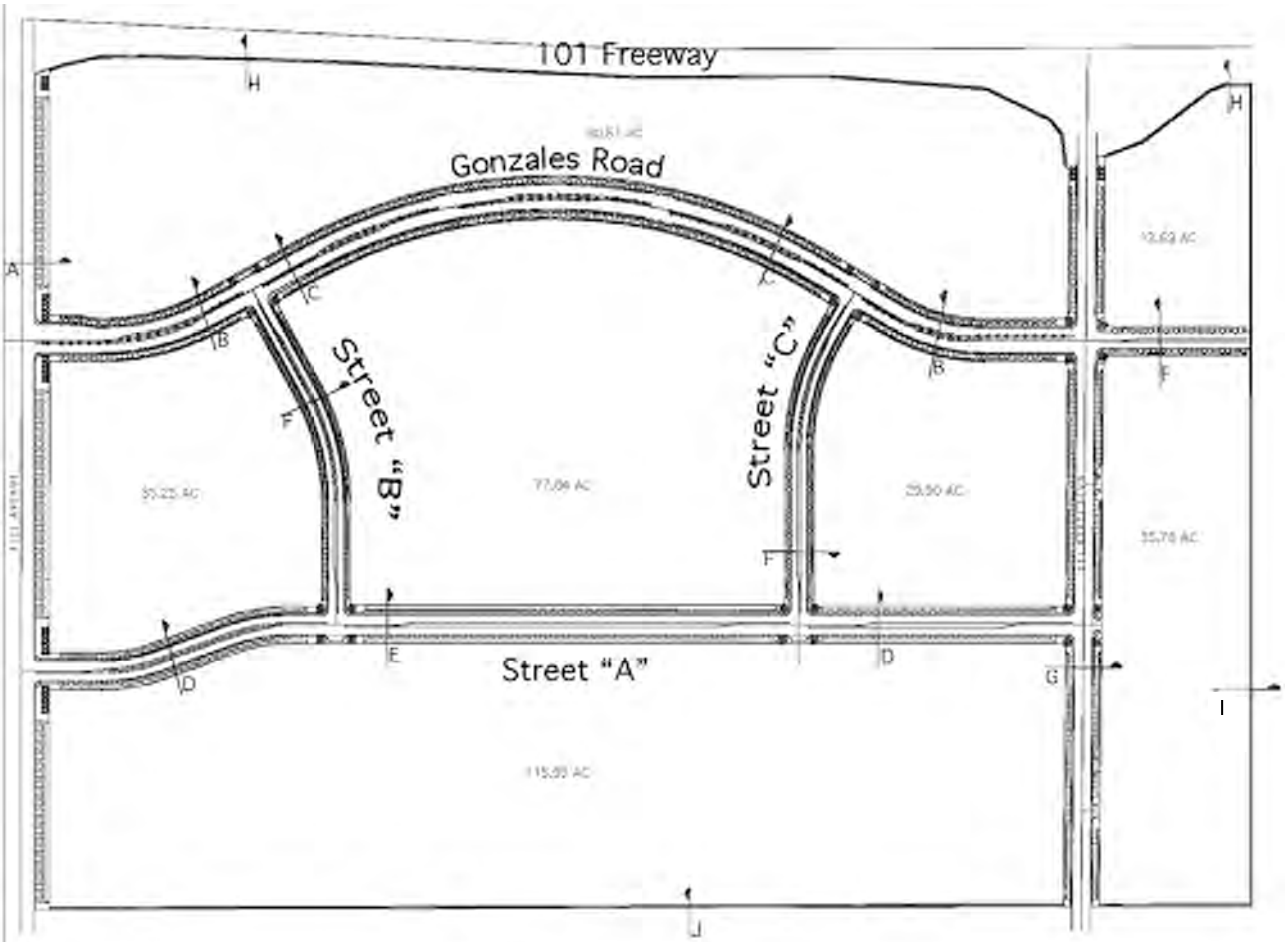
4.4.14 The secondary arterial (Street 'A') intersection with Del Norte Boulevard shall be a full movement three-way intersection with a median break plus the option to create a four-way intersection with a private drive or street entry to Planning Area 6. The Rice Avenue and Street"A" intersection shall also be a full movement three-way intersection with a median break.

STREET CROSS SECTIONS
EXHIBIT 4.11

STREET CROSS SECTIONS
EXHIBIT 4.11.1

CONCEPTUAL STREET PHASING
EXHIBIT 4.12





LANDSCAPE CONCEPT PLAN
EXHIBIT 4.13

4.5 LANDSCAPE CONCEPT

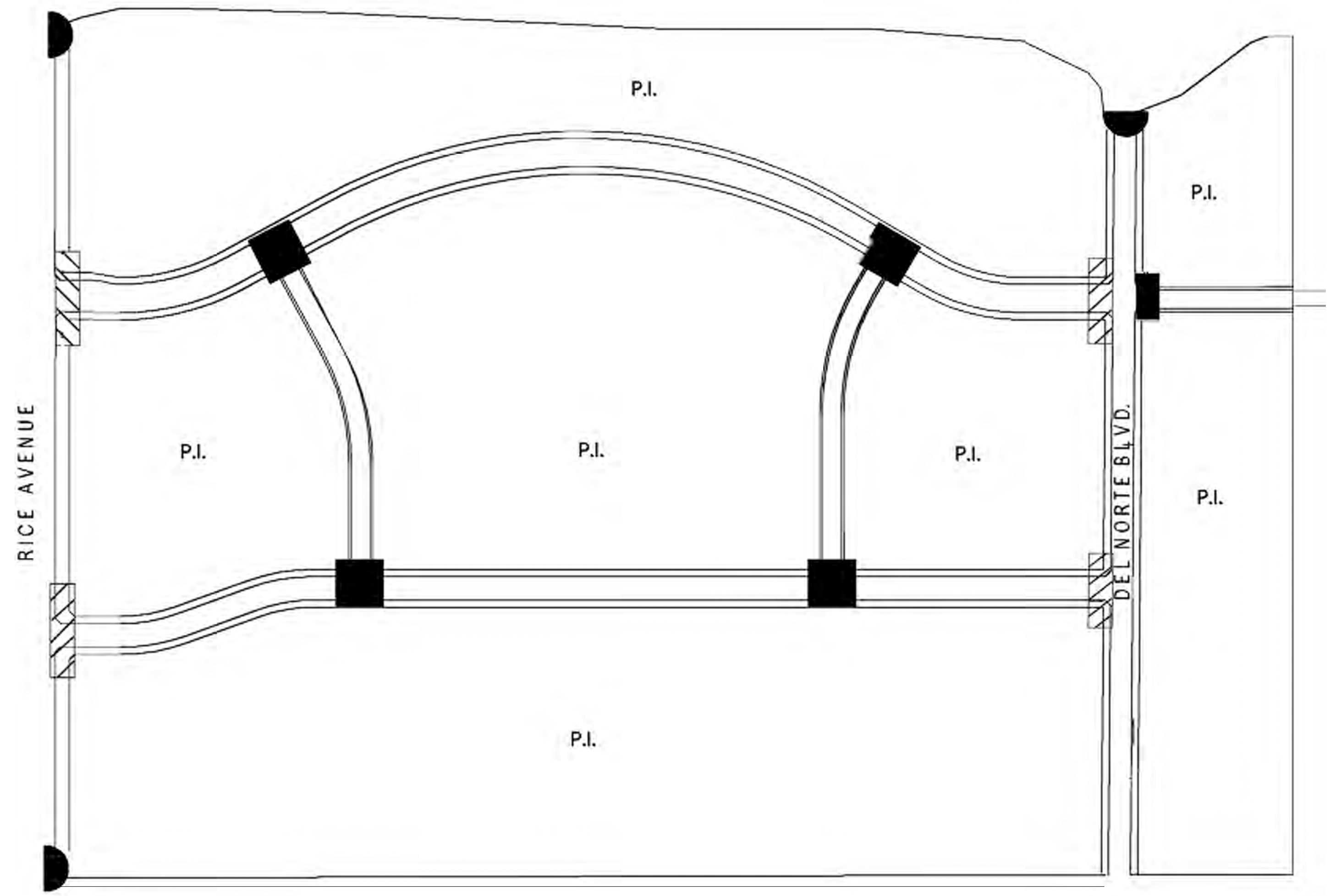
The Landscape Concept for the Sakioka Farms Business Park is intended to create a unique character and identity for the project and community which reinforces the planning and architectural concepts. It is also designed to create a hierarchy and organization of the landscape which assists in way-finding and imaging of the project while providing a visual asset to the community.

Because of the nature of the project, the landscape design will be key to creating the character of the project. The landscape will 'bridge' the varied architectural styles, land uses, and varied scale/massings into a cohesive whole, while visually organizing circulation and uses. The landscape will identify entries and intersections, while providing for a park-like image along the project streets.

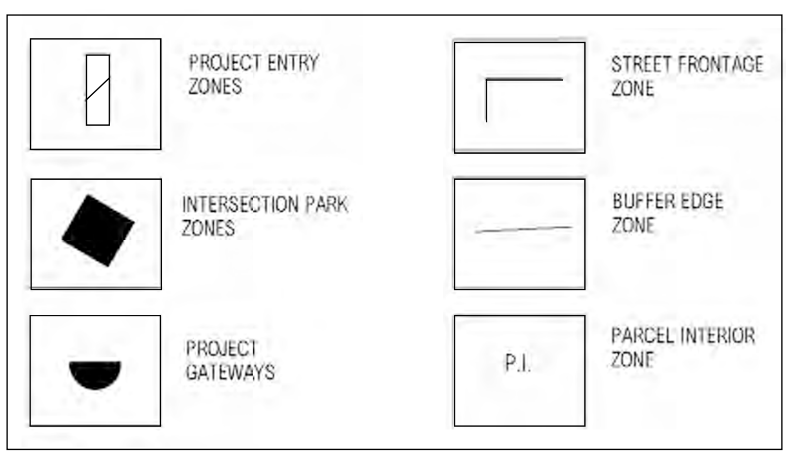
The landscaping objective for the Specific Plan is to create a project area that:

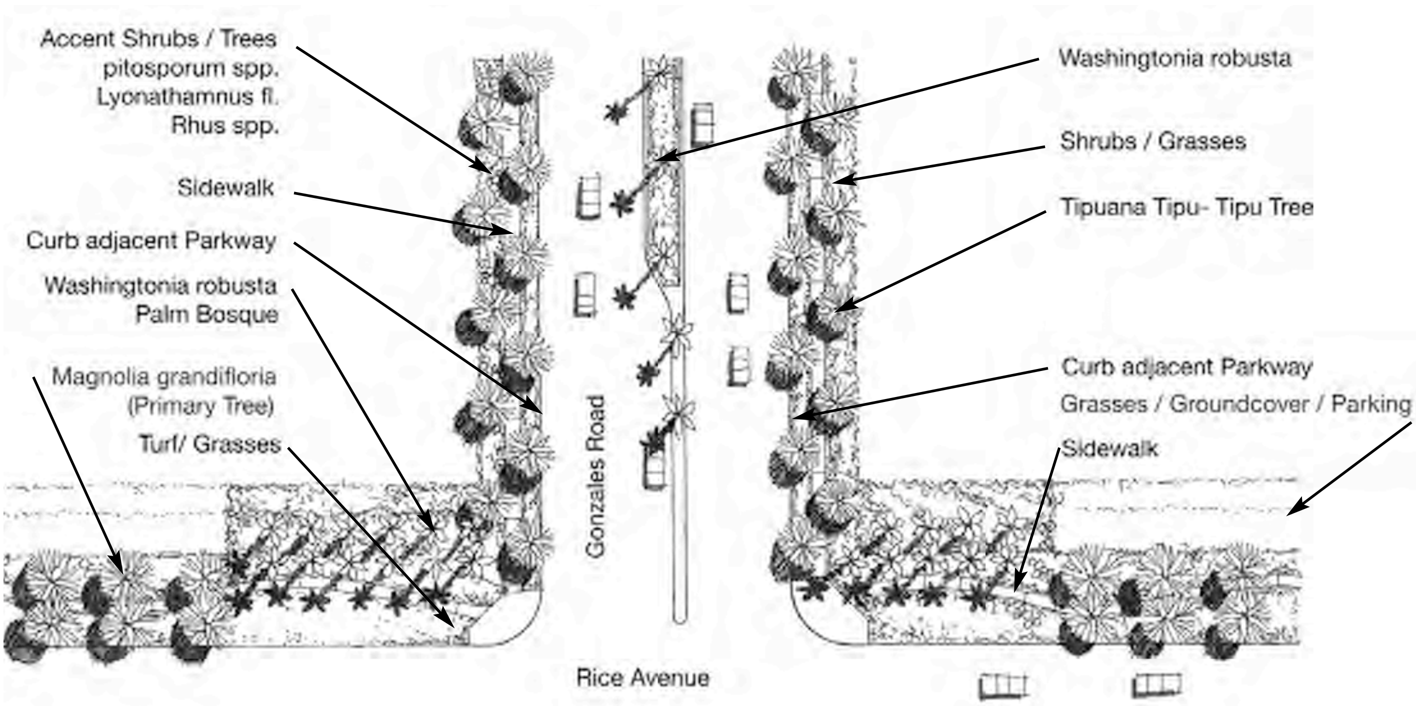
- Reflects the "macro-image" of the site through all levels of the project and acts as a unifying element that ties the individual plans together and weaves through the architecture and infrastructure.
- Develops a pleasant, 'walkable' streetscape
- Creates a memorable vision of the project area and meets or exceed the expectations of tenants and visitors.
- Develops a hierarchy of spaces to assist in visitor and tenant way-finding and identification.
- Ensures the long-term sustainability of the landscape through water conservation irrigation practices, use of drought-tolerant and low water usage materials, and through the limiting of turf use.
- Ensures that individual project landscape proposals are feasible and complement the public landscape areas.
- Considers long-term maintenance viability.
- Provides shade and wind screening for pedestrian use areas
- Reduces the scale of buildings
- Becomes a visual asset to the community

The landscape concept establishes a "California" theme, that includes an eclectic mix of indigenous plant and local materials which reflect the historical and cultural background of the area. These include perimeter landscaping, large landscape setbacks along both interior and perimeter streets, pedestrian walkways which unify the site, and intersection treatments which create a "park-like" atmosphere and assist in visitor way-finding.



LANDSCAPE NODES
EXHIBIT 4.15





PROJECT ENTRIES AT RICE AVENUE
EXHIBIT 4.16

Project Entries

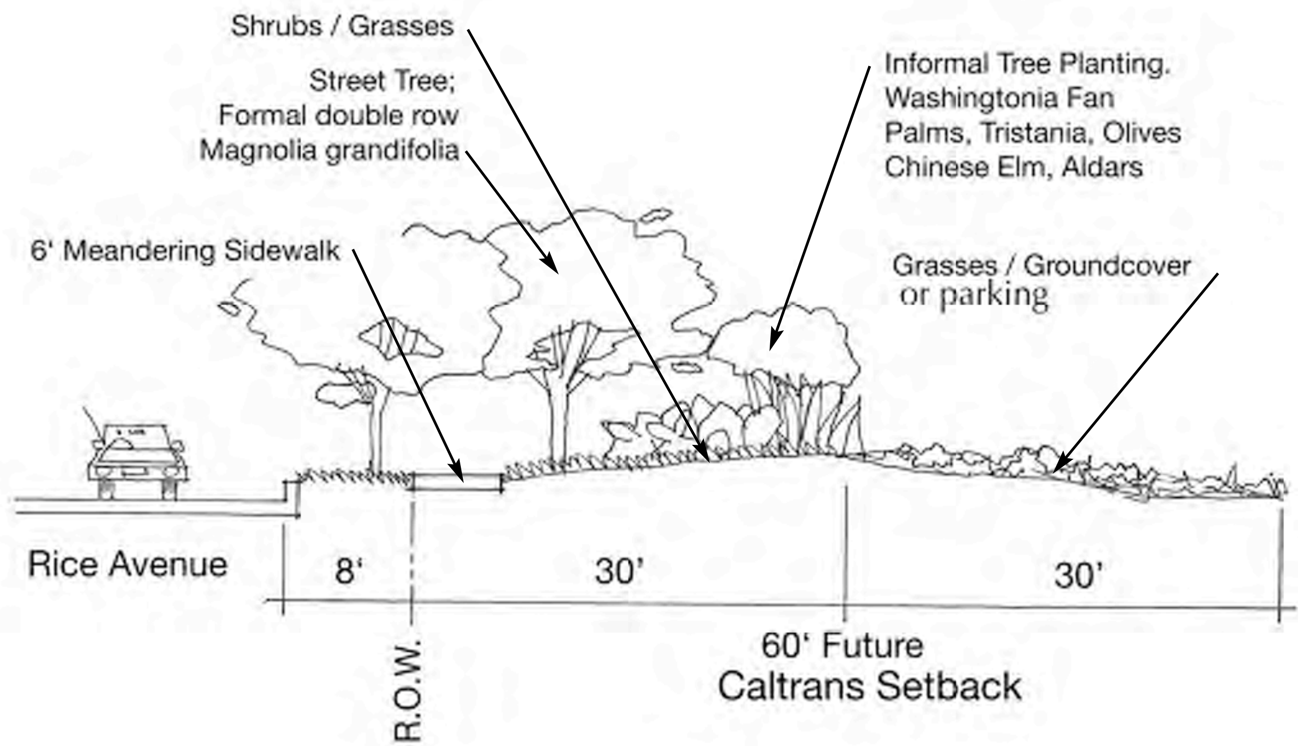
Project entry landscape shall provide a strong visual identity through formal double-row linear planting of hybrid Washingtonian palm bosques and formal shrub massing below. Business Park identification signs (5.4.8) may be incorporated into the entry landscape with a backdrop (and/or foreground) of flowering shrubs and annual color. Formal hedge plantings at the back of the entry landscaping shall screen views of parking and adjacent parcel developments.

The Gonzales/Rice entry landscape shall be approximately 60′ deep and extend approximately 175′ on each side of Gonzales along Rice as illustrated by Exhibit 4.16.

The Street ‘A’/Rice entry landscape shall be approximately 30′ deep and extend approximately 75′ on each side of Street ‘A’ along Rice, similar to Exhibit 4.16.

The Gonzales and Street ‘A’/Del Norte entries shall be approximately 30′ deep and extend approximately 75′ on each side of Gonzales and Street ‘A’ along Del Norte, similar to Exhibit 4.23.

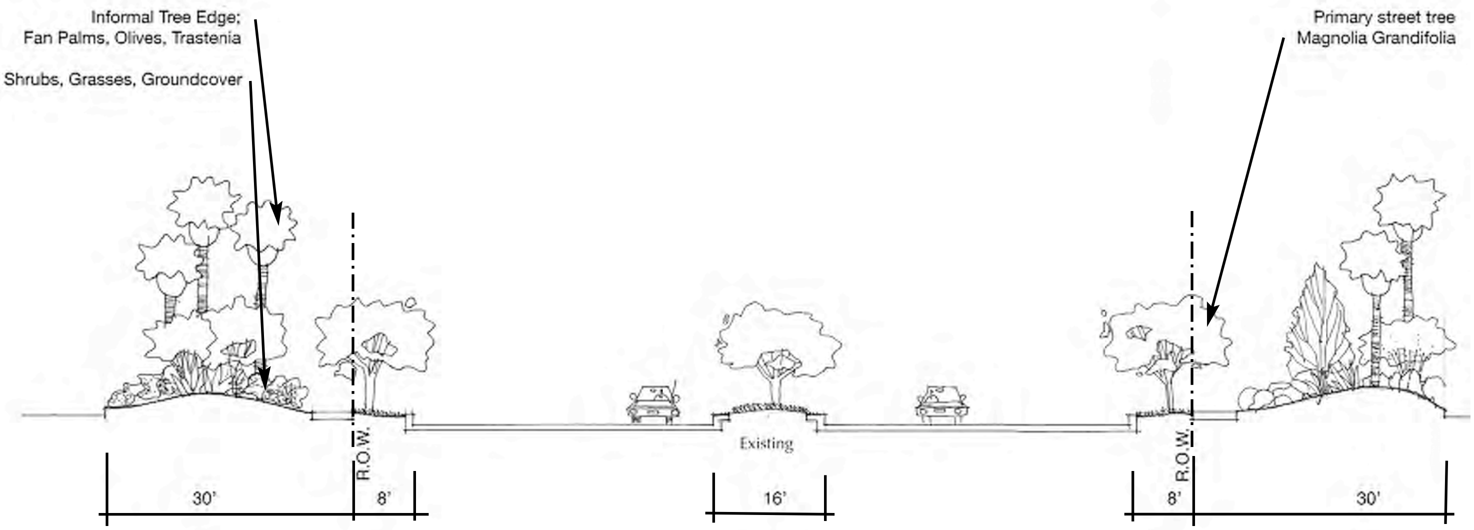
Rice and Del Norte/101 Freeway entries shall be landscaped approximately 100′ back from the property line edges. Exhibit 4.25 illustrates the general concept which shall be finalized in concert with the final Rice and Del Norte interchange design.



RICE AVENUE FRONTAGE SECTION
SECTION A
EXHIBIT 4.17

Project Frontages - Rice Avenue

The street frontage on the east side of Rice Avenue has a 60′ Caltrans setback that is consistant with the City of Oxnard's Memorandum of Understanding with Caltrans. The curb adjacent parkway and a 30′ landscape setback will provide a double row of Magnolia grandiflora trees at 40′ on center with a background of informal Washingtonian palms and a mix of vertical screen trees and smaller flowering trees. Informal drifts of shrubs and grasses / groundcover will stretch along the entire Rice Avenue frontage. The internal 30′ of the Caltrans setback shall be planted in grass / groundcover and or surface parkingr. The Rice Avenue sidewalk is proposed to meander similar to the existing improvements to the south.

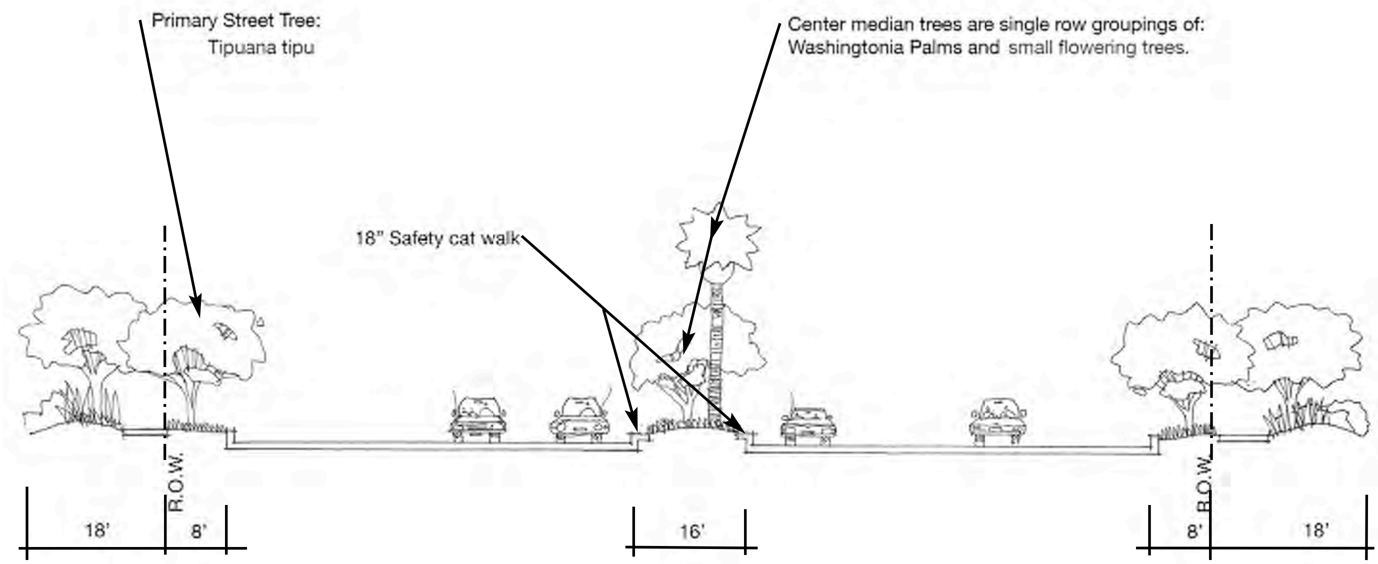


DEL NORTE BOULEVARD STREETSCAPE SECTION
SECTION G
EXHIBIT 4.18

Del Norte Boulevard Landscape

The parkway landscape along Del Norte Boulevard will be planted with a single row of Magnolia grandiflora trees at 40′ on center. The 30′ landscape setback shall create a backdrop consisting of informal groupings of Washingtonian palms and a mix of vertical screen trees and small flowering trees. Informal drifts of shrubs and grasses / groundcover will stretch along the entire length of the setback.

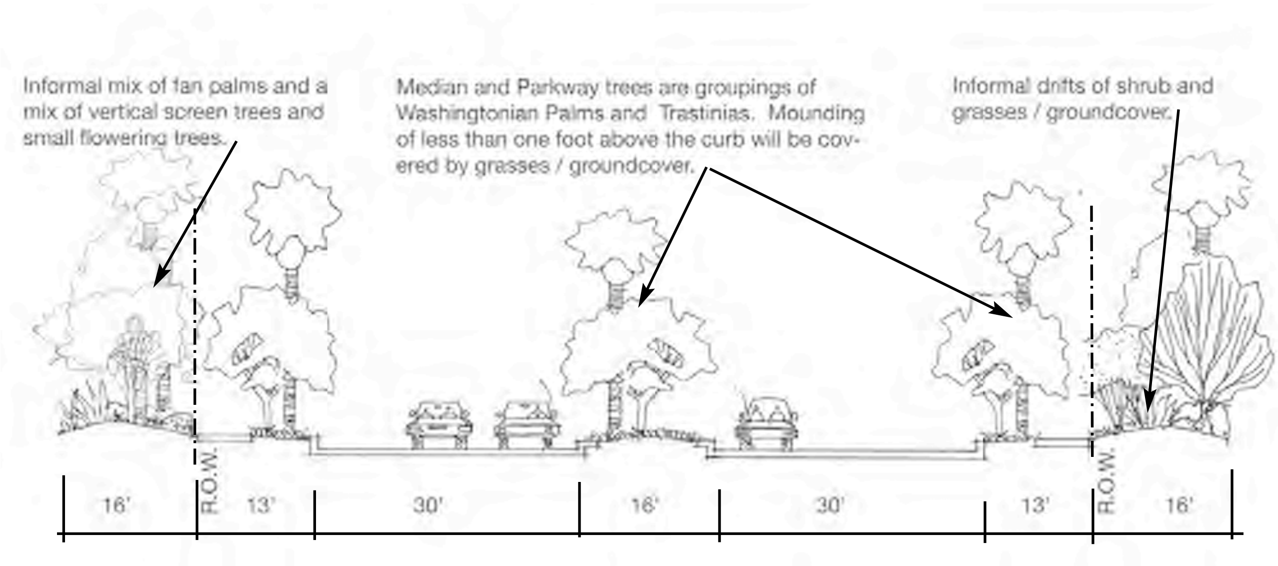
A 6′ sidewalk runs behind the 8′ curb adjacent parkway on both sides of the boulevard. All sidewalk and median improvements / alterations shall be consistent with the existing improvements to the south.



GONZALES ROAD STREETSCAPE SECTION
SECTION B & C
EXHIBIT 4.19

Gonzales Road Landscape

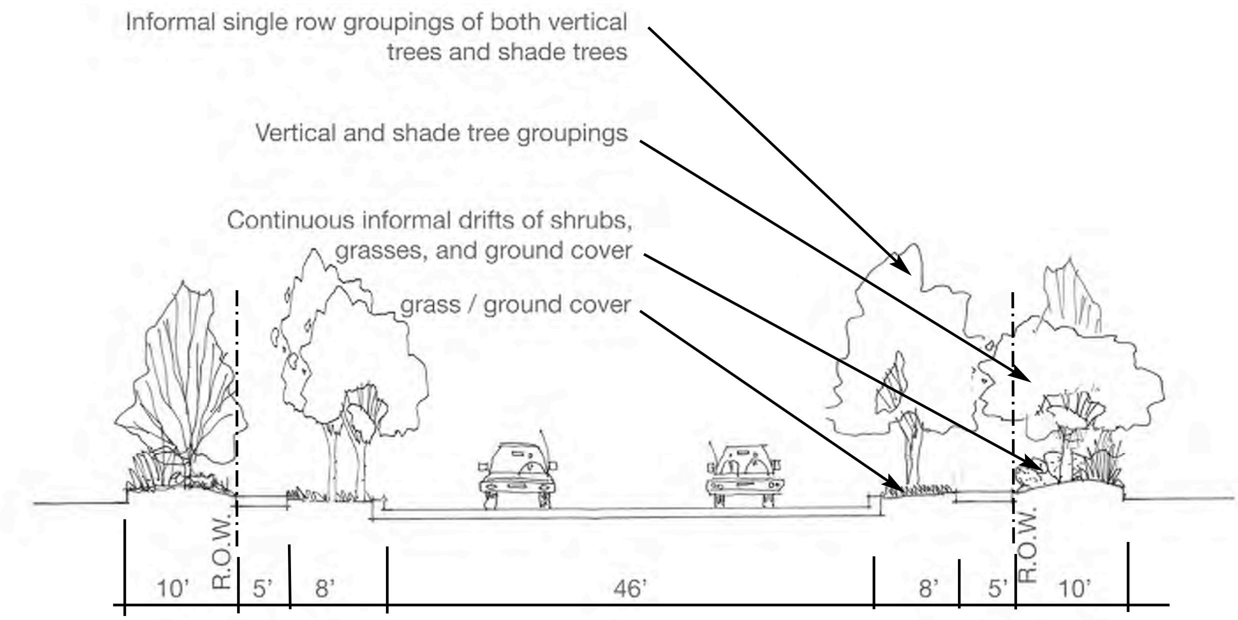
The extension of Gonzales Road, between Rice Avenue and Del Norte Boulevard, will have an 8′ curb adjacent parkway and an 18′ landscape set-back on each side. A 6′ wide sidewalk seperates a double row of Tipuana trees that are triangular spaced at 40′ on-center. Informal groupings of Washingtonian palms and small flowering trees will provide a continuous backdrop above informal drifts of shrubs and grasses / ground cover. The medians will be planted with single row groupings of Washingtonian palms intersperced with groupings of a flowering tree. The median will be mounded to a maximum height of 12″ from the top of curb, be planted with grasses / ground cover and will have an 18″ catwalk on each side.



STREET "A" STREETSCAPE SECTION
SECTION D & E
EXHIBIT 4.20

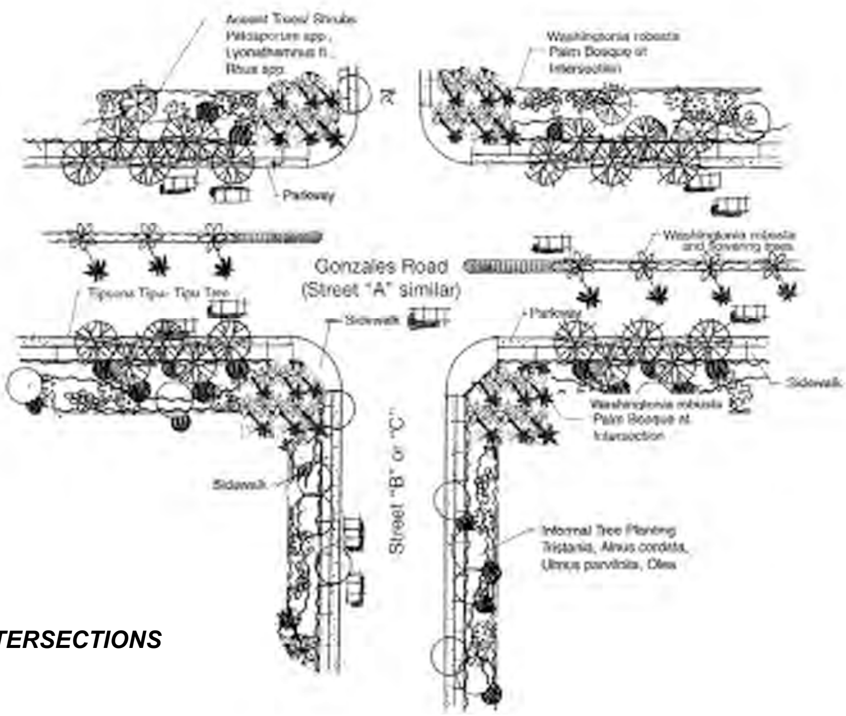
Street "A" Landscape

Street "A", the East-West Connector Street south of Gonzales Road,will have 16′ landscape setback, a 6′ sidewalk and an 8′ curb-adjacent parkway along both sides of the street. A 16′ center median separates two 30′ street sections. The median and parkway shall be planted with groupings of Washingtonian Palms and Trastinias, with a continuous grass / ground cover base. The 16′ landscape setback provides a background planting of informal groups of Washingtonian palms and a mix of vertical screen trees and small flowering trees. Informal drifts of shrub and grasses / ground cover will stretch along the entire Street "A" setback.. The median will be mounted, with a maximum height of no more than 12″ from the top of curb and will have an 18″ catwalk on each side.



STREET "B", "C" AND GONZALES ROAD EXTENSION
STREETSCAPE SECTION
SECTION F
EXHIBIT 4.21

Street "B", "C" and Gonzales Road Extension have an 8′ curb adjacent parkway, a 5′ sidewalk and a 10′ landscape setback along both sides of these streets. The parkway planting design features informal vertical and shade tree groupings with a grass / groundcover base. The 10′ setback is mounded and continues the parkway planting design of informal vertical and shade tree groupings. At their base are continuous iInformal drifts of shrubs, and grasses / groundcover.

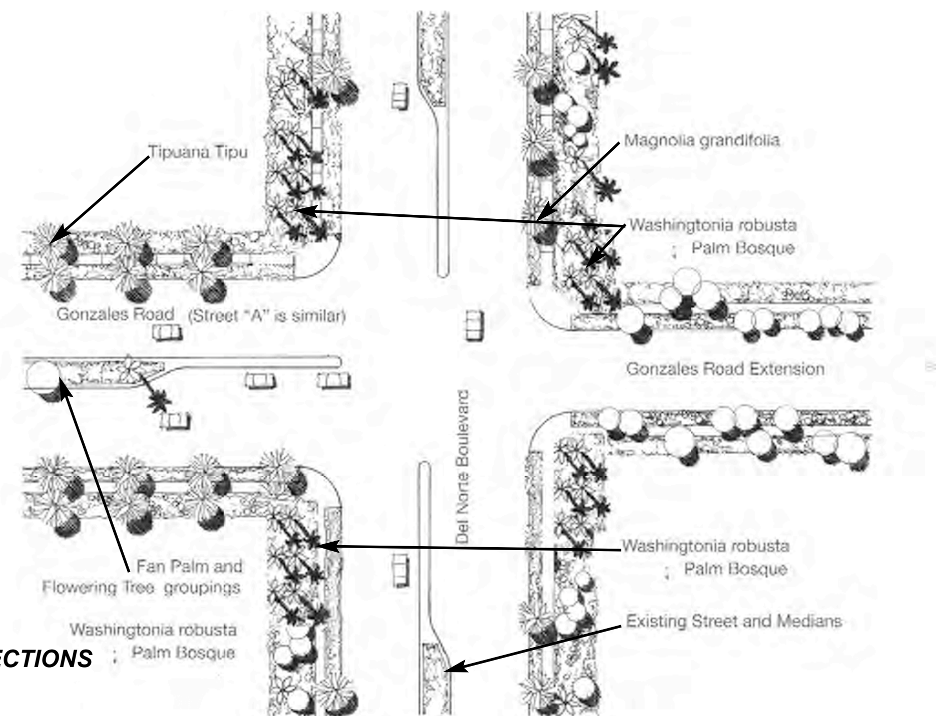


PRIMARY INTERSECTIONS
EXHIBIT 4.22

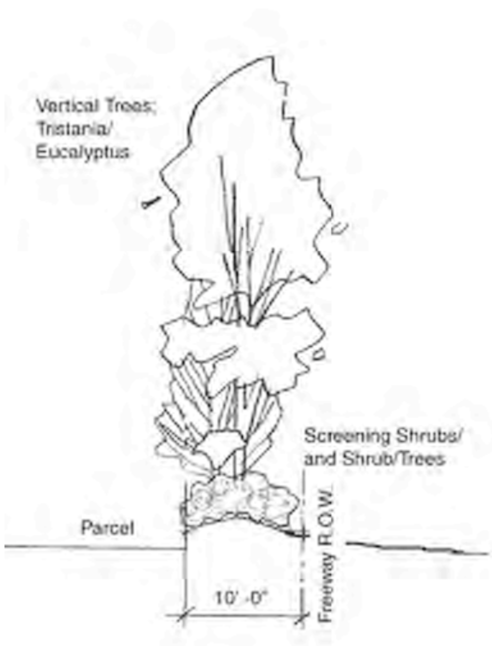
Intersection Treatments

The intersections at Gonzales Road, Street "A", and Streets "B" and "C" are intended to create park-like plantings that also identify the intersections and assist in way-finding.

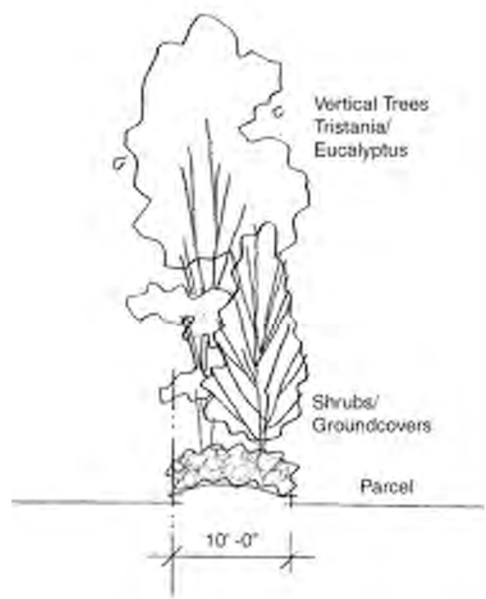
Intersection orner plantings will create a palm bosque of hybrid Washingtonian palms with formal shrub and grasses/groundcover plantings below.



DEL NORTE INTERSECTIONS
EXHIBIT 4.23



EAST BUFFER
(CHANNEL EDGE)
SECTION I



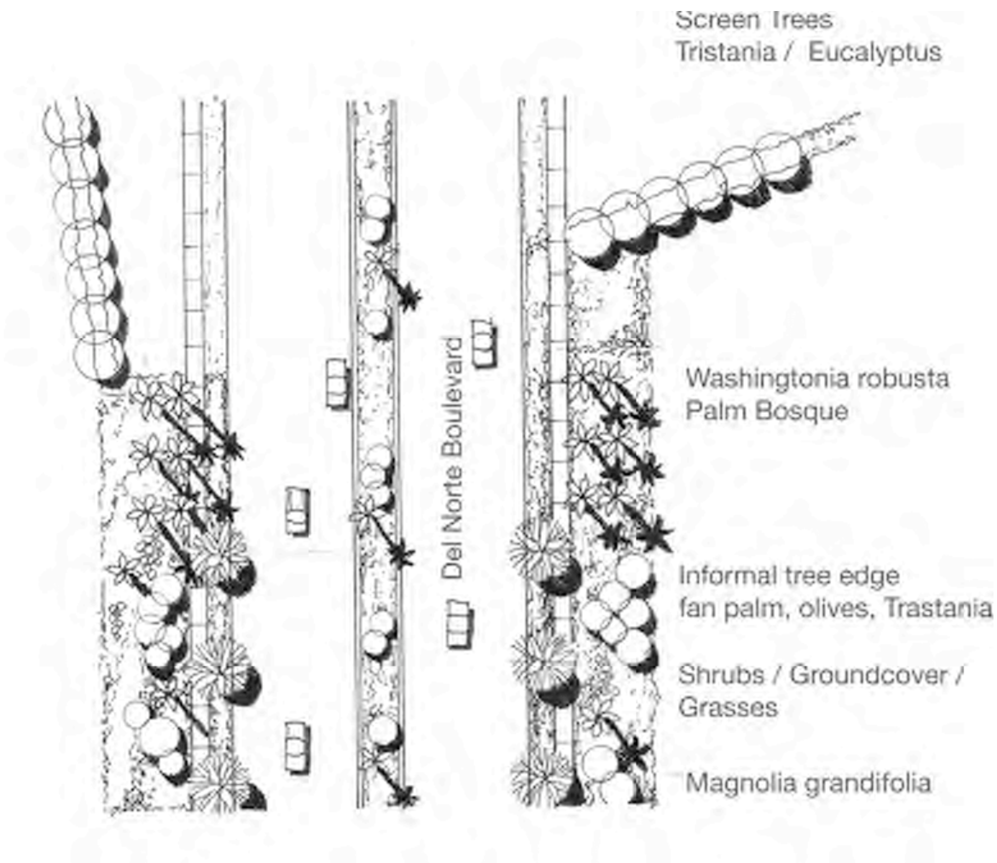
FREEWAY BUFFER
SECTION H

EDGE BUFFER SECTION
SECTION J

BUFFER SECTIONS
EXHIBIT 4.24

Project Perimeters / Buffer Edges

The project perimeters which require landscaping occur along the north property line adjacent to the 101 Freeway, the east property line, and the south property line. The edge setbacks are 10′ typical, and will be planted with informal vertical tree plantings such as eucalyptus, pines, brisbane box, carob trees. Ground plane plantings shall consist of shrub/tree species and hedge material to screen rear parcel areas. Rear parking lot perimeter tree planting shall be 40′ on-center.



101 FREEWAY ENTRIES AT DEL NORTE AND SIMILAR ENTRIES AT THE N.E. CORNER OF RICE AVENUE

EXHIBIT 4.25

Parcel Entries

Individual parcel entries are to be installed by each parcel owner/developer but shall include landscape elements that transition and blend the streetscape design into the parcels. Plant material types and layouts shall be compatible with and complimentary to the adjacent streetscape setback plantings.

Parcel Interior

Parcel Interiors/Private Developer improvements shall be compatible with and complimentary to the overall project landscape theme.

4.6 PUBLIC FACILITIES PLANS

The Public Facilities Plans identify existing and proposed infrastructure, including water, sewer, storm drain system and facility improvements to serve development within the Specific Plan area. A specific analysis of infrastructure requirements and detailed design, construction and phasing plans will be identified in the Infrastructure Master Plan Technical Appendix to the E.I.R.

WATER SYSTEM PLAN

The Water System Plan for the site includes a system of water mains to be constructed in conjunction with the phased project build-out. This system will be contained in the streets and will connect to existing facilities in Del Norte Blvd. and Rice Ave. Water systems shall be looped to provide adequate water pressure and fire flow for each phase of the build-out. Stub outs shall be provided for each lot, and future on-site water mains shall be sized in accordance with the City of Oxnard Fire Department and Public Works Department requirements. Where the needs of future in-tract development exceed system capacity, additional upgrades such as tanks or pump stations may be required to achieve calculated demands.

The existing facilities contained in Rice Ave. and Del Norte Blvd. are adequate to supply the projected needs of the site. A 16″ water main looped through the site will satisfy fire flow requirements, and the merging of two pressure zones serving the area will further improve the available pressure.

All anticipated water system connections should be constructed prior to or concurrently with each respective phase of the site improvements. In accordance with SB610, a water supply assessment will need to be prepared by the public water supplier (Calleguas Municipal Water District) due to the development's size.

SEWER SYSTEM PLAN

The Sewer System Plan for the site includes a system of gravity sewer mains to be constructed in conjunction with the phases build-out, and will connect to existing facilities in Del Norte Boulevard. The proposed sewer system will be constructed to accommodate the worst-case sewage generation assuming the ultimate build-out of the project. The existing sewer system in Del Norte Boulevard has locally sufficient capacity to accommodate the additional waste water discharges anticipated from the site build-out. Proposed sewer main size and layout are generally consistent with the City of Oxnard Standard Plans for Public Works Construction (Standard Plans) and the Draft Wastewater Collection System Master Plan (DWCSMP). Sewers were sized in accordance with the worst case discharge rates and peaking factors found in the City's Standard Plans.

The proposed layout of the project's sewer system differs from that anticipated by the DWCSMP, which predicts the whole of the site between Rice Avenue and Del Norte Boulevard will connect to the 18″ Rice Avenue system.

Initial sewer profiles indicated that such a connection scheme would be impracticable due to inadequate pipe cover in the easterly section of the project adjacent to Del Norte Boulevard. The plan proposes that the site be connected to the 21″ Del Norte System. Existing and projected future sewage flow model data for the Del Norte Boulevard systems used for the DWCSMP were obtained from the City for use in the project impact analysis. The previous allowance for the project area was subtracted from the model for both systems, and subsequently re-input using worst-case discharge rates and peaking factors with the revised sewer routing scheme. Under these conditions, the Del Norte Boulevard sewer system was determined to be adequate to accommodate the project's sewage discharges at the proposed points of connection.

STORM DRAINAGE PLAN

The Storm Drainage Plan for the site proposes a system of storm drain lines to be constructed both within the streets and easements in accordance with the anticipated drainage patterns of the developed site. The project site drains generally to the southeast in both the existing and ultimate drainage conditions to a connection with the existing Sturgis Road drain at the southeast corner of the site. Storm water discharges from the site are consistent with those envisioned by the City of Oxnard Master Plan of Drainage.

The proposed Storm Drainage Plan anticipates the construction of storm water detention facilities equipped with outlet control structures to effectively limit storm water discharges from the site to 1 cfs/acre. Discharges less that 1 cfs/acre shall pass through the proposed storm drain system and discharge to the northerly terminus of the Sturgis Road drain. Discharges in excess of 1cfs/acre, or the difference between a 10-year and 100-year storm as such flows develop will be detained on site. Proposed project storm water detention facilities shall be located within the site to the limit developed flows to pre-development levels. All new development and redevelopment projects will be required to implement hydrolic control measures to prevent accelerated downstream erosion.

The proposed on-site portions of the project's storm drain system shall comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) as described in the City's permit as well as the provisions of the Ventura Country-wide Storm Water Quality Urban Impact Mitigation Plan (SQUIMP) where applicable. Detention, infiltration, flow-based devices or other equally effective methods shall be registered into the project's storm drain facilities to effectively treat all storm drainage from impervious portions of the site prior to release.

The on-site storm water conveyance system will be consistent with both the City of Oxnard Master Plan of Drainage and the Northeast Industrial Assessment District (NIAD) plans which considered future drainage configurations for the property. Layout and design of storm drain mains and detention facilities account for the limitations of the existing box culverts constructed under Del Norte Boulevard at two locations as part of Phase 4 of the NIAD improvements. The existing trapezoidal channel which is the point of connection for the project (the Sturgis Road drain) is anticipated to be extended approximately to the north property line of the project along its current alignment. The existing earthen channel would be replaced by a concrete trapezoidal channel sized per the Master Plan, and the existing off-site earthen channel running along portions of the northern property boundary would be maintained.

Off-site drainage is contributed to the northerly section of the site from the adjacent southbound portion of the Route 101 interchange. Four box culverts transfer drainage from the 40 acres to the north of the project through the Route 101/Caltrans right of way. This drainage, together with contributions from permeable and impermeable portions of Route 101, is intercepted by the off-site earthen channel just north of the project, which in turn crosses on to the project site to join the proposed trapezoidal channel extension.

STORM WATER QUALITY

The City of Oxnard requires all new development within the city to incorporate storm water quality control measures into the proposed improvement plans as part of the County Storm Water Quality Urban Impact Mitigation Management Plan (SQUIMP). Drainage from the proposed project development is subject to this requirement. To comply with the local development requirements, each site as it develops, will be responsible for treating storm water runoff either through bio-filtration, infiltration, detention filtration, or any other method allowed by the City of Oxnard. These improvements shall also meet the standards contained in the Ventura County Technical Guidance Manual for Storm Water Quality Control Measures.

For the backbone street system, storm water quality can be achieved through various means and methods, including; bio-filtration within the street right-of-way, proprietary devices (i.e. storm filter basins), and / or a downstream treatment basin.

FIRE STATION

A new Fire Station site, consisting of 1.5 acres, is proposed within Planning Ares 2 or 3. The Fire Station will front on the north/south arterial, (Street "B"), between Planning Areas 2 & 3, approximately equal distance between the Gonzales Road extension to the north and the proposed new southern east/west arterial, (Street "A"), to the south. Final design and location are subject to review and approval by the Oxnard Fire Department for inclusion on the Tentative Tract Map.

WATER SYSTEMS
EXHIBIT 4.26

LEGEND

6 — TRIBUTARY AREA DESIGNATION
PLANNED LAND USE ACREAGE
I=INDUSTRIAL
C=COMMERCIAL
R=RESIDENTIAL
P=PARK
WATER DEMAND (IN MILLION GALLONS PER DAY)

TRIBUTARY AREA BOUNDARY

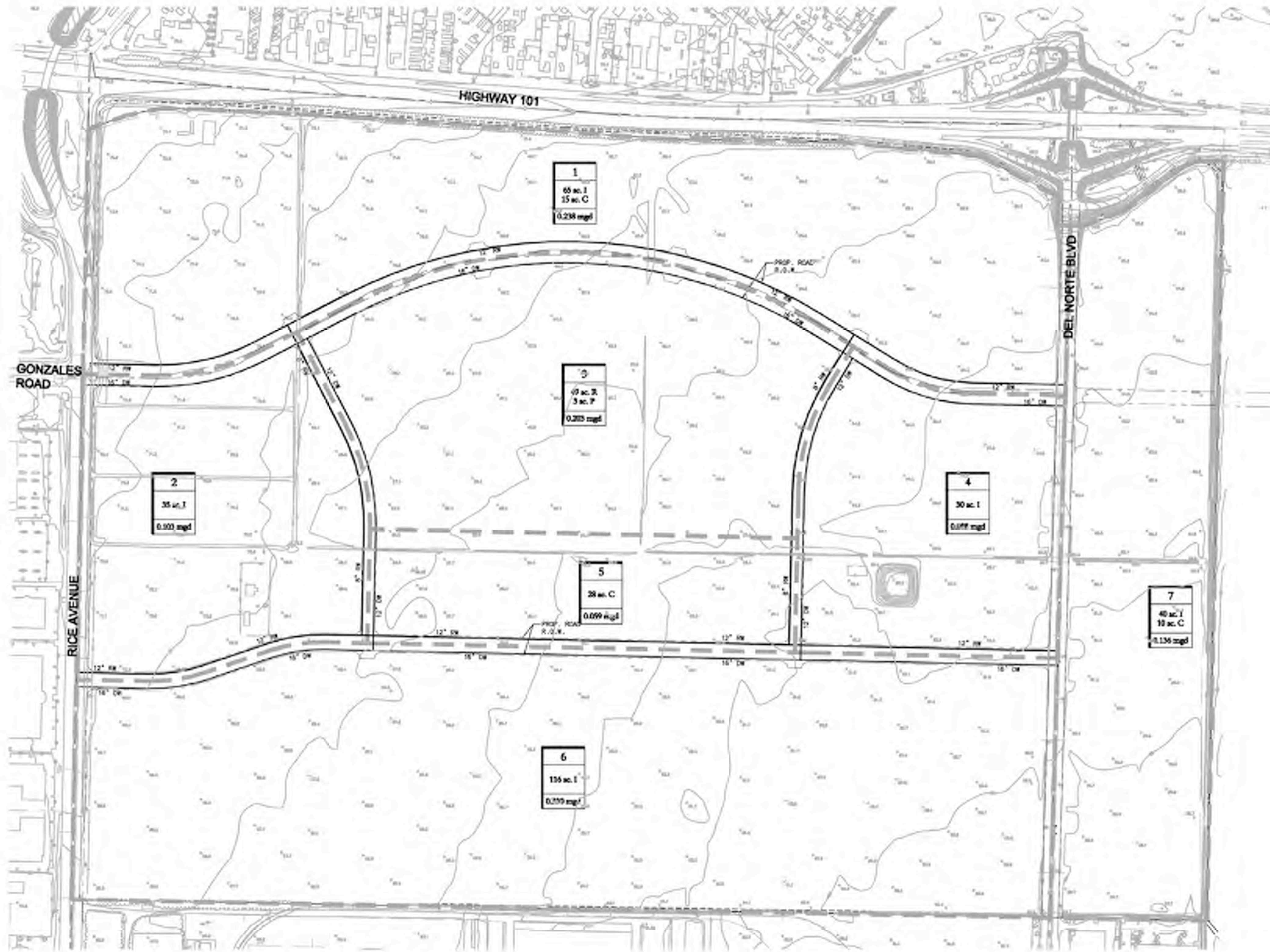
16" PVC — PROPOSED WATER LINE

EXIST. 16" PVC — EXISTING WATER LINE

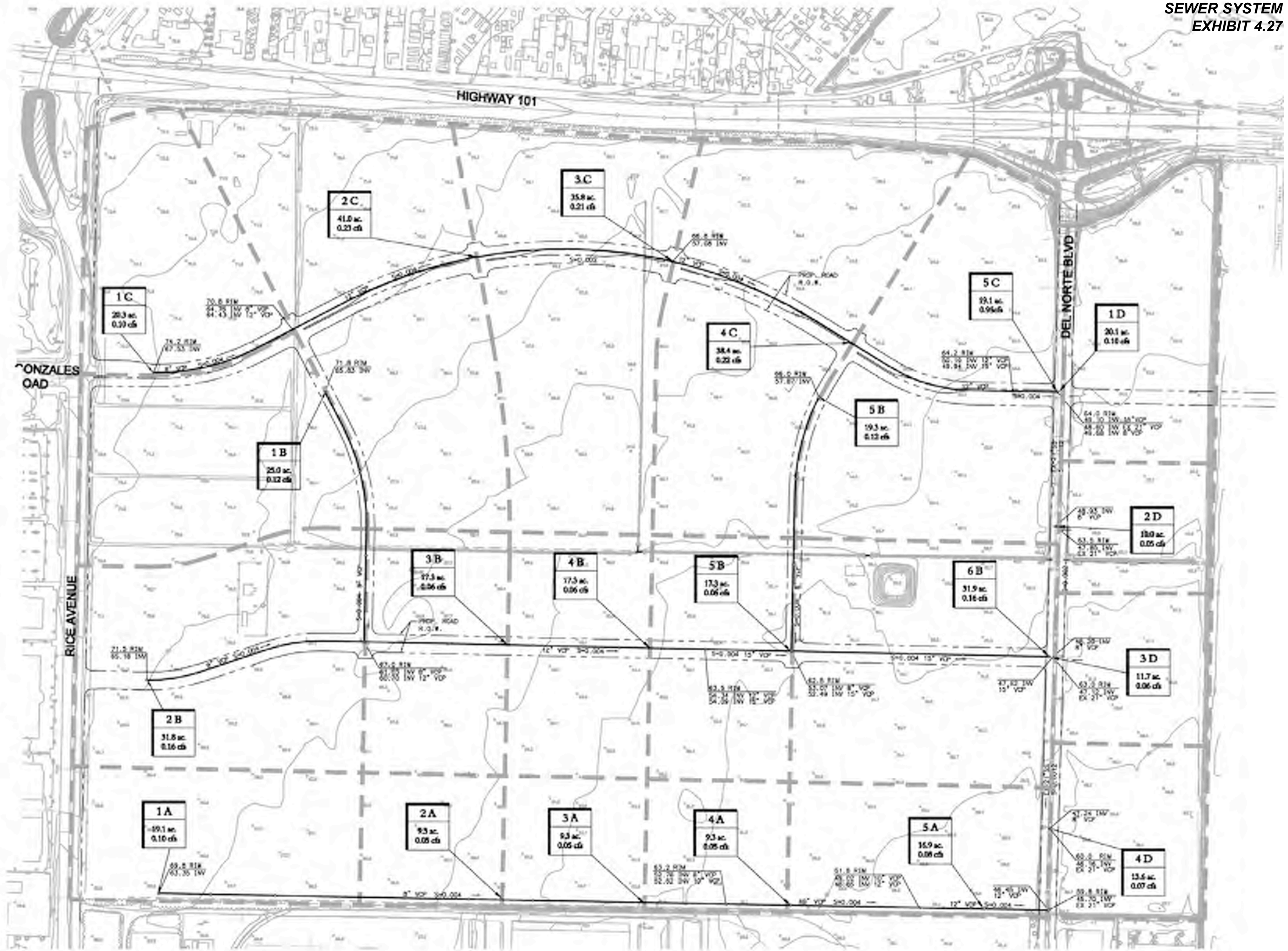
SAKIOKA FARMS,
CITY OF OXNARD

CONCEPTUAL MASTER PLAN
WATER SYSTEMS

RBF CONSULTING



SEWER SYSTEM
EXHIBIT 4.27



LEGEND

1 C	TRIBUTARY AREA NUMBER
12.9 ac.	SIZE OF TRIBUTARY AREA IN ACRES
0.20 cfs	CUMULATIVE SEWAGE FLOW
	TRIBUTARY AREA BOUNDARY
65.5 RIM / 61.8 INV.	PROPOSED SEWER WITH MANHOLE AND ELEVATIONS
EX. M.H. #21 / 61.8 INV. / 61.8 INV.	EXISTING SEWER WITH MANHOLE AND ELEVATIONS
	DIRECTION OF FLOW

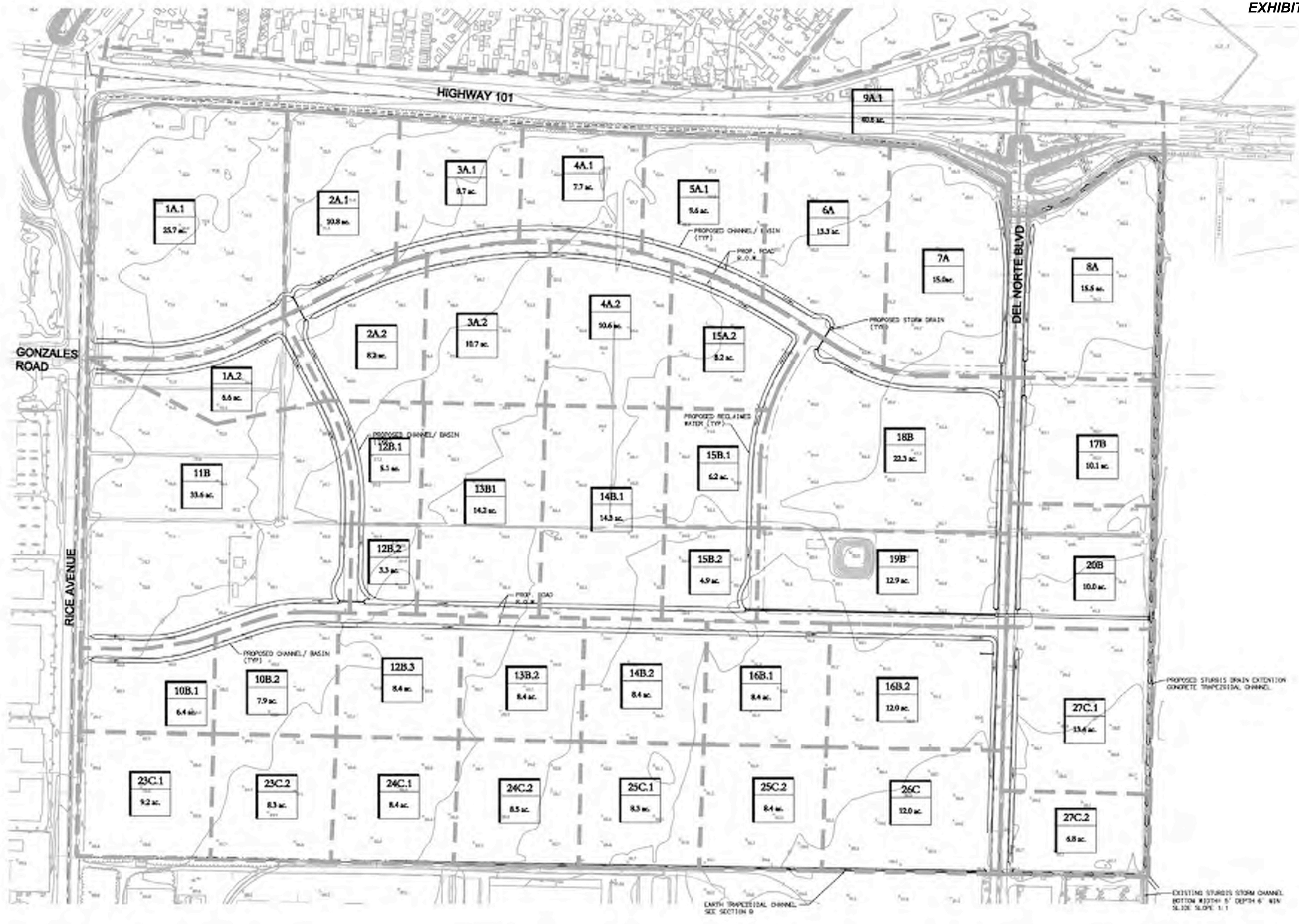
SAKIOKA FARMS,
CITY OF OXNARD

CONCEPTUAL MASTER PLAN
SEWER SYSTEM

RBF CONSULTING

PREFERRED STORMDRAIN PLAN
EXHIBIT 4.28

ALTERNATE STORMDRAIN PLAN
EXHIBIT 4.29



LEGEND

HYDROLOGIC SUB-AREA — 2 E — AREA NUMBER — 20.06 ac. — AREA

TRIBUTARY AREA BOUNDARY

SD — STORM DRAIN

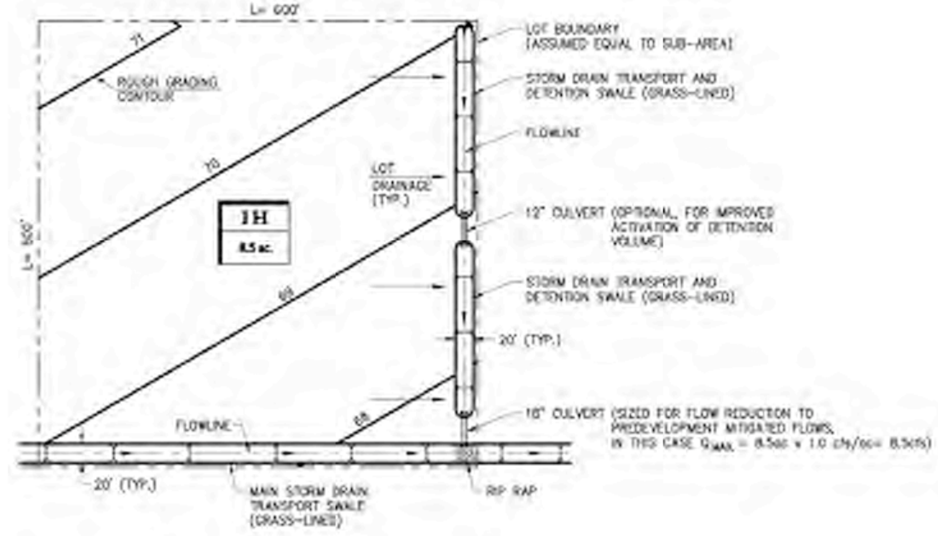
CHANNEL/ BASIN

SAKIOKA FARMS,
CITY OF OXNARD

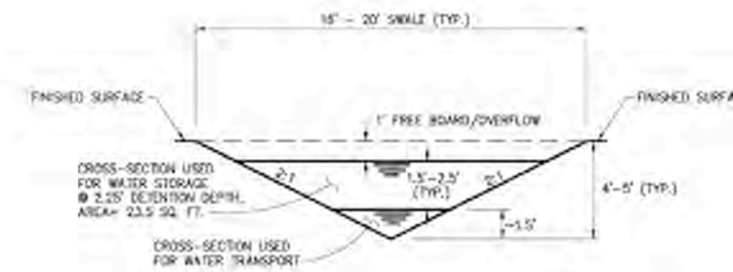
CONCEPTUAL MASTER PLAN
ALTERNATE STORMDRAIN PLAN

RBF CONSULTING

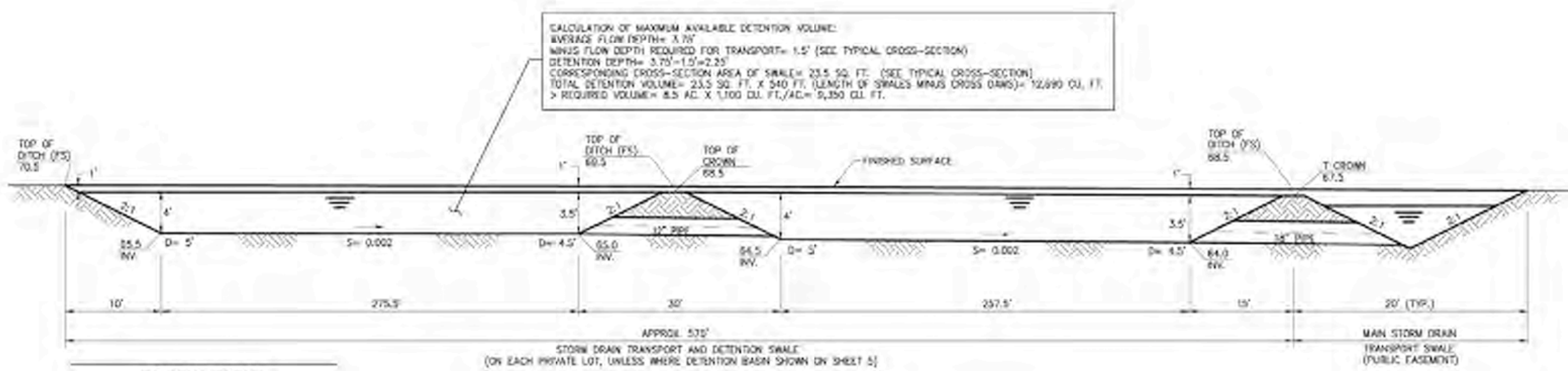
ALTERNATE STORM DRAIN PLAN
EXHIBIT 4.30



TYPICAL LOT DRAINAGE
PLAN VIEW
NTS



TYPICAL CROSS SECTION
STORM DRAIN AND DETENTION SWALE
NTS



TYPICAL
PROFILE STORM DRAIN TRANSPORT
AND DETENTION SWALE
NTS

SAKIOKA FARMS, CITY OF OXNARD

CONCEPTUAL MASTER PLAN
ALTERNATE STORMDRAIN PLAN

RBF CONSULTING

GRADING PLAN
EXHIBIT 4.31

NOTES:

1. *THE PROPOSED ROAD ELEVATIONS ARE FINISHED SURFACE ELEVATIONS, WHEREAS THE CONTOURS DEPICT ROUGHT GRADES.*
2. *SOME OF THE ROAD ELEVATIONS ARE THEORETICAL, HOWEVER, AS THE MINIMUM ℄ GRADIENT IS 0.4%. IN CASES WHERE THE SHOWN ℄ GRADES ARE LESS THAN 0.4% THE ACTUAL ELEVATIONS WILL REFLECT A SAW TOOTH PATTERN OF THE ℄ GOING UP AND DOWN TO PROVIDE THE MINIMUM GRADIENT. FOR THE PURPOSE OF THIS STUDY THE ACTUAL ELEVATIONS ARE NOT SHOWN.*

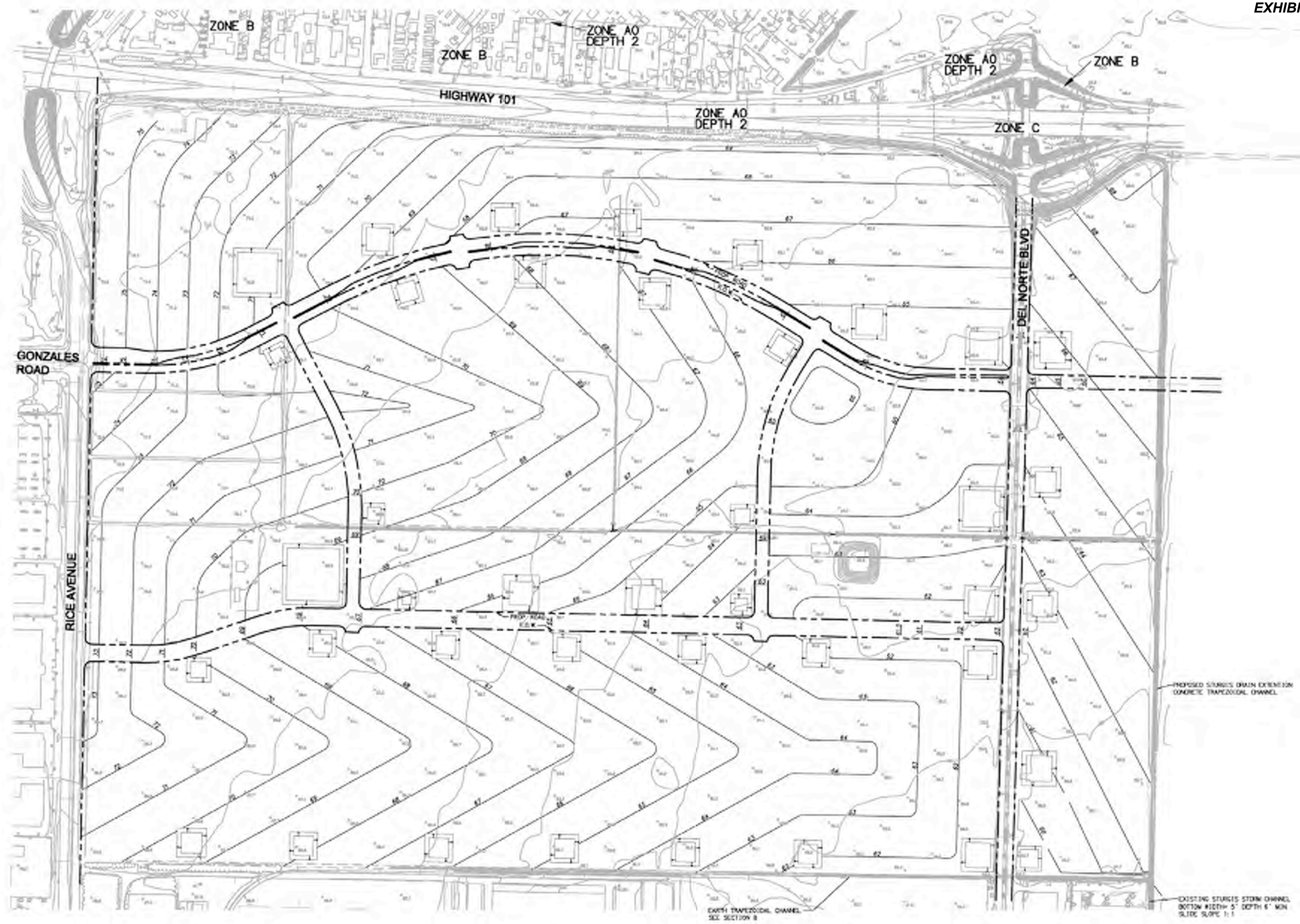
LEGEND

65	PROPOSED CONTOUR LINE
66.6 FS	PROPOSED FINISHED SURFACE
0.6%	PROPOSED SLOPE
	FLOOD ZONE LIMITS
	EXISTING ℄ ROAD AND R.O.W.
	PROPOSED ℄ ROAD AND R.O.W.

SAKIOKA FARMS, CITY OF OXNARD

CONCEPTUAL MASTER PLAN GRADING

RBF CONSULTING



UTILITIES

There are several public utility service providers in the Sakioka Farms Business Park area.

Electricity

Electrical service to the area is provided by the Southern California Edison Company.

Natural Gas

Natural gas service in the Specific Plan area is provided by The Gas Company.

Telephone

Telephone service in the Specific Plan area is provided by GTE of California.

Cable Television

Cable television service within Oxnard is provided by Jones Intercable and Adelphia. Developers should coordinate with the cable company for the installation of new service.

Solid Waste Disposal

The City of Oxnard currently provides solid waste disposal services for the area. No solid waste disposal facilities are planned to be located in the Specific Plan area.

4.7 AFFORDABLE HOUSING

Affordable housing shall be addressed within each residential project. Ten percent of the total units within each project shall be set aside for qualified low and moderate income households. Low income households are between 60 and 80 percent of the Ventura County median income and moderate is 80 to 120 percent. An additional ten percent of the total units shall be made available as workforce housing for households with incomes between 120 and 150 percent of the County's median income.

All residential projects shall provide provisions for childcare facilities either on-site or through participation in an off-site facility within the "Town Center." Childcare facilities shall be designed in compliance with all State of California regulations and all City of Oxnard regulations in effect at the time of project request.

An affordable housing Agreement and Childcare Facilities Plan shall be prepared concurrent with all requests for residential development and subject to a Development Design Review approval by the Planning Manager.

PHASING MATRIX	PLANNING AREAS						
	1	2	3	4	5	6	7
2010	25%	25%	25%	25%	33%		
2015	25%	25%	50%	25%	33%	25%	
2020	25%	25%	25%	25%	33%	25%	25%
2025	25%	25%		25%		50%	75%

PHASING MATRIX
EXHIBIT 4.32

4.8 PHASING PLAN

The Sakioka Farms Business Park will be developed in various phases over the next several years. In order to accommodate the anticipated intermittent development patterns, all required circulation, infrastructure and community improvements to accommodate each new development of the Specific Plan shall be completed prior to, or simultaneously with, individual projects. See Exhibit 4.12 for the Conceptual Street Phasing Plan.

The Specific Plan Planning Areas may be further divided into Subareas to better reflect the anticipated development pattern and infrastructure improvement phasing. The Phasing Plan presents a schedule of project development based on an incremental installation of infrastructure improvements.

The Phasing Plan recognizes that the project area is presently vacant with few infrastructure improvements. The development phasing schedule has been prepared to provide that adequate public facilities and services will be available for each new project.

The first phase of the infrastructure improvements will extend, install and upgrade the utilities necessary to provide for new projects in the affected Planning Area(s). Total first phase of infrastructure improvements are anticipated to be completed by the year 2010.

5

SECTION FIVE

5.0 PROJECT AREA CHARACTER

The Design Guidelines establish the character and style for the development of a business park complex with buildings and streetscapes that have a distinct visual identity. The Guidelines accommodate individual development identities and promote interrelationships between complementary land uses and community features. The major elements of the Design Guidelines include: site planning, architecture, streetscape, landscaping, and signage. All development proposals within the Specific Plan area shall conform to the Design Guidelines and shall incorporate appropriate theme elements.

The Design Guidelines are to be used by the private developer, the project's Architectural Review Committee and the City of Oxnard as part of the plan review process. The Design Guidelines are general and may be interpreted with some flexibility in their application to individual projects. Variations may be considered for projects with special design characteristics that still meet the objectives of the Guidelines. The Design Guidelines shall be used to promote a high level of design quality while encouraging creativity on the part of individual project designers.

5.1 SITE PLANNING GUIDELINES

The Specific Plan anticipates a combination of industrial, office, residential and commercial buildings, each varying in parcel size, building height,and intensity of development. The Design Guidelines section provides the measure by which basic concepts for coordinated site planning can be realized. Care must be taken in the creation of each parcel in the project area to provide convenient access, and cluster common activities.

Effective site planning techniques will establish a strong outline and framework for guiding future individual development projects, and create a unique high quality business park. The successful integration of effective site planning techniques, with the basic design elements on individual projects, will enhance the visual experience in the Specific Plan area, and promote a true sense of place.

To facilitate the development of the Sakioka Farms Business Park into a unique resource for the community, the following site planning policies have been complied for the Specific Plan.

5.1.0 DESIGN POLICIES

5.1.1 Site layout for individual projects shall be designed to route people and vehicles through the site in a clear, identifiable, efficient and effective manner.

5.1.2 Building orientation should reflect an understanding and response to the sun, shade and wind conditions along with views into and from the project. Buildings shall be designed compatible with other approved projects in the area. Building entryways, administration areas and other window areas shall front on to any adjacent street. Relationship to adjacent sites shall be considered concurrent with individual project layout. Projects shall be off-set to minimize views directly into opposing buildings.

5.1.3 Access to individual projects shall be compatible and enhance adjacent activities. Vehicle circulation shall be provided with an adequate turning radius and roadway widths for all drive aisles and fire lanes consistent with the adopted City standard. Additional fire and emergency considerations shall be addressed on a project by project basis, subject to review and approval by the City.

Entry drives shall be of a uniform size and design throughout the project area. Main and secondary entrances shall be twenty-five (25) feet wide. Shared driveways and entry locations may be proposed. Driveways and entrances on opposite sides of a street shall align. Any proposed offset of driveways on opposite sides of a street shall be subject to review and approval by the City.

5.1.4 Project functions, activities and elements should be logically located, so that the business operates efficiently. The project should function well for people who work, shop and visit the area.

5.1.5 Transitional areas between the street and building should provide adequate landscaping, walkways and parking to create a visually pleasing and functional buffer.

5.1.6 Parking areas for individual projects shall be provided on-site in a manner that is convenient and compatible with the layout and design of the overall project area. In order to create larger building setback, surface parking facilities may be located between the main building front façade and adjacent street. Parking areas should be screened from public ways and divided with landscaping, walls, fences, berms and other elements.

5.1.7 Trash, loading and storage areas including truck access shall be in the rear and/or side portions of the lot, and screened from the street. All truck maneuvers (i.e. backing into truck loading areas) shall be performed within the project site. Service areas should be conveniently located and big enough to adequately function.

Trash enclosures for refuse containers and equipment shall be easily accessed by service vehicles and screened from public view. Refuse containers and equipment shall be located within a building's façade or within a screened enclosure, and reflect the architectural style of the main building, including the use of similar materials. Landscaping shall be provided on each side of all screened enclosures within parking areas.

Loading areas shall be designed to include attractive and durable materials, and conform with other guidelines pertaining to building features, materials and finishes. Fixed hardware for rolling doors shall be located on the inside of buildings to minimize visual clutter.

Loading dock areas shall be screened with a solid decorative wall or berm. Where views of these features are possible from streets or connecting walkways, they shall be screened through the use of walls, trellises, tall landscaping, or equivalent features. Loading docks shall be provided at a lower grade, where practical, to minimize views from the street and the need for tall walls or fencing.

Outdoor storage shall not exceed ten (10) feet in height. All outdoor storage areas must be screened consistent with the loading area provisions. The wall height shall be sufficient to screen the loading areas and vehicles and trailers from view of adjacent properties and streets and shall not exceed ten (10) feet in height.

Satellite structures (detached) can provide an effective variety in building layout and design; provided it can also be an efficient solution for company operations. Satellite structures must be designed to be compatible with the main structure and of the same materials.

5.1.8 Exterior Lighting shall be located and designed to minimize direct glare beyond the parking lot or service area. Light standards under thirty-five (35) feet in height are recommended throughout a project area and shall illuminate all sidewalks and connecting walk-ways. All light standards shall be consistent with respect to design, materials, color and color of light, and with the overall architectural style of the project. Illumination of buildings and landscaping can be indirect, to create a strong positive image. Concealing light fixtures within buildings and landscaping can highlight attractive features. Use of lighting is especially recommended at entries, plazas, parking lots, and other areas where evening activity is expected.

All proposed lighting shall comply with the City's Outdoor Lighting Code & Guidelines and Title 24, Part 6 of the California Code of Regulations: California's Energy Efficiency Standards for Residential and Nonresidential Buildings. All exterior lighting shall be approved by the Police Department prior to issuance of a permit. Exterior lighting in public areas shall be independent from tenant control.

5.1.9 Handicap accessibility shall be incorporated into all individual project plans and must reflect sensitivity to the needs and requirements of handicapped employees and visitors. The California Accessibility Code (Title 24) requirements shall be considered as a minimum set of guidelines. All accessways and parking layouts shall be handicap accessible and convenient.

5.1.10 Security provisions, including lighting, building entrance visibility and drive locations, shall be carefully considered and subject to review and approval by the City.

5.1.11 Vehicle control gatesshall be operable by City approved radio equipment.

5.2 ARCHITECTURAL GUIDELINES

The Architectural Guidelines are intended to establish a compatible character, style and quality for all development projects within the Sakioka Farms Business Park. This compatibility of character is not intended to discourage individual innovation and creativity, but to simply provide a framework within which an overall sense of community and place will be reinforced.

The architectural theme shall reflect a contemporary research and development complex. Each project shall be designed and sighted with sensitive regard to climate, context, and proper use of materials and form in an honest expression of function as well as aesthetics. Building design shall comply with the following architectural policies.

5.2.0 ARCHITECTURAL POLICIES

5.2.1 Unifying and harmonious design elements shall be incorporated into all projects. New elements should be compatible with existing and existing elements shall be updated to blend with new proposals. A unifying theme or common denominator should be used in the various components of design. This basic theme will serve as a guide for design details, choosing elements and selecting materials.

Building designs shall reflect an industrial/business office park theme and include a recognizable base and top. The base shall visually relate to the proportion and scale of the building. Contrasting materials, textures and color are encouraged on the base of buildings that face streets or connecting walkways, especially adjacent to major entries. Building rooflines are encouraged to take advantage of the visual prominence of a building's silhouette, office and entry area may include: cornice treatments, roof overhangs and brackets, richly textured materials, and/or different color of materials.

5.2.2 Building scale, location, massing and orientation on the individual sites, shall provide a balance in form and composition. Building components should be appropriate in scale for the size and style of the building and its relation to the size of the lot. Building design shall avoid a single dominant mass. Substantial variations in massing should include changes in height and horizontal plane. The horizontal mass of the building elevations may be broken up with external treatment detached from the main building structure. Such massing breaks include: columns, colonnades, trellises, wall segment textures, materials, pattern or color and enhanced landscape treatment. The extent of massing breaks and building projections shall relate visually to the overall scale of the building.

5.2.3 Building proportions and inner relationships shall be designed with consideration to adjacent projects and activities. Special attention shall be give to maintain the highest quality of design, harmony and compatibility, especially between new proposals and existing activities.

5.2.4 Rhythm and balance in building design can be obtained through site layout and clustering of activities. Building articulation and fenestration are encouraged to avoid large flat building walls. Building elevations can also be enhanced with second story areas and/or vaulted areas establishing a variety in building volumes and composition.

Building walls shall avoid blank areas between massing breaks, especially along facades immediately visible from adjacent streets or walkways. This can be accomplished with a change in surface texture, revealed pilaster, a change in building planes, a vertical variation of the roof line, window placement and/or intensified accent landscaping.

Building entries shall be visible from public streets and incorporate interesting and attractive features. The entry feature treatment shall be an integral part of the building design, a monolithic appearance shall be avoided.

Building corner situations shall incorporate special architectural treatment on elevations, visible from a public street. Any special façade treatment shall be continued around the building corner to a logical point of terminus.

5.2.5 Building materials chosen should be consistent with the architectural style and theme for the area, and may be a combination of concrete, metal, glass and/or other contemporary composites. Concrete tilt-up construction can be an integral component of building design.

5.2.6 Building finishes and colors shall be chosen from a palette of subtle tones (white, off white, light gray and beige); projects are encouraged to use color accents. Glazing shall be tinted with high-performance materials (glazing colors, transparency and reflectiveness shall be limited to green, blue and light gray shades. Clear or lightly tinted glazing is also acceptable). The selected finishes should respect the architectural style of the building and surrounding development.

5.2.7 Pedestrian sensitivity needs to be carefully considered when designing street level activities. Building design should made pedestrians feel comfortable when walking by. Pedestrian scale amenities should be incorporated within the transitional areas of the project.

Building entries shall be obvious. A clearly defined, primary pedestrian entry, with an enhanced hardscape foreground, is required for each building. Building entries shall be emphasized by design features such as overhangs, recesses, walls and roof forms that are integrated into the overall building design. Greater height can be used to highlight and accentuate entries. Building entrances should be easily accessible from pedestrian walkways which connect the building entrance and the public sidewalk.

5.2.8 Mechanical equipment, shall be screened from view of adjacent property. Mechanical equipment shall not be exposed on the wall surface or roof of a building. Screening material and color shall be compatible with the overall building design and colors. Backflow devices, electrical transformers and other mechanical equipment shall be screened from public view or undergrounded, with the exception of public safety features.
Mechanical equipment such as ventilation devices, louvers, exposed flashing tanks, overhead doors, and other service doors shall be finished consistent with the color scheme of the building. Cyclone blowers shall be screened and located below the fascia or roofline of a building. These devices shall be located at the rear and painted to match the color scheme of the building.

Mechanical equipment, located adjacent to but detached from the main building, shall be screened with compatible building and/or landscape materials.

5.2.9 Sustainable green building design, construction and operation of developments within the Specific Plan are encouraged. Considerations shall include: increasing the efficiency with which buildings and their sites use energy, water and materials, as well as reducing building impacts on human health and the environment through siting, design, construction, operation, maintenance and waste removal through the complete building life cycle. Developments are encouraged to utilize established and evolving green building performance-oriented rating systems such as the U.S. Green Building Council's LEED portfolio, Green Globes, or similar state, federal and trade organization guidelines during project design, construction and operation.

Solar collection systems are encouraged and "solar farming" is a permitted activity within the Specific Plan.

5.2.10 Public art shall be included as part of all large projects within the Specific Plan area, smaller projects may contribute to the establishment and maintenance of a public art program within the common areas. The proposed art feature shall be located in an area which can be easily viewed and accessed by the public. The public art requirement may be satisfied in a number of ways, the City's, Cultural Arts Commission has established a formal approval process.

5.3 LANDSCAPE GUIDELINES

These Landscape Guidelines are intended to supplement the City of Oxnard Landscape Standards and the City of Oxnard Parking Ordinances. They are intended to provide uniformity to the site and establish a "Sense of Place" with both aesthetic and functional considerations. The Landscape Guidelines establish the design and visual qualities for individual development in the project areas. In cases where these guidelines differ from those City standards or ordinances, these guidelines shall govern. In cases where these guidelines are silent on issues, the City of Oxnard's Landscape Standards shall govern.The landscape treatment for buildings and public right-of-ways should be designed with a compatible interpretation of the guidelines.

The Landscape Guidelines accommodate individual development identities and promote inter-relationships between complementary land uses and community features. All development proposals within the Master Plan area shall conform to the Landscape Guidelines and shall incorporate appropriate theme elements. The Landscape Guidelines create an overall theme, however, alternative approaches may be considered which preserve the intent of the guidelines while proposing modifications to the regulations.

The Landscape Guidelines are to be used by the private developer, the project's Architectural Review Committee and the City of Oxnard as part of the plan review process. The Landscape Guidelines are general and may be interpreted with some flexibility in their application to individual projects. Variations may be considered for projects with special design characteristics that still meet the objectives of the guidelines. The Landscape Guidelines shall be used to promote a high level of design quality while encouraging creativity on the part of individual project designers.

The Landscape Guidelines propose a continuation of the landscape and streetscape patterns currently surrounding the project area. The specific project establishes a "California" theme, which includes and eclectic mix of indigenous plant and local materials which reflect the historical and cultural background of the area. These include perimeter landscaping, large landscape setbacks along both interior and perimeter streets, pedestrian walkways which unify the site, and intersection treatments which create a "park-like" atmosphere and assist in visitor way-finding.

To develop a consistent streetscape design, all streets shall be improved with landscape as noted in the enclosed sketches. Individual developer parcel landscaping will be developed in a similar and complimentary manner as outlined in the following sections. Plant materials shall be drawn from the projects plant materials palette. The plant materials palette includes turf, shrubs, ground cover and trees which are compatible with the City's overall landscaping requirements and consistent with the existing adjacent streetscape.

5.3.0 LANDSCAPE POLICIES

5.3.1 Streetscapes/frontages, public areas, and development sites landscape design shall respect and compliment the natural and existing site features of the surrounding area. The landscaping should be in proportion with the whole development and integrated with the building design to enhance the appearance of the project, and soften the effect of buildings and hardscape. The landscaping should be a combination of trees, shrubs, grasses, and ground cover plants; vines should be considered on exposed perimeter, screen and trash enclosure walls. A project's landscaping should blend with the adjacent property when appropriate. Turf shall be kept to a minimum.

A minimum of ten (10) percent of the net site area shall be landscaped. A maximum of five (5) percent of the minimum required landscape area may be improved with hardscape (entries, plazas, and walkways).

5.3.2 Public Right of Ways/Streetscapes:

- **Gonzales Road;** setbacks shall provide minimal turf, except between the sidewalk and curb when landscape parkways are present. Street trees shall be formal double-row plantings of Tipuana trees. Informal drifts of shrubs and ground-cover/indigenous grasses shall extend between the back of sidewalk and the property line. Informal plantings of palm trees and shrub/tree species shall also be planted continuousy in the 18′ setback.

  The medians shall have single row groupings of Mexican fan palms and flowering trees. Ground cover / grasses will create a continuous base.

- **STREET "A",** the East-West Connector Street south of Gonzales Road, will have 16′ landscape setback, a 6′ sidewalk and an 8′ curb-adjacent parkway along both sides of the street. A 16′ center median separates two 30′ street sections. The median and parkway are planted with groupings of Washingtonian Palms and Trastinias. with a continuous grass / ground cover base. The 16′ landscape setback provides a background planting of informal groups of Washingtonian palms and a mix of vertical screen trees and small flowering trees. Informal drifts of shrub and grasses / ground cover will stretch along the entire Street "A" setback.. The median will be mounded, with a maxi mum height of no more than 12″ from the top of curb and will have an 18″ catwalk on each side.

- **Street "B", "C" and Gonzales Road Extension** have an 8′ curb adjacent parkway, a 5′ sidewalk and a 10′ landscape setback. The parkway planting design features informal ver tical and shade tree groupings with a grass / groundcover base. The 10′ setback is mound ed and continues the parkway planting design of informal vertical and shade tree groupings. At their base are continuous informal drifts of shrubs, and grasses / groundcover.

- **Rice Avenue's** eastern street frontage has a 60′ Caltrans setback and a 30′ landscape set back that is consistant with the City of Oxnard's Memorandum of Understanding with Caltrans. The curb adjacent parkway and the first 30′of the setback will provide a double row of Magnolia grandiflora trees at 40′ on center with a background of informal Washingtonian palms and a mix of vertical screen trees and smaller flowering trees.

Informal drifts of shrubs and grasses / groundcover will stretch along the entire Rice Avenue frontage. The Rice Avenue sidewalk is proposed to meander similar to the existing improvements to the south.

- **Del Norte Boulevard;** the setback shall have a single formal row of Magnolia grandiflora trees with an informal background planting of palmsand shrub/tree species. Ground plane plantings shall consist of shrub and ground cover/ grasses in informal drifts between the back of sidewalk and the property line.
- **Rice Avenue entry treatments;** the entries at Gonzales Road and Street "A" shall have entry planting treatments which identify and enhance the project arrival experience. These treatments shall consist of a linear, for mal double-row planting of hybrid Mexican fan palms with formal linear plantings of flowering shrubs and groundcovers/grasses.
- **Del Norte Boulevard entry treatments;** the entries off of Del Norte Boulevard shall be a formal planting of hybrid Mexican fan palms and a formal, linear planting of shrubs and groundcovers/grasses.
- **All Landscape medians,** located in the roadways adjacent to the project area, shall be designed and constructed per City of Oxnard standards and shall be maintained by the City.

5.3.3 Perimeter Landscape planting along the project edges shall provide a consistent treatment using a limited number of plant materials, and shall meander in informal groupings around the site. Perimeter landscaping shall preserve or construct, a minimum ten (10) foot wide landscape buffer between off-site properties/ improvements and private project improvements, including buildings, walls, parking areas, etc. The landscape buffer shall be adjacent to the individual projects landscaping and off-site projects

Tree planting in these areas shall include a minimum of one (1) twenty-four (24) inch box tree for each twenty (20) feet of lineal frontage. Tree planting may include a combination with thirty-six (36) inch or larger box trees. Shrub plantings shall provide mid-height (5'-7') screening of off-site views.

5.3.4 Each Individual parcel shall provide a level of landscape and design in keeping with the overall master plan intent and planting theme. Private landscape improvements and adjacent right-of-way landscape improvements shall be constructed by individual project developers. On site landscape improvements shall be maintained by each adjacent / abutting property owner, consistent with the overall landscape theme.

A minimum of ten (10) percent of the net site area shall be landscaped. A maximum of five (5) percent of the minimum required landscape area may be improved with hardscape (entries, plazas, and walkways). Plant selections should consider the function of the material -i.e., shade, wind break, ornamental, groundcover, accent, structural aesthetic and layering or materials to achieve a cohesive design.

5.3.5 Parking lots shall be designed and landscaped in accordance with the City's Parking Regulations and Standards for Parking Lot Design. Perimeter parking lots adjacent to arterial streets, shall be provided with a continuous visual screen 36″ high at instillation. Berming in these areas is encouraged and shall be a maximum of 30″ high and have natural continuous contoured appearance. Shrub hedges shall be planted along the perimeter of all parking areas. Hedges shall be trimmed in a formal manner and shall be maintained between 36″ and 42″ in height. Where cars overhang the curbs, ground cover planting shall be required at a minimum width of two (2) feet (inside dimension). The overhang area shall not be considered as part of the required minimum percentage of on-site landscaping. A 6" concrete curb/mowstrip is required to separate all on-site private landscape from association/project streetscapes. Where cars overhang a sidewalk, the sidewalk width shall be a minimum of 7′.

Parking lots shall be planted at a rate of one (1) tree for every six (6) parking stalls for parking areas fronting public streets. For parking lots at the rear of the parcel or not visible from the street, the rate shall be one(1) tree for every ten (10) parking stalls to accommodate industrial uses. Trees for rear parking areas may be planted at site perimeters when large open turnaround or truck areas are required. Parking lot trees shall be minimum twenty-four (24) inch box trees. All tree planting areas shall be a minimum net width of five (5) feet and provide no less than 25 square feet of planting area. All finger landscape areas shall have a minimum width of 9 feet. Rear parking lot perimeter planting is to include a minimum of one tree every 40′. Foundation plantings at the building edges consisting of hedges or medium height shrubs are encouraged where possible.

Parking lot treatments shall be consistent and contribute to the project landscaping unity. Parking lots shall be planted with trees in such a manner as to provide maximum shade. An alternative which clusters or groups parking lot trees adjacent to the building may be considered. Larger trees may also be substituted for a number of smaller trees, subject to review and approval by the City.

5.3.6 Entry drives shall be designed to provide entering and exiting with adequate views of approaching pedestrians and vehicles. Entry drives shall provide convenient access to parking lots at various site locations. In addition to street trees and on-site landscaping, each entry shall be designated by ground cover and a minimum of two thirty-six (36) inch box specimen trees, on both sides of the entry. These trees shall be located behind setbacks or a minimum of ten (10) feet back from the face of the street, whichever is greater.

5.3.7 Pedestrian walkway systems within private parcels shall be designed to unify the entire project area and provide pedestrian site access to buildings, parking and site activity areas. Pedestrian walkways shall be provided on each parcel and within the adjacent public right-of-way. Walks shall be a minimum of five (5) feet in width, except those walkways directly adjacent to parking areas with overhangs. In these areas a minimum walk width shall be seven (7) feet. Pedestrian walkway improvements shall be installed concurrent with the landscape improvements.

5.3.8 Entry plaza areas and courtyards shall be provided as focal points and for employee use. These areas shall be an integral part of the building architecture and be connected by a walkway system to the public pedestrian walkways. They shall include such amenities as special paving, walls, gateways, seating areas, shade structures, fountains, and specimen plantings. Hardscape is excluded from the 10% landscape requirement.

5.3.9 Walls and Screening project area walls screening and fencing along the perimeter arterials shall be compatible with adjacent projects and provide project identity, privacy and noise control. Individual wall treatments shall reflect the architectural character of the adjacent main buildings and be compatible with other buildings throughout the project area.

5.3.10 Trash enclosure areas shall be provided with walled enclosures a minimum of 6′ high and shall include tree and shrub planting screens to soften the enclosure. Roofing of trash enclosures with architectural treatment complimentary to the building design is encouraged. Mechanical equipment and transformer areas shall have landscape screening and/or low-level screen walls. Valves, meters, back flow preventors, etc. shall also be screened by shrub plantings and/or low-level screen walls.

5.3.11 Landscape lighting shall be provided to aesthetically enhance the site, as well as providing for the safety and security of motorists and pedestrians throughout the project area. Pedestrian walkways shall include adequate night lighting for public safety.

Pedestrian pole light fixtures should be complementary to the building design vernacular and the master plan lighting. Poles should not exceed 20 feet in height.

Low-level lighting includes wall lights, bollard lights, ground-mounted uplights. Fixtures should be in the same family and should match any pole fixtures. Colors are as noted above. Low level wall or step light fixtures should include either opal or sandblasted glass or grills to minimize glare.

Bollard lights should be of the same family or vernacular as other light fixtures and should provide area lighting with minimal glare. Sandblasted or opal glass fixtures are recommended.

Ground-mounted uplights for trees can be either in-ground or pedestal mounted types, but should have grills to minimize glare. Tree up/downlighting is allowed for specimen trees and palms.

Lamp types should be quartz, metal halide, fluorescent, or incandescent types. High pressure sodium is approved only for use in parking lots or service areas. Specimen tree uplighting is encouraged for site entries, building entries, and plaza areas.

5.3.12 Plant materials surrounding individual projects shall be selected to create an informal pattern of landscaping with a more formal pattern of landscaping created at the project entries. Landscaping should include a variety of deciduous and evergreen shade trees, flowering shrubs and ground cover. Trees shall be of even size and shape at time of installation. Trees shall be selected based upon the size of the planting area, to allow for mature growth without causing future damage to the improvements.

All plant materials are to be heat and drought-tolerant. Plant materials that are salt-tolerant are also recommended. Perimeter areas/project edges should be planted with low water use shrubs and groundcover. Lawns and moderate-water-use shrubs and groundcovers should be restricted to feature areas and podium decks and limited in area to minimize water use. Shrubs should be used in massings interspersed with accent or specimen plantings. The use of unmowed perennial grasses such as Pennisetum, miscanthus, or Carex spp. as a foreground or middle ground material is encouraged.

Large spreading trees should be selected to provide the maximum shading of ground level and deck areas, with palm plantings used to create outdoor 'rooms' and feature plazas. Informal palm plantings and vertical tree species are to be used to reduce the scale of buildings and screen views and architecture.

Trees shall have comparatively straight trunks, well-developed leaders, and tops and roots characteristic of the species or variety. All plants must be free of insects, disease, mechanical injuries, and other objectionable features at the time of planting. Shrubs and vines shall be 5-gallon size (minimum) and drought-tolerant species. Ground cover shall be evergreen and colorful, drought -tolerant species and planted from flats (minimum) at 12" O.C. (maximum) spacing. Ground cover may be a container plant at approved spacing. All landscape areas shall be mulched with a minimum of 2" of composited bark mulch to minimize evapotranspiration.

5.3.13 Root barriers are required for all trees planting within 6 feet of a driveways, public roadways, sidewalks or plaza/courtyard hardscape area to minimize lifting of pavement areas.

5.3.14 Preservation of existing trees is encouraged and a special effort shall be made to preserve and protect existing trees in a healthy condition. Removal of healthy trees, six-feet in height or greater, shall only be done with City approval; additional tree replacement may be required. Agricultural tree rows (wind breaks) shall not be removed unless authorized by the City. Adequate measures shall be taken to mitigate any danger to the preservation or health of the tree rows. If agricultural tree rows are no longer in a healthy condition and cannot be preserved, as determined by a certified arborist, the trees may be removed with written approval from the City. Tree rows authorized for removal shall be replaced and/or additional landscape enhancement shall be provided as approved by the Parks Superintendent.

5.3.15 Water Conservation measures shall be incorporated into the landscape design of the public areas as well as the private developer parcels. Drought tolerant and other low water using plants should be considered. Xeriscape plant material and design may be appropriate for select projects. Use of mowed turf should be kept to a minimum; the majority of landscape areas should be planted with shrubs and ground cover/ indigenous grasses. All plant material selections shall be made from the approved plant materials list. Additional materials with similar characteristics may be approved by the Architectural Review Committee.

5.3.16 Automatic irrigation shall be drip, bubbler or pop-up spray or rotor head irrigation system. The design of such a system shall minimize overspray onto paved areas. The design shall provide water use calculations per A.B. 25. For spray systems, pop-up heads shall be used in all areas adjacent to paving , parking lots , and plazas. For shrub areas, pop-up shall be 6" minimum, with 12" preferred. Turf pop-ups shall be 4" high. All irrigation systems shall provide automatic operation, with pressure regulation as necessary. Quick couplers for manual watering or wash-down shall be provided at 150′ on-center maximum.

5.3.17 Maintenance responsibility for all landscaping shall be by the individual projects and kept free from weeds and debris. All vegetation shall be maintained free of physical damage or injury arising from lack of water, chemical damage, insects, diseases or other causes. Vegetation showing such damage shall be replaced with the same or similar vegetation which will be comparable at full growth. Whenever any person fails to conform to this section, the Parks Superintendent shall require compliance upon thirty (30) days written notice. This notice may be appealed to the City Council. In the event non-compliance continues thereafter, the Park Superintendent shall cause work to be done and plantings to be made to bring the landscaped area into compliance. The work will be done at the property owner's expense.

5.3.18 Plant List

Plantings for site public landscapes/streetscape and private development parcels shall be selected from the following list. Additional plant species may be considered for approval by City's Planning Landscape Architect. All Street and Median Trees shall be a minimum 36" box size.

A. Frontages/ Streetscapes Trees:

1. Rice Avenue/Del Norte Boulevard;

a. Formal Street Trees

Magnolia grandiflora

b. Background Informal Trees

Washingtonia robusta-Mexican fan Palm
Syagrus romanzoffiana - Queen Palm
Washington hybrid- Hybrid Fan Palm
Tristania conferta-Brisbane Box
Eucalyptus spp.
Pittosporum spp.
Metrosideros excelsus
Ulmus parvifolia - Chinese Elm

2. Del Norte Avenue;

a. Formal Street Trees

Magnolia grandiflora

b. Background Informal Trees

Washingtonia robusta- Mexican fan Palm
Syagrus romanzoffiana - Queen Palm
Washington hybrid - Hybrid Fan Palm
Tristania conferta -Brisbane Box
Eucalyptus spp.
Pittosporum spp.
Ulmus parvifolia - Chinese Elm
Metrosideros excelsus

3. Gonzales Avenue;

a. Formal Street Trees

Tipuana Tipu- Tipu Tree

b. Background Informal Trees

Washingtonia robusta-Mexican fan Palm
Syagrus romanzoffiana - Queen Palm
Washington hybrid - Hybrid Fan Palm
Tristania conferta - Brisbane Box
Eucalyptus spp.
Pittosporum spp.
Alnus cordata - Italian Alder
Chorisia speciosa (thornless)
Metrosideros excelsus

4. Streets "B", "C" & Gonzales Extension

Informal Trees-
Washington hybrid -Hybrid Fan Palm
Syagrus romanzoffiana - Queen Palm
Tristania conferta - Brisbane Box
Eucalyptus spp.
Fraxinus spp. - Ash Tree
Alnus cordata - Italian Alder
Olea europea - Olive
Metrosideros excelsus

5. Project Perimeter Trees;

Eucalyptus spp. - Euclayptus
Ceratonia siliqua - Carob tree
Fraxinus spp. - Ash Tree
Populus alba - White Poplar
Metrosideros excelsus

B. Shrubs;

Ligustrum japonicum 'texanum' -
Ligustrum/Privet (hedges)
Raphiolepis spp. - Indian Hawthorn
Rhus integrifolia - Lemonade Berry
Phormium tenax - Flax
Agave spp. - Agave
Aloe spp. - Aloes
Alyogene hueglii - Blue Hibiscus
Dasilyrion wheeleri - Sotol
Arctostaphylos spp -
Pittosporum spp - Pittosporum
Xylosma congestum - Shiny Xylosma
Thevetia peruviana - Yellow Oleander
Lavendula spp. - Lavender
Heteromeles arbutifolia - Toyon
Grevillea spp. - Grevillea
Garrya elliptica - Silktassel
Echium fastuosum - Pride of Maderia
Cytisus racemosus - Broom
Cistus spp. - Rockrose
Coleonema pulchrum - Pink Breath of Heaven
Myoporum laetum - Myoporum
Strelitzia reginae - Bird of Paradise
Dietes bicolor - Yellow Fortnite Lily
Ribes viburnifolium - Catalina Currant
Bougainvillea spp - Bougainvillea
Leptospermum laevigatum - Tea Tree
Salvia clevelandii -Blue Sage

C. Groundcovers/ Grasses;

Rosmarinus officianalis - Rosemary
Miscanthus spp; - Silvergrass
Festuca maieri - Fescue

Calamagrostis spp. - Reedgrass
Pennisetum spp. - Fountain Grass
Baccharis pilularis - Coyote Bush
Oenothera berlandieri -Mexican Primrose
Kniphofia uvaria - Red-Hot Poker
Senecio mandraliscae - Blue Senecio
Vinca major - Periwinkle
Juniperus spp - Prostrate Junipers
Turf - In Parkways only

5.4 SIGNAGE GUIDELINES

The Signage Guidelines provide a framework for the design and implimentation of all exterior sinage within the project. The Signage Guidelines contribute to the overall project design theme by requireng consistant solutions to the various catagories of sinage. The guidelines help asure that quality materials are used and that appropriate color, size and placcement of signs occur. The intent is to create and promote a quality visual environment by allowing only signs which are compatible with their surroundings and which effectively communicate their message.

Signs shall be designed to be architecturally compatible with the colors and materials of the adjacent building. All signs shall be subject to the provisions and procedures of the Oxnard Zoning Ordinance, and comply with the following policies.

5.4.0 SIGNAGE POLICIES

5.4.1 Signage design shall be an integral element of all projects. Proposed sign materials, size, color, lettering, location and arrangements must be carefully considered as part of the site and building design and must be compatible with the surroundings.

5.4.2 Wall signs and logos shall be located on the building for optimum visibility from the adjacent street and shall be limited to identify tenants within each building. These signs shall be restricted to the name of the firm, company or corporation only. The colors and materials of the sign structure shall be compatible with the building architectural colors and materials; sign face materials and colors may contrast.

Wall signs and logos attached to the building shall be individual letters and surface mounted.

No signs shall be painted directly on the building. No signs shall be boxed with internal lighting and attached to a building.

Wall signs shall not exceed an area equal to one square foot for each lineal foot of building frontage. Maximum size sign for each building façade adjacent to a street shall be one hundred (100) square feet for industrial projects, two hundred (200) square feet for commercial projects. Maximum letter height shall be thirty (30) inches.

Wall signs shall be limited to one (1) sign per building elevation with a maximum of two (2) wall signs per primary tenant on non-adjacent building facades. These signs shall be internally illuminated or non-illuminated.

Wall signs shall be limited for secondary tenants to a maximum of one (1) sign per tenant. In no event shall there be more than four (4) secondary tenant wall signs permitted per building and no more than two (2) per building elevation. Additional wall signs shall be permitted at the primary entry to a building. The maximum size shall be ten (10) square feet with the maximum letter height of twelve (12) inches.

5.4.3 Freestanding signs for business identification shall be limited to perimeter locations within the street landscape setback area and shall be of a monument design. These signs shall not exceed five (5) feet in height, as measured from the adjacent grade, and not more than one-hundred twenty (120) square feet in area. Freestanding signs for tenant identification may be installed within or adjacent to a private entry driveway. Entry signs must be located and sized so as to not interfere with vehicular visibility and/or movement. Entry signs shall be limited to thirty-two (32) square feet and shall not exceed four (4) feet in height. Entry signs may be placed on a berm not exceeding eighteen (18) inches in height. Entry signs shall include the building address.

All freestanding signs shall be of a monument design, including: business identification, business directory, and information/ directional identification. Street-side signs, at access driveways, shall be used to identify a building address/tenant, and to direct traffic to that building. Internal, on-site signs shall be utilized to provide information and location to pedestrian and automobile traffic. Freestanding retail commercial signs shall be a minimum of two hundred and fifty (250) feet apart.

5.4.4 Business directory signs which are freestanding shall be located near the primary entry and access drive. These signs shall be limited to identifying the building address and tenants, and shall be visible from the intersection of a private driveway and a public street. These signs shall not be allowed elsewhere within the landscape setback area or along street frontages. Business directory signs shall not exceed a maximum area of twelve (12) square feet per face, may be double faced adjacent to a street front and single faced adjacent to a building, and shall not exceed three (3) feet in vertical height. Signs shall be limited to one sign per building. More than one building address may be identified on one sign. Signs shall be consistent with the overall building architecture.

5.4.5 Information/directional signs shall be used to provide direction to on-site automobile traffic or pedestrians and not visible from off-site areas. Informational/directional signs shall be limited to six (6) square feet per face, double faced. This sign shall not exceed three (3) feet in vertical height.

Informational/directional signs shall be limited to the identification of function and/or service and shall not contain the name of the business, company or corporation providing the function and/or service. When appropriate, such signs shall contain a directional arrow and provide direction to functions and/or services or information such as Authorized Vehicles Only, Handicapped Parking Only, and Loading zone.

5.4.6 Temporary signs shall be allowed to provide information and facilitate information during the construction and leasing. Such signs shall be limited to one per lot, with a maximum of sixty-four (64) square feet and eight (8) feet in overall height.

Temporary directory signs shall be permitted on construction sites, and limited to one (1) for all contractors. The sign shall not exceed thirty-two (32) square feet, unless legally required by government contracts to be larger. The sign shall not exceed eight (8) feet in overall height and shall be located no less than ten (10) feet from any property line. These signs shall be removed upon completion of the project.

5.4.7 Future tenant signs may be placed on vacant or developing property to advertise the future use of the property and where additional information may be obtained. Such signs shall be limited to one per street frontage and to a maximum of thirty-two (32) square feet in area and eight (8) feet in overall height. These signs shall be placed no less than ten (10) feet from the property line. Any such sign shall be removed upon occupancy of the project.

5.4.8 Business Park identification signs may also be installed at key intersections, in landscaped areas within the right-of-way or landscaped street medians. Park identification signs shall be limited to onehundred fifty (150) square feet and not exceed five (5) feet in vertical height, and only identify the overall business park.

6

SECTION SIX

6.0 PURPOSE

The purpose of this section is to provide specific development regulations and standards that will be applied to individual development projects in each Planning Area of the Specific Plan. Upon adoption by the City of Oxnard, the Sakioka Farms Business Park Specific Plan will be the zoning for the project area.

6.1 GENERAL PROVISIONS

The provisions contained herein shall govern the design and development of the Sakioka Farms Business Park Specific Plan area. Standards and/or criteria for development and activities not specifically addressed in this Specific Plan may require referral to the current provisions of the Oxnard Zoning Ordinance and Municipal Code.

Whenever a use has not been specifically listed as being a permitted use in a particular Planning Area of the Specific Plan, it shall be the duty of the Planning Manager to determine if the use is consistent with the intent of this Specific Plan and compatible with other permitted uses. In the case of any conflicting provisions, the regulation and policies of the Specific Plan shall prevail. In addition, all projects must comply with the following policies.

6.1.0 POLICIES

6.1.1 Grading Plans shall be approved by both the Planning Manager and Director of Public Works, unless there are provisions to the contrary.

6.1.2 All construction shall comply with published, applicable, Federal, State, and Municipal laws, rules, regulations and codes in effect at the time of the work, and the interpretations of the agencies having jurisdiction there of for that period of time.

6.1.3 Construction may commence only after the Planning Manager finds that the project is consistent with the regulations, and applicable policies and guidelines of the Specific Plan.

6.1.4 Existing farming and related activities at the time of plan adoption shall be deemed in conformance with the Specific Plan. In addition, all existing facilities are deemed to be in conformance with the Specific Plan.

6.2 DEFINITIONS

For the purposes of the Specific Plan, words, phrases and terms shall have the meanings as defined below. Terms not specifically defined in the Specific Plan shall have the same definition as used in the City of Oxnard Zoning Ordinance at the time of Specific Plan adoption.

When not inconsistent with the context, words used in the present tense include the future tense; words used in the singular number include the plural number; and words of the masculine gender include the feminine and neuter gender. The word "shall" is always mandatory and the word "may" is permissive.

6.2.1 Accessory building. A detached building on the same site as a main building, the use of which is incidental to that of the main building such as a storage shed, etc., and which is used exclusively by the occupants of the main building. May also be referred to as satellite structures.

6.2.2 Antenna, satellite dish. An apparatus capable of receiving communications from a transmitter or transmitter relay.

6.2.3 Architectural projections or appurtenances. Features on buildings which provide visual variation and/or relief but do not serve as interior or exterior living or working space.

6.2.4 Building height. . The vertical dimension measured from the top of the highest roofline to the finished pad elevation shown on the approved grading plan.

6.2.5 Building, main. A building in which the principal use of the lot is conducted.

6.2.6 Director. Planning Manager for the City of Oxnard.

6.2.7 Entryway. The point of ingress and egress from a public or private street to individual projects may also serve as shared entryway to multiple parcels or projects.

6.2.8 Final approval. Ten (10) days after approval by the discretionary body and no appeal of that decision has been filed.

6.2.9 Grade. The surface of the ground or pavement at a stated location as it exists prior to disturbance in preparation for a project.

6.2.10 Gross floor area. The area included within the surrounding exterior walls of a building.

6.2.11 Line of sight. A visual path emanating from an average eye level adjudged to be five (5) feet above ground level.

6.2.12 Local street. A low-speed, low-volume public thoroughfare used primarily for access to individual properties.

6.2.13 Lot. Any numbered or lettered parcel shown on a recorded tract map, a record of survey pursuant to an approved division of land, or a parcel map. A lot includes any area of land under one ownership abutting upon at least one street, alley, common area lot or recorded easement.

6.2.14 Lot area. See net lot area.

6.2.15 Lot depth. The average horizontal distance between the front and rear property lines, measured in the mean direction of the side property lines.

6.2.16 Lot frontage. The linear length of a lot measured along the property line adjacent to a street or easement.

6.2.17 Lot line. Any line bounding a lot. "Property line" means the same as "lot line."

6.2.18 Lot line, front. On an interior lot, the front lot line is the property line abutting the street. On a corner or reverse corner lot, the front lot line is the shorter property line abutting a street, except in those cases where the subdivision or parcel map specified another line as the front lot line. On a through lot, or a lot with three or more sides abutting a street, or a corner or a reverse corner lot with lot lines of equal length, the Planning Manager shall determine which property line shall be the front lot line for the purposes of compliance with yard and setback provisions of this division. On a private street or easement, the front and/or exterior lot line shall be designed as the edge of the easement.

6.2.19 Lot line, interior. A lot line not abutting a street.

6.2.20 Lot line, rear. A lot line not abutting a street which is opposite and most distant from the front lot line; in the case of an irregularly shaped lot, the rear lot line shall be determined by the Planning Manager. A lot which is bounded on all sides by streets may have no rear lot lines.

6.2.21 Lot width. Lot width shall be calculated as indicated for the following types of lots:

(a) Rectangular lot shall be measured along a line equidistant to and twenty (20) feet from the front property line.

(b) Cul-de-sac and knuckle lots shall be measured twenty (20) feet from the front property line along a line perpendicular to the bisector of the front property line.

(c) Cul-de-sac lots siding on another street, or similar properties, shall be measured along a line perpendicular to the interior side property line and twenty (20) feet from the front property line.

6.2.22 Net lot area. The total horizontal area within the property lines of a parcel of land exclusive of all rights-of-way, easements or dedications which physically prohibit the surface use of that portion of the property for other than vehicular ingress and egress, parking, and/or landscaping.

6.2.23 Open space. Any part of a lot or parcel unobstructed from the ground upward, excepting architectural features extending no more than thirty-six (36) inches from the structure. Driveways and other parking areas shall not be considered open space.

6.2.24 Parking structure. A structure used for parking of vehicles where parking spaces, turning radii and drive aisles are incorporated within the structure.

6.2.25 Person. The word "person" includes association, company, firm, corporation, partnership, co-partnership or joint venture.

6.2.26 Private street. A privately owned and maintained roadway used to provide vehicle access to abutting properties.

6.2.27 Retail commercial use. Permitted uses within this designation include restaurants, hotels, entertainment and general merchandise establishments.

6.2.28 Setback line. The line which defines the width or depth of the required yard. Such line shall be parallel to the property line and removed there from by the perpendicular distance described as the setback.

6.2.29 Site. Any legally created parcel of land bounded by property lines after dedication

6.2.30 Site coverage. The footprint building area of all structures on a site, as measured from all exterior building surfaces. Architectural features such as bay windows, eaves and canopies that do not project more than thirty-six (36) inches, and decks that do not exceed more than forty-eight (48) inches in height are excluded.

6.2.31 Site plan. A plan prepared to scale, showing accurate and complete dimensions of all: buildings, structures, landscaping, parking, drive aisles, uses, etc. and the exact manner of development proposed for a specific parcel of land.

6.2.32 Story. That portion of a building, excluding basements, included between the surface of any floor and the surface of the floor next above it or the finished under surface of the roof directly above.

6.2.33 Street. A public or approved private thoroughfare or road easement which affords the principal means of access to abutting property.

6.2.34 Structure. Any building or portion thereof, wall, fence, etc., extending forty-eight (48) inches in height above the grade.

6.2.35 Structural alteration. Any change in, or alterations to, the structure of a building involving: the bearing wall, column, beam or ceiling joints, roof rafters, roof diaphragms, foundations, retaining walls or similar components.

6.2.36 Ultimate right-of-way. The adopted maximum width for any street, alley or thoroughfare as established by: the General Plan, a precise plan of street, alley or private street alignment, a recorded parcel map, or a standard plan of the department of Public Works. Such thoroughfares shall include any adjacent public easement used as a walkway and/or utility easement.

6.2.37 Yard. an open, unoccupied space on a lot on which a building is situated and, except where provided in the ordinance code, is completely unobstructed from the ground to the sky.

6.2.38 Yard, front. A yard extending across the full width of the lot between the side lot lines and between the front lot line and either the nearest line of the main building or the nearest line of any enclosed or covered entry. The front lot line shall be deemed to be the existing nearest right-of-way line of the abutting street, road or highway, unless a different right-of-way line for future use shall have been precisely fixed by formal action of the City Council pursuant to law or ordinance.

6.2.39 Yard, rear. A yard extending across the full width of the lot between the side lot lines and measured between the rear lot line and the nearest rear line of the main building or the nearest line of any enclosed or covered entry.

6.2.40 Yard, side. A yard extending from the front yard to the rear yard between the side property line and the nearest line of the main building or any accessory building.

6.3 DEVELOPMENT STANDARDS

The Development Standards shall serve as the mechanism for the implementation of the Sakioka Farms Business Park land uses. The standards set forth in this section will assure that future development within the Specific Plan is implemented in a manner consistent with the intent of the Master Plan. The standards contained herein provide flexible mechanisms to anticipate future needs and achieve compatibility between land uses and the surrounding community. The standards and guidelines are designed to be compatible with the existing land use categories of the City. The primary land uses in the Sakioka Farms Business Park shall be industrial, research and development and office; commercial, residential, public and semi-public uses are secondary and may be permitted in certain Planning Areas.

The Development Standards establish an orderly framework of land uses, amenities and building design criteria within the Specific Plan. They are structured to allow a variety of compatible land uses, operations and activities that will create a desirable live-work environment and effect a harmonious relationship with surrounding properties and the community in general.

6.3.1 Permitted Uses

The Specific Plan's permitted uses shall comply with these Development Regulations and, when not addressed by these Regulations, the City of Oxnard Zoning Code.

The list of permitted uses is typical of the types of uses which shall be allowed in each Planning Area. Uses listed which do not reasonably comply with the performance standards of this zone shall not be permitted. All permitted uses and activities shall be within an enclosed building unless otherwise approved. Storage or ancillary activities may be conducted outside if adequately screened from view and approved.

Accessory Structures incidental to a permitted principal use or structure, may be erected on any parcel containing a main building provided that such structures conform with all requirements of the Specific Plan.

Parking Structures may be constructed in each Planning Area and subject to all the development regulations of the Planning Area with the exception of maximum floor area ratio and maximum site coverage; no maximums shall be established for these provisions.

Accessory Uses intended to augment and support the primary activity are permitted within each Planning Area. Such activities may include administrative and corporate offices within industrial uses, governmental facilities within public/semi-public uses, employee cafeteria, service and recreational facilities, along with repair, maintenance and storage facilities related to the primary permitted use.

Prohibited Uses not allowed within the Specific Plan shall include:

- Adult Businesses

PERMITTED USES MATRIX
EXHIBIT 6.1

PERMITTED USES	PLANNING AREA						
	1	2	3	4	5	6	7
INDUSTRIAL							
MANUFACTURING		O	O	O	O	O	
FABRICATION		O	O	O	O	O	
ASSEMBLY		O	O	O	O	O	
PROCESSING MATERIALS		O	O	O	O	O	
AGRICULTURAL PRODUCE		O	O	O	O	O	
MAINTENANCE AND REPAIR		O	O	O	O	O	
WAREHOUSE AND STORAGE		O	O	O	O	O	
PACKAGING		O	O	O	O	O	
OFFICES (not exceeding 20% of the primary use)		O	O	O	O	O	
BUSINESS AND RESEARCH							
RESEARCH AND DEVELOPMENT	O	O	O	O		O	
LABORATORIES	O	O	O	O		O	
OFFICES	O	O	O	O			O
LIGHT INDUSTRIAL		O	O	O	O	O	
PROFESSIONAL SERVICES	O	O	O	O		O	
PERSONAL SERVICES	O	O	O	O		O	
SUPPORT COMMERCIAL (not exceeding 15% of the primary use)	O	O	O	O			O
COMMERCIAL							
BANKS & FINANCIAL INSTITUTIONS		O	O	O			O
EATING AND DRINKING ESTABLISHMENTS	O	O	O	O			O
RETAIL SALES		O	O	O			O
MAINTENANCE AND REPAIR							O
PERSONAL SERVICES		O	O	O			O
HOTEL, MOTEL AND ANCILLARY RETAIL	O						
AUTOMOBILE SERVICE STATIONS	O						O
HEALTH CLUB / RECREATION	O						
PUBLIC / SEMI PUBLIC							
CONFERENCE FACILITIES	O		O				
DAY CARE FACILITIES	O	O	O	O			
CHURCH/RELIGIOUS FACILITIES	O	O	O	O			
GOVERNMENT FACILITIES		O	O	O			
COMMUNITY PARK FACILITIES		O	O	O			
PUBLIC RECREATION FACILITIES		O	O	O			
COMMUNITY UTILITY FACILITIES					O	O	
Residential		O	O	O			

6.3.2 Division of Property

The development of all permitted use shall take place only on legally constituted building sites of record. Where the division or reversion to acreage of property is required, the regulations and procedures of the Oxnard subdivision ordinance shall be followed.

6.3.3 Lot Area, Width & Depth

Minimum lot area width and depth, exclusive of any public right-of-way dedicated for road purposes or proposed road purposes, shall be established in each Planning Area.

6.3.4 Maximum Building Height

The maximum allowable building height shall be established in each Planning Area. An additional fifteen (15) feet in height will be allowed for roofline treatment, architectural features and special equipment or mechanical devices. Building height may also be increased by fifteen (15) feet for buildings 3 stories or less and twenty (20) for buildings over 3 stories to allow roof top mechanical.

6.3.5 Intensity

The overall intensity for the Specific Plan area has been established by the City's General Plan. The maximum floor area ratio (F.A.R.) for each Planning Area varies in accordance with the anticipated uses.

6.3.6 Site Coverage

The maximum ground floor area of all buildings and structures shall be established in each Planning Area, and measured by the maximum ground floor area of all buildings and structures.

6.3.7 Setbacks

The minimum setbacks for all buildings and structures shall be as follows:

Front yard setbacks adjacent to a public roadway shall not be less than twenty (20) feet from the property line. A minimum of thirty (30) feet shall be required adjacent to an arterial highway.

Side yard setbacks on interior property lines shall not be less than ten (10) feet from the property line. A minimum side yard of fifty (50) feet shall be required whenever a proposed project abuts a lot or parcel of land in a residential zone. The side yard adjacent to the public street shall meet the front yard setback requirements.

A common building wall with a zero setback may be established by a development plan, which shall provide documentation describing the exchange and recordation of necessary documents to insure adequate access, parking and easements to serve the development.

Rear yard setbacks shall be not less than ten (10) feet from the property line. A minimum rear yard of fifty (50) feet shall be required whenever a proposed project abuts a lot or parcel in a residential zone.

DEVELOPMENT REGULATIONS MATRIX
EXHIBIT 6.2

(1) Footprint lots may be smaller than the minimum lot area and shall have all required appurtenant area contiguous thereto and the sum of these areas shall not be less than the minimum lot area.

(2) Maximum height measured to main roofline with equipment, equipment rooms and roof screens permitted to extend beyond maximum building height.

(3) Parking structures are excluded from Maximum Site Coverage.

6.3.8 Landscaping

Project landscaping is intended to enhance, conserve and stabilize property values by encouraging a pleasant and attractive environment. Landscaped areas shall be considered those areas of lawn, trees, planter boxes, shrubs or other plants. Courtyards, plazas, water ponds, fountains, decks, kiosks, walkways and similar areas may be part of the landscaped area. A minimum portion of each project site must be landscaped with a combination of landscape materials and hardscape walkways and plazas, the extent of required landscaping shall be established in each Planning Area.

A landscape plan shall be prepared and submitted with all requests for development. All other setback and parking lot areas fronting on, or visible from, adjacent public streets shall be landscaped and permanently maintained in an attractive manner, consistent with the Landscape Guidelines contained in the Specific Plan and City Standard Landscape Plans.

A minimum five (5) foot wide landscape setback to parking is required at interior property lines.

A minimum fifteen (15) foot deep landscape area is required along common property lines separating residential and industrial land uses. Plant materials used for screening purposes shall consist of compact evergreen plants, together with evergreen trees. They shall be of a kind, or used in such a manner, so as to provide an opaque screen within eighteen (18) months after initial installation. This requirement shall be located on the second parcel developed. If adjacent residential and industrial parcels are developed concurrently, the responsibility shall be met by the residential parcel.

6.3.9 Parking

Parking requirements have been established for the Specific Plan based on the City of Oxnard's Parking Regulations and Standards Ordinance adopted in October of 1994. Administrative relief from the parking provisions of the Specific Plan may be requested subject to the provisions outlined in the City's Zoning Code (Sec. 36-7.1, 31).

In order to provide suitable off-street parking facilities for various property uses and to ensure the safe movement of traffic on public streets and to protect adjacent properties from adverse impacts; all developments will be required to meet the minimum on-site parking standards outlined in the Specific Plan. On-street parking will not be permitted on any arterial, only on local streets.

Vehicle and bicycle parking facilities shall be provided off-street for any new building constructed, for any new use established and for any change in use in an existing building that would result in additional parking spaces being required.

Standard parking spaces shall be an unobstructed rectangle of not less than nine (9) feet in width by nineteen (19) feet in depth, and shall meet City's stripping standards.

REQUIRED PARKING MATRIX
EXHIBIT 6.3

USE	REQUIRED PARKING
INDUSTRIAL	
LIGHT MANUFACTURING	1 sp. / 500 sq. ft. *
HEAVY MANUFACTURING	1 sp. / 500 sq. ft. *
WAREHOUSING (first 20,000 sq. ft.)	1 sp. / 1000 sq. ft. *
WAREHOUSING (second20,000 sq. ft.)	1 sp. / 2000 sq. ft. *
WAREHOUSING (40,000+ sq. ft.)	1 sp. / 4000 sq. ft. *
BUSINESS AND RESEARCH	
RESEARCH AND DEVELOPMENT	1 sp. / 350 sq. ft. *
OFFICES	1 sp. / 250 sq. ft.
MEDICAL OFFICES	1 sp. / 200 sq. ft.
PROFESSIONAL SERVICES	1 sp. / 250 sq. ft.
COMMERCIAL	
SHOPPING CENTER	1 sp. / 250 sq. ft.
RETAIL GENERAL	1 sp. / 300 sq. ft.
RETAIL NEIGHBORHOOD	1 sp. / 250 sq. ft.
RETAIL FURNITURE / APPLIANCE	1 sp. / 300 sq. ft. (display) 1 sp. / 800 sq. ft. (warehouse)
AUTO REPAIR / SERVICE	1 sp. / 300 sq. ft. + 3sp / service bay
BANKS / FINANCIAL	1 sp. / 250 sq. ft.
HOTEL / MOTEL	1 sp. / room
RESTAURANT	1 sp. / 75 sq. ft. (first 6,000 sq. ft.) 1 sp. / 180 sq. ft. (+6,000 sq. ft.)
RESTAURANT (fast food)	1 sp. / 50 sq. ft.
HEALTH CLUB	1 sp. / 200 sq. ft.
PUBLIC / SEMI PUBLIC	
DAY CARE FACILITY	1 sp. / 10 children (must be provided w/ drop-off area)
PUBLIC ASSEMBLY	1 sp. / 35 sq. ft.
RESIDENTIAL	1sp / bd + 1/2 guest sp. / du

* Plus the required parking for gross floor area devoted to other uses

Parking lots need to be designed to City Standards with a minimum 25′ wide drive aisles and 48′ turning radius

Handicap accessible parking spaces shall be as required by Federal and State laws and codes.

Multiple Uses developed in combination on a site, shall be provide parking for each of the uses according to the schedules given. Uses not listed on the parking schedule shall have the required parking determined by the approval body on the basis of requirements for similar uses, or any appropriate traffic engineering or planning data with recommended minimum requirements.

Shared parking may be permitted for combined office, residential (guest parking only) and commercial uses. A shared parking program may allow for a reduction of code required parking by up to twenty-five (25) percent, based upon a shared parking analysis. Shared off-site parking facilities may also be permitted for adjacent office and industrial uses, and unique uses such as churches or other community facilities.

Phasing required parking may be permitted and installed, as needed, provided sufficient parking for employee projections can be met. The initial phase of required parking shall be a minimum of fifty (50) percent of the required parking. A covenant shall be recorded on the property prior to occupancy to insure provision of all parking as necessary. All areas set aside for future parking facilities shall be landscaped consistent with other on-site landscaping and may not be used for building development or expansion.

Bicycle parking shall be provided as follows:

Shopping Centers	1 sp / 33 autos
Restaurants	5 sp
Banks	2 sp
Office	5 sp
Public Assembly	2 sp

Bicycle racks shall be located in a visible area from the street or building entrance. Safe and convenient access for bicyclists from the external circulation system to on-site buildings or internal streets shall be provided. However, separate bicycle paths shall not be required. Bicycle parking areas must be separated from motor vehicle parking areas by at least a curb barrier in order to prevent vehicles from damaging bicycles.

Motorcycle parking shall be provided in required parking facilities at the rate of one (1) parking space per fifty (50) automobile parking spaces. Motorcycle spaces shall be a minimum of four and one-half (4 ½) feet in width by seven (7) feet in length.

Loading spaces shall be provided and maintained off-street within the project at the following rate:

Use (gross floor area)	**Requirements** (# of loading spaces)
Commercial & Industrial	
0-15,000	1
15,001-40,000	2
40,000-90,000	3
90,000-150,000	4
150,000 and over	5

Use (gross floor area)	Requirements (# of loading spaces)
Offices	
0-50,000	1
50,001-100,000	2
100,000 and over	3
Hotels, motels, and restaurants	1

Loading spaces shall be at least twelve (12) feet in width, thirty-eight (38) feet in length, and with fourteen (14) feet in vertical clearance. Loading zone requirements shall be subject to individual project reviews.

Drive-thru facilities may be approved subject to individual project review. Drive-thru lanes shall be separated from the circulation routes necessary for ingress or egress to the property and parking access. The principal pedestrian access to the entrance of the drive-thru facility shall not cross the drive-thru lane. The vehicle stacking capacity for uses containing drive-thru facilities shall be as follows:

Use	**Requirements**
Fast-food restaurant	Stacking for three(3) cars between the order board and the pick-up window and stacking for five (5) cars behind the order board.
Bank drive-thru windows	Stacking for five (5) cars for each window.

Vehicle stacking areas may be used as credit for required parking up to thirty (30) percent but shall not exceed twenty (20) spaces.

Finishes and surfacing for all parking spaces and maneuvering areas shall be paved and permanently maintained with asphalt, concrete, or any other all-weather method. Curbs/wheel stops shall be provided to prevent vehicle encroachment into landscape and access areas.

A curb shall consist of a continuous six (6) inch high concrete installed above the parking lot level and serve as an edging for planting areas, islands, protection for walls and for entrances and exits. Where concrete curbs are not installed adjacent to public sidewalks, wheel stops or bollards shall be installed to prevent vehicles from encroaching into or onto a public right-of-way.

Vehicle overhangs may be permitted up to two (2) feet adjacent to walkways and landscape areas providing that a minimum seven (7) foot wide walkway (five foot clear) and the minimum landscape setback width is maintained beyond the two (2) foot overhang.

6.3.10 Signs

All signs in the project area shall conform to the provisions of the City's Zoning and Subdivision Ordinance and shall be consistent with the Guidelines of the Specific Plan.

6.3.11 Lighting

All illumination of streets, parking areas, and project sites, shall be coordinated to provide a consistent illumination intensity and shielded from abutting streets and adjoining properties. Emphasis shall be placed on areas of high vehicular and pedestrian activity. Light fixtures and standards shall be consistent with building architectural style.

6.3.12 Walls and Fencing

Walls and fences are encouraged as means of providing security and screening. Walls shall be constructed of masonry or concrete materials consistent with, and complimentary to, building architecture. Fencing shall be restricted to ornamental iron; chain-link fencing shall not be used. Decorative masonry walls a minimum of six (6) feet in height or other type of visual buffering such as landscaping, architectural treatment, or a combination thereof, shall be provided and maintained on a property line which abuts or is across a public street or alley from a residential zone. Such wall or visual buffering shall be placed in the location to provide the necessary screening from the public right-of-way. Screening walls surrounding outdoor storage and other activity areas may be constructed up to ten (10) feet in height.

6.4 Performance Standards

The maximum permitted levels of operational characteristics resulting from any activity shall be called performance standards. Continued compliance with the performance standards as outlined in the Specific Plan shall be required of all permitted uses.

All sites and structures within the Specific Plan area shall not be used or occupied in any manner so as to create any dangerous, noxious, injurious, or otherwise objectionable situation. Dangerous or objectionable substances, conditions or elements, shall not be used in a manner or amount as to adversely affect the environment or surrounding community. More restrictive performance standards or regulations enacted by an authorized governmental agency having jurisdiction on such matter shall take precedence over the provisions of the Specific Plan.

6.4.1 Noise

Baffling or muffling devices or other precautionary means shall be employed with the processes or operations causing objectionable noise characteristics to prevent their being objectionable when measured at the property line during normal operation.

6.4.2 Smoke and Particulates

Visible emissions of smoke will not be permitted which exceed Ringlemann No. 1 on the Ringlemann Chart of the U.S. Bureau of Mines, except for exhausts emitted by motor vehicles or other transportation facilities. This requirement shall also be applicable to the disposal of trash and waste materials. Wind-borne dust, dirt, fly ash, airborne solids, sprays and mists (except water vapor) originating from any use will not be permitted.

6.4.3 Toxic or Noxious Matter

Toxic gases or noxious matter shall not be emitted which can cause any damage to health, to animals vegetation or other forms of property, or which can cause any excessive soiling beyond the lot lines of the use.

6.4.4 Odorous Matter

Operations, processes or products which emit odors that are detectable at any point beyond the property line from any use are not to be permitted.

6.4.5 Glare or Heat

Any operation producing intense glare or heat shall be performed within an enclosed or screened area in such a manner that the glare or heat emitted will not be discernable from the property line.

6.4.6 Vibration

All activities shall be operated so that the ground vibration generated by the use is not harmful or injurious to the use of the surrounding properties. No vibration shall be permitted which is perceptible without instruments at any point along the property line.

6.4.7 Electricity and Radio Activity

No activity shall be permitted which causes electrical disturbances affecting the operation of any equipment located beyond the property line of such activity.

Radio and television transmitters shall be operated at the regularly assigned wave lengths (or within the authorized tolerances) as assigned by the appropriate governmental agency. Any exception must be suitably wired, shielded and controlled so that in operation they shall not emit electrical impulses or waves beyond the lot lines which adversely affect the operation and control of any domestic household equipment or any other electronic devices and equipment.

6.4.8 Liquid and Solid Wastes

Liquid or solid wastes discharged from the premises shall be properly treated prior to discharge so as not to contaminate or pollute any watercourse or groundwater supply or interfere with bacterial processes in sewage treatment. Such operations shall comply with authorized governmental health and safety regulations of agencies having jurisdiction over such disposal activities. The disposal or dumping of solid wastes, such as slag, paper or fiber wastes, or other industrial wastes, shall not be permitted on any premises unless otherwise provided for.

6.4.9 Fire and Explosive Hazards

All activities involving the use or storage of combustible, flammable or explosive materials shall be in compliance with nationally recognized standards, and shall be provided with adequate firefighting and fire-suppression equipment and devices in compliance with the current edition of the National Fire Protection Association regulations. Burning of waste materials in open fires is prohibited.

6.4.10 Exceptions

The outlined Performance Standards do not apply to unexpected brief periods where the standards are exceeded, if based upon a reasonable cause, such as equipment testing, breakdown of equipment, modification or cleaning of equipment, or other similar reason; when it is evident that such cause was not reasonably preventable.

APPENDICES (future documents)

City of Oxnard Planning & Environmental Services Industrial Project List

ID	DEVELOPER	PHONE	PROJECT	SQF	APN	NUMBER	DIR	NAME	SUFX	STAT	PERMIT	TYPE	PZ	PLNR	DESCRIPTION
29	Barry Carlisi	818-706-3997	*Unnamed*	40,392	223004404	720		Arcturus		3	04-7176	SUP	03-500-31	WW	2 Industrial Buildings
30	City of Oxnard-Water Division	805-385-8136	*Blending Station No. 3*	4,300	213007006	1700		Solar	DR	2		SUP	03-500-30	CW	4 Wells and Water Blending Facility

Planning and Environmental Services Division
City of Oxnard
305 W. Third St., Oxnard, CA 93030
(805) 385-7858 Fax: (805) 385-7417
http://www.ci.oxnard.ca.us

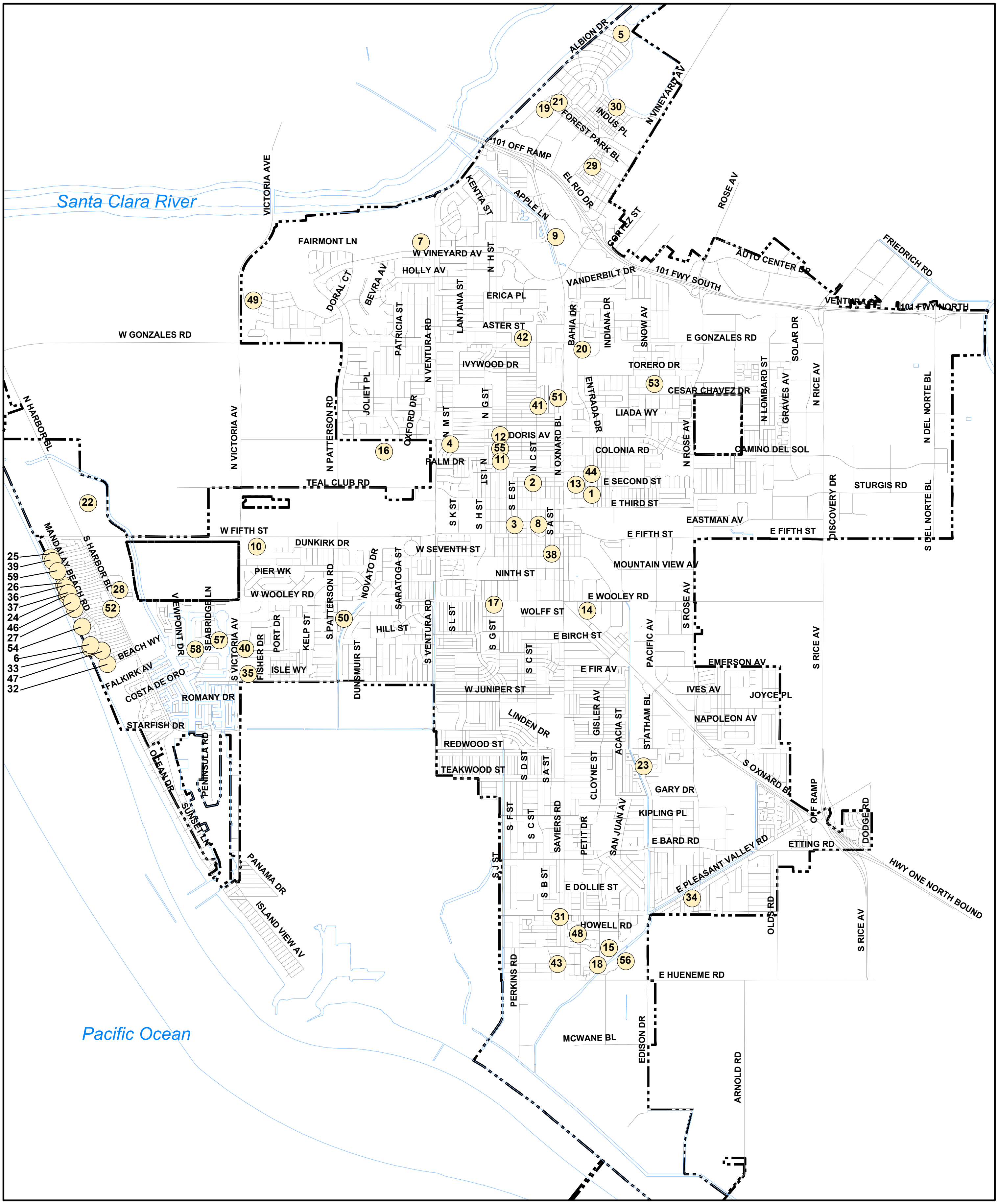
DEVELOPMENT PROJECT LIST

The City of Oxnard is happy to provide a summary of proposed developments within the City. The development summary tables are divided into residential, commercial and industrial categories. The city's project planner for each project is identified by the two-letter initials shown to the right of each project. The following table provides a list of names and phone numbers for each project planner.

Initials	Project Planner	Phone Number
SM	Sue Martin	805-385-8207
AG	Ashley Golden	805-385-7882
JM	Juan Martinez	805-385-7556
CW	Chris Williamson	805-385-8156
KM	Kathleen Mallory	805-385-7858
LW	Linda Windsor	805-385-7849
WW	Winston Wright	805-385-7952
JR	Jared Rosengren	805-385-8312

Note: This list was prepared by the City of Oxnard, Planning and Environmental Services Division, for informational purposes only. The City does not warrant the accuracy of the information provided. For inquiries regarding price and availability, please contact the developer directly at the number provided.

Revised April, 2006



Residential Projects Map

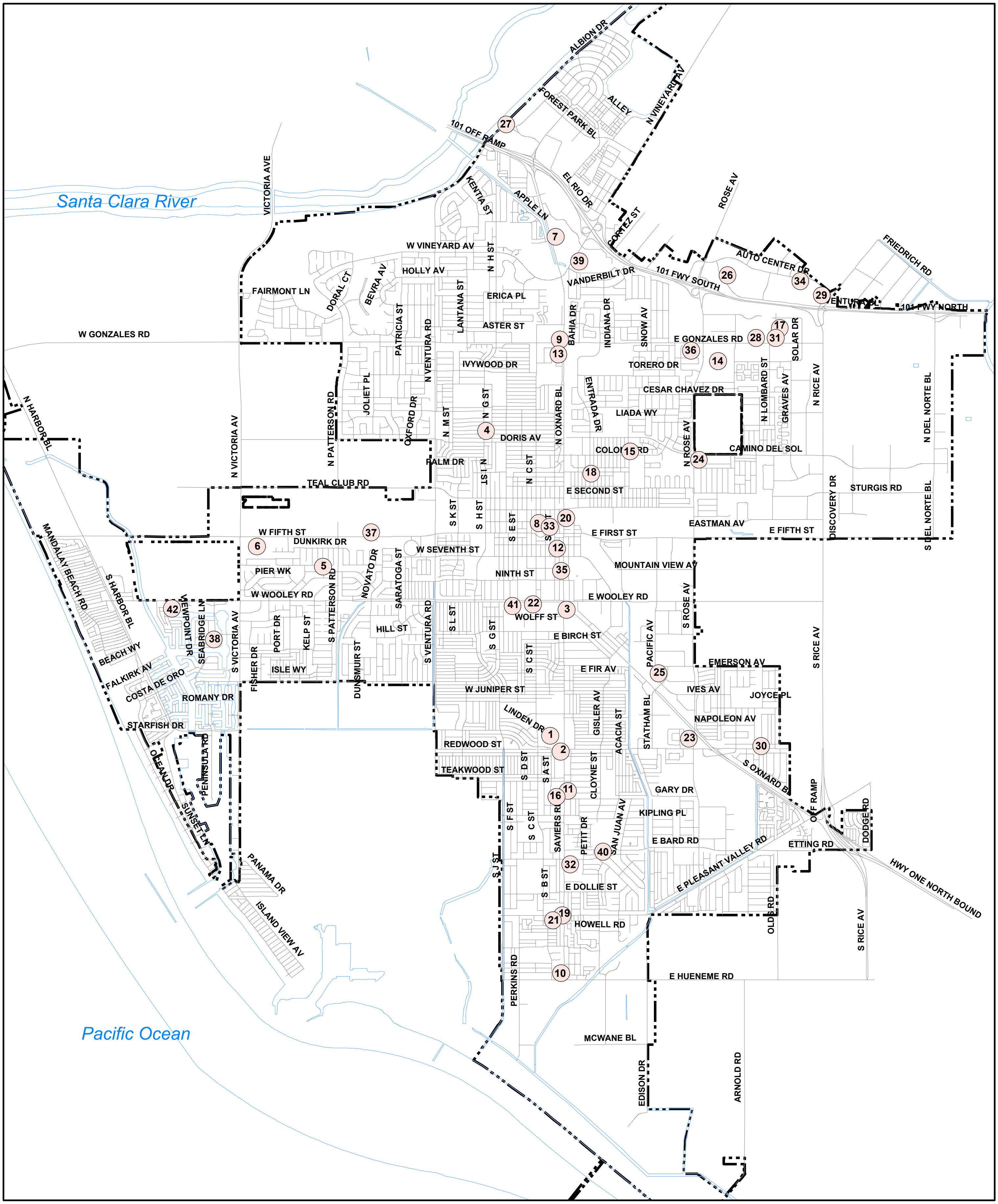
0 0.5 1 2 3 4 Miles

Planning & Environmental Services

April 2006

ID	DEVELOPER	PHONE	PROJECT	APN	NUMBER	DIR	STREET	SUFFIX	STATUS	PERMIT	TYPE	PZ	PLNR	NOTES
1	Hekar Rivera	805-240-7626	Unnamed	201012508	150	S	Garfield	AV	1		DDR	06-200-6	JR	New 2,367 sq. ft. residence.
2	Mark Herrera	805-483-6101	Unnamed	202004509	411	W	First	ST	1		DDR	06-200-5	JR	New 4,200 sq. ft. residence.
3	Norma Borciaga	805-483-9240	Unnamed	202007503	419	S	E	ST	1		DDR	06-200-3	JM	One bedroom home plus a 693 sq. ft. car garage.
4	Alejandro Mendoza	805-217-6003	Unnamed	200026201	535	N	M	ST	1		DDR	06-200-2	WW	New residence with a two car garage.
5	Shea Homes/Standard Pacific	818-874-2300	RiverPark(Tract 5643)	133001067					1		DDR	06-200-1	LW	425 condominiums, 187 single family residences, 60 live/work condominiums.
6	Roy Milbrandt	805-639-0185	Unnamed	191013230	1431		Marine	WY	1		CDP	06-400-1	WW	Demolish existing residence & garage, and rebuild a new residence.
7	Darren Embry	310-385-5078	Ventura/Vineyard	179004017	1801	W	Vineyard	AV	1		PD	06-540-1	KM	180 SF Homes. APN 179004018.
8	Oxnard Plaza Association	805-983-8674	North Plaza	202010120			C	ST	1		SUP	05-500-25	AG	Redevelopment of 1.43 Acres(15 parcels) Including Partial Vacation of N. Fifth St. & Demolition of a 12,750 sq.ft. Structure. 2 mixed-use Buildings with 7,00 sqft. of Retail and Five Stories of For-Sale Condominiums.
9	Avion Development	619-243-2476	Channel Islands Center	142001034	2420	N	Oxnard	BI	1		PD	05-540-4	AG	Proposed 3 Towers Consisting of Residential Units & Mixed Use Commercial. 953 Residential Units on 8.67 Acres on the NW Corner of Oxnard Bl. & N. Vineyard Av.
10	D.R. Horton	661-257-3399	Rancho Victoria	185017005	3600	W	Fifth	ST	2		MJMD	05-550-2	CW	105 Condominiums, 42,400 SQFT of Commercial.
11	American Housing	213-487-2400	Sycamore gardens	200029130	333		F	ST	2		MJMD	05-550-1	CW	40 Condominiums, seniors.
12	American Housing	213-487-2400	Doris "7"	200029130	405		F	ST	2		PD	05-540-1	CW	7 SF detached Homes.
13	Jesus Alvarez	805-947-9254	Unnamed	201011233	109	N	Hayes	AV	1		SUP	05-500-21	NG	1 SF Residence.
14	Olson Company	310-301-0029	Gateway Walk	204002026	1250	S	Oxnard	BL	1		GPA	05-620-07	JR	130 Including Detached/Attached SF Units and Mixed Use Units.
15	Paragon Communities	909-936-0963	Westwinds II	222005218	5482		Cypress	RD	1		SUP	05-500-24	JR	48 Condominium units at 5482 & 5536 Cypress Rd. Includes Proposed General Plan Amendment.
16	Sun Cal Companies	818-444-1600	Teal Club Specific Plan	183007009			Teal Club	RD	1	05-6-1	SUP	05-600-1	KM	Mixed Use Residential, 1050-1150 SF, Townhouses and Condominium Dwelling Units.
17	Alex Semchenko	805-487-7472	Unnamed	203004117	824	W	Wooley	RD	1		SUP	05-500-12	SM	Mixed use 343 Sq. Commercial & 950 Sq. ft. Residential units.
18	Pat McCarthy Construction	805-485-4646	Cypress Cove	222007015	5701		Cypress	RD	1	T5605	SUP	05-300-14	LW	32 Attached Condominiums. Also 5721 Cypress Rd.
19	Riverpark Apartment Ventures	805-981-3877	RiverPark Apartments	132011004					3	05-5477	DDR	05-200-03	JM	400 Apts on 14.86 acre site. Lots 4,5,7,& 8 of T5352-1.
20	Centex	661-799-1344	Oxnard Complex	215001010			Gonzales	RD	1		PD	05-540-3	CW	101 SF dwelling Units and a 10 Acre Park.
21	RiverPark Legacy, LLC	818-874-2300	T5538 District G	132011002					3	TSM 5538	DDR	05-200-02	JM	411 SF Attached Condominium Dwelling Units. APNs: 132011002,03,28.
22	Trimark Pacific	818-706-9797	North Shore	183001069		W	Fifth	ST	2	T5592	CDP	05-500-4	LW	183 SF Homes & 109 Detached Condos. NE Corner of Fifth S. & Harbor Bl. ALSO PZ 05-300-8 TM, APN183001070.
23	Juan Cervantes	805-207-1837	Cervantes Condo Complex	221006316		901	Cheyenne	WY	1		SUP	05-500-1	SM	5 Condominiums.
24	Roy Milbrandt	805-636-0185	Silver SFD	191008101	1031		Mandalay Beach	RD	4	05-3461	CDP	05-400-1	WW	Beachfront Single-Family Residence.
25	Walt Phillip	805-644-5594	Wallin SFD	191019034	685		Mandalay Beach	RD	4		CDP	05-400-3	WW	Beachfront Single-Family Residence.
26	Jim Sandefer	805-207-4894	Sandefer SFD	191005137	951		Mandalay Beach	RD	4	05-3724	CDP	05-400-5	WW	Beachfront Single-Family Residence.
27	Phillip Jon Brown	310-247-0725	Herzoff SFD	191009102	1115		Capri	WY	3		CDP	05-400-6	WW	Beachfront Single-Family Residence.
28	Vern Gill	805-382-9697	White Duplex	196003109	4931		Dunes	CR	1		CDP	05-400-7	WW	Coastal Duplex. 4931 & 4935 Dunes Cr.
29	RiverPark Legacy, LLC	818-874-2300	Unnamed	132011010					4	TSM 5536	DDR	04-200-12	JM	234 Attached Condos APNs: 132011010, 132012015.
30	RiverPark Legacy, LLC	818-874-2300	Unnamed	132012008					4	TSM 5537	DDR	04-200-13	JM	183 SF Homes. 142 Detached with 41 Attached Condos. APNs:132012008, 09, 10.

ID	DEVELOPER	PHONE	PROJECT	APN	NUMBER	DIR	STREET	SUFFIX	STATUS	PERMIT	TYPE	PZ	PLNR	NOTES
31	Lauterbach & Associates	805-988-0912	DAL- Villa San Lorenzo	222010201	130	W	Pleasant Valley	RD	2		SUP	04-500-29	JM	Mixed Use, 16 Condominiums/ 1044 SQFT Commercial. SWC Saviers Rd & Pleasant Valley Rd. Also 04-300-30 (TM).
32	Roy Milbrandt	805-636-0185	Beretta SFD	191042012	1621		Mandalay Beach	RD	3		CDP	04-400-16	WW	Beachfront Single-Family Residence.
33	Roy Milbrandt	805-636-0185	Weber SFD	191042001	1501		Mandalay Beach	RD	4	04-7175	CDP	04-400-15	WW	Beachfront Single-Family Residence.
34	Tucker Investments	818-223-9499	Rose/Pleasant Valley	224002028	4747	S	Rose	AV	1		SUP	04-500-03	KM	98 Condos/12 Live Work. Rose & Pleasant Valley.
35	Tucker Investments	818-223-9499	Victoria/Hemlock	187006009	1830	S	Victoria	AV	1		SUP	04-500-06	KM	130 Condos/17 Live Work. Victoria & Hemlock APN:1870060095,105.
36	Jim Sandefer	805-206-4894	Unnamed	191005140	965		Mandalay Beach	RD	4	04-2694	CDP	04-400-1	AG	1 SF Beachfront Home.
37	Roy Milbrandt, Architect	805-639-0185	McCormick	191005147	1025		Mandalay Beach	RD	4		CDP	04-400-10	AG	1 SF Beachfront Home.
38	Olson Development/Henry Wang	805-384-0143	Heritage Walk	202014309	651	S	A	ST	3	05-7148	SUP	04-500-3	AG	12 Residential Condos. 7th and "A" Street (651, 655, 657 A St).
39	Gary Oppenheimer	818-991-0511	Unnamed	191004120	721		Mandalay Beach	RD	4	04-2720	CDP	04-400-11	LW	1 SF Beachfront Home.
40	Todd Temanson/Harlyn Homes	805-981-3877	Aviara Lane	187003520			Belmont	LN	4	04-200-09	DDR	04-200-09	KM	28 SF Homes. Gonzales Road s/w Belmont Lane and Merion Way.
41	Martin Navarro	805-320-9210	Unnamed	200009119	1014	N	C	ST	4	04-1150	SUP	04-550-11	LW	1 SF Home.
42	Michael Faulconer	805-648-2394	Gonzales Condominium	139025003	457	W	Gonzales	RD	3		SUP	04-600-6	KM	36 Attached Condominiums.
43	Juan Cervantes	805-207-1837	Cervantes Condo Complex	222001129	5489		Saviers	RD	1		SUP	04-500-33	SM	9 Attached Condominiums.
44	PG Construction	818-551-1319	Unnamed	201012219	506		Cooper	RD	2		SUP	04-500-35	LW	Mixed Use, 4 apartments.
45	Douglas Peters	310-204-8950	Pickett Residence	191013237	1251		Capri	WY	3		CDP	04-400-18	CW	1 SF Home.
46	Chris Friedger	818-848-2803	Unnamed	191008131	1073		Mandalay Beach	RD	4		CDP	03-400-13	AG	Remodel/additions to existing SF Beachfront home.
47	El Dorado Carriage House	818-990-5084	Unnamed	191042001	1501		Mandalay Beach	RD	3	04-7175	CDP	03-400-6	LW	SF Beachfront Home.
48	Paragon Communities	310-301-0029	Unnamed	222001231			Cypress	RD	4	T5441	SUP	03-500-16	WW	159 Residential Condominiums. Saviers Road/Clara Street/Cypress.
49	Faulconer & Carawan	805-648-2394	Unnamed	179023038			Gonzales	RD	3		DDR	03-200-8	KM	54 Apartment Units located on NEC of Gonzales and Victoria Ave.
50	Shea Homes	818-222-2530	Cottages	183028001			Patterson	RD	4		PD	03-540-4	CW	52 Detached Condos. 5 Acre Site Near S/E Corner of Wooley & Patterson.
51	Comstock Homes	310-546-5781	Meadowcrest Homes	200009230	1111	N	Oxnard	BL	4	04-7432 & 05-1402	SUP	03-300-27	JM	50 Attached Condominium Dwelling Units.
52	Faulconer & Carawan	805-648-2394	Casas de la Playa	191010319			Wooley	RD	2		CDP	02-400-13	CW	9 SF Homes. Harbor & Wooley.
53	John Laing Homes	818-830-3360	Pfeiler Subdivision	215027604			Cesar Chavez	RD	4	5389	SUP	01-500-123, 124, 125	SM	232 SF Homes Plus Historic Homes, and Public Park PZ 01-500-123. PD, JM, ZC, GPA, ANNEX on 46 acres.
54	Ybanez Residence	805-639-0185	Unnamed	191013244	1421		Marine	WY	4	03-1403	CDP	01-500-14	LW	1 SF Beachfront Home.
55	American Housing	213-487-2400	Sycamore Senior Village	200029130	333	N	F	ST	4	03-4146	SUP	01-500-54	CW	229 Senior Housing units. Former St. John's Hospital.
56	Faulconer & Carawan	805-648-2394	Villa Cesar Chavez	222008256	381	E	Hueneme	RD	4	03-3558-3568	PD	01-500-61	CW	52 Apartments, 6 Detached SF Units. Multiple APNs.
57	D. R. Horton	805-382-9244	Seabridge	188011050			Victoria	AV	4	T5266	CDP	01-500-93	CW	276 SF dwelling Units, 432 Multi-family Dwelling Units, 169,000 SGFT Commercial, 240 Public Docks, and a 16 Acre Park. Located on SWC Victoria Ave & Wooley Rd.
58	John Laing Homes	818-267-3700	WhiteSails Westport	188011049			Tradewinds	DR	4		CDP	99-5-61	SM	Mixed Use, 88 Condominiums and Retail.
59	Budge & Associates	310-456-5905	None	191004134	839		Mandalay Beach	RD	4	02-1072	CDP	01-5-101	SM	3-Story Single Family Coastal Home.



Commercial Projects Map

Planning & Environmental Services

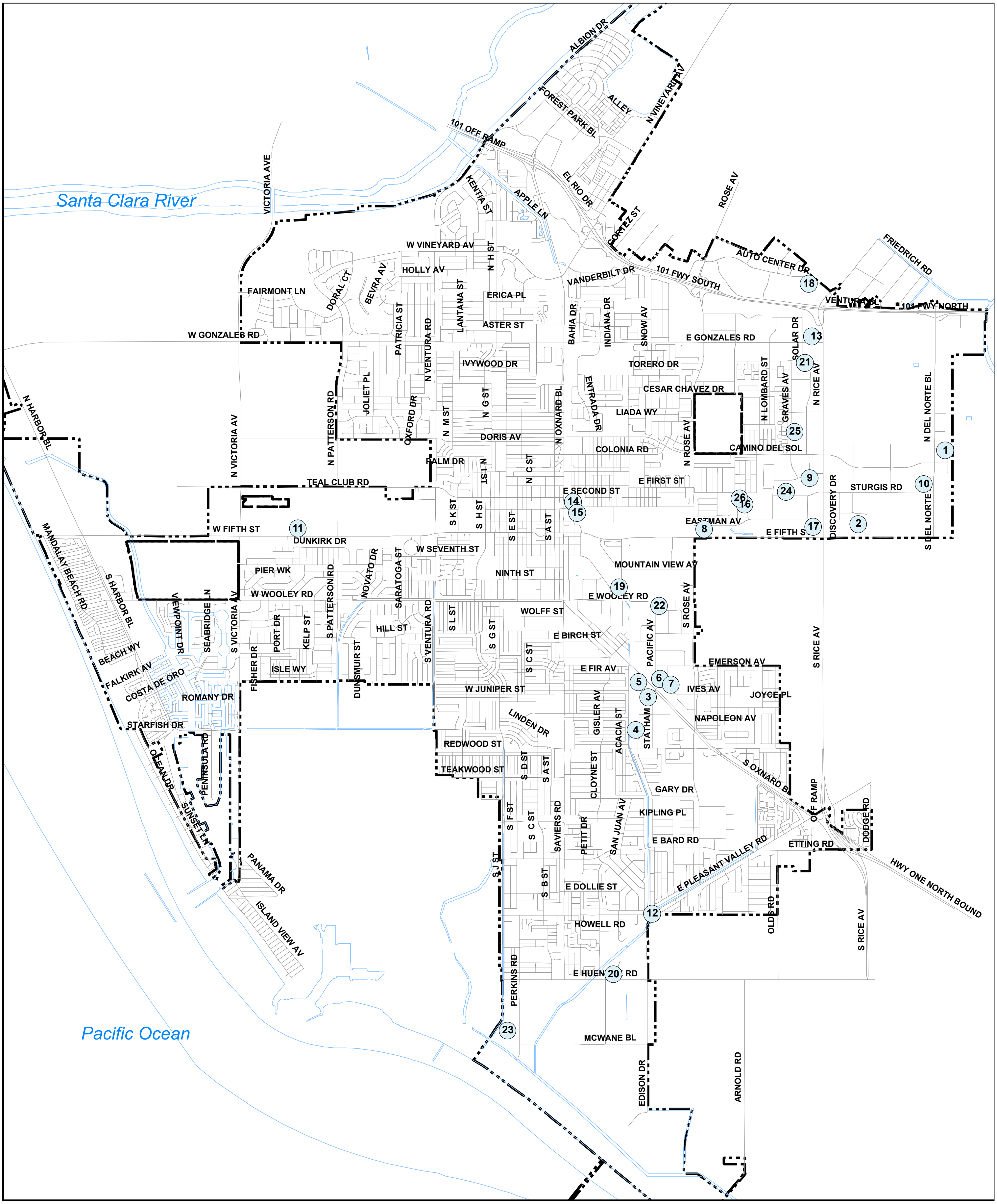
April 2006

City of Oxnard | **Commercial Project List** | Planning & Environmental Services

ID	DEVELOPER	PHONE	PROJECT	SQF	APN	Number	DIR	STREET	SUFFIX	STATUS	PERMIT	TYPE	PZ	PLNR	NOTES
1	Coastal Architects, Mike Sanchez	805-985-7654	Centerpoint Mall	20,000	203032009	2655		Saviers	RD	1		MJMD	06-550-4	JM	Centerpoint Mall Master plan phasing review and the proposed 20,000 sq. ft. administrative office Building
2	Felus E. Leon	310-821-2725	Chevron Gas Station	2668	205008048	2901		Saviers	RD	1		MJMD	06-550-2	JM	Convert service center with in existing gas station to a food mart with beer & wine sales.
3	Cal-Asia Property Developement	310-312-6698	Oxnard Boulevard & Saviers Shopping Center	28211	204006023	1117	S	Oxnard	BL	1		SUP	06-500-1	LW	Drug Store, Drive-thru fast Food & Retail. Also APN 2040060230.
4	Alvaro & Gladys Loyola	805-278-2804	Happy Face Family Day Care		200018616	710	N	H	ST	1		LFD	06-210-2	JB	Large family day care.
5	Melanie Yanagihara	805-984-4013	Unnamed		18502052	2916		Naples	DR	1		LFD	06-210-1	JR	Large family day care.
6	D.R. Horton	661-257-3399	Rancho Victoria	42400	185017005	3600	W	Fifth	ST	2		MJMD	05-550-2	CW	Mixed Use with 42,400 sq. ft of commercial.
7	Avion Development	619-243-2476	Channel Islands Center		142001034		N	Oxnard	Bl	1		PD	05-540-4	*AG*	Proposed 3 Towers Consisting of Residential Units & Mixed Use Commercial. 953 Residential Units on 8.67 Acres on the NW Corner of Oxnard Bl. & N. Vineyard Av.
8	Oxnard Plaza Associates	805-983-8674	North Plaza	7000	202010121			C	ST	2		SUP	05-500-25	AG	Mixed use project with 103 units and 7,000 sq. ft. of commercial, Located Between 4th & 5th Streets at C Street.
9	SDC-CT Properties	949-752-5115	Carriage Square/ Lowe's	181024	139025012	1911	N	Oxnard	BL	1		SUP	05-500-2	*LW*	Demolish existing shopping center; build new retail, office & restaurants. 1950 N. "C" St, 341 W. Gonzales Rd., & 1911 N. Oxnard Blvd.
10	Dragonfly LLC, Chris Kalla	805-751-1646	Emerald Professional Bldg.	8431	222001110	5577		Saviers	RD	1		SUP	05-500-10	*LW*	2-Story Commercial Building. Veterinarian & General Office NWC Saviers Rd & Hueneme Rd.
11	Layman & Associates	818-995-8952	Unnamed	7420	219003215	3450	S	Sturgis	RD	1		DDR	05-200-7	JR	Retail Building.
12	Irma Madrigal		Paseo Azteca	7000	202014512	618	S	A	ST	1		CBD	05-110-11	AG	Multi-tenant Retail Building with 10 Spaces.
13	Mark Pettit	805-988-0912	Taco Bell Renovation	-	200033403	1725	N	Oxnard	BL	2		SUP	04-550-13	*CW*	Demolition of existing restaurant and construction of a new one.
14	Brad Shockley	838-456-7212	St. John's Medical Office Building	65680	213003140	1600	N	Rose	AV	1		SUP	04-550-12	*CW*	3-story medical office building, 45,000 sq. ft.
15	Archdiocese of Los Angeles		Lady of Guadalupe Church	16800	201004107	500-530		Juanita	AV	2	N/A	SUP	04-540-2	*JM*	Construction of Church. General Plan Amendment & Zoning Change.
16	Vincent & Murphy	415-543-1399	Long John Silvers/A&W	2800	205044308	3451		Saviers	RD	3		SUP	04-500-9	*CW*	Restaurant with drive-thru.
17	Meridian Office Partners	805-383-2221	unnamed	7,599 2,906 2,906 4,545	213009022	1900		Outlet Center	DR	4	04-5066	SUP	04-500-6	*AG*	4 new office buildings. Outlet Center Drive & Gonzales Road, 1900 Outlet Center Drive. Multiple APNs.
18	PG Construction	805-240-9696	unnamed	3292	201012219	506		Cooper	RD	2		SUP	04-500-35	*LW*	Mixed-use, retail.
19	Lauterbach & Associates	805-988-0912	DAL-Villa San Lorenzo	1044	222010201	130	W	Pleasant Valley	RD	1		SUP	04-500-29	JM	Mixed use Commercial with 16 Residential Condominiums.
20	Bea Molina	805-963-0986	Ruby's Café	8000	201016016	348/350	S	Oxnard	BL	4		SUP	04-500-28	*AG*	Nightclub, restaurant.
21	Jim Thayer	949-831-8110	Victory Outreach Church	-	222010106	232	W	Pleasant Valley	RD	1		SUP	04-500-20	*LW*	Church in existing building.
22	Mutih Abduhai	818-843-1796	unnamed	5500	203006124	1111	S	C	ST	1		SUP	04-500-18	*JM*	Multi-tenant Commercial Center.
23	Kevin Williams	818-879-4800	Channel Pointe	29600	220031061	2801	S	Rose	AV	4		SUP	04-500-15	*WW*	4 new commercial buildings.
24	Lauterbach & Associates	805-988-0912	Trinity Baptist Church		216006107	450	N	Rose	AV	2		SUP	04-500-13	*CW*	400-seat church.
25	Heathcote & Assoc.	804-497-4700	St. Paul's Baptist	75000	220028205	1777		Statham	BL	4		SUP	04-500-10	*AG*	Church/Family Life Center. Emerson Ave./Pacific Ave. & Statham Blvd.
26	Michael Sacco	805-983-6800	Todey Lincoln Mercury	9800	144013306	1601	E	Ventura	BL	2			04-500-10	*CW*	Expansion and new showroom.
27	Martin Teitelbaum	805-383-2221	unnamed	74000	132010005	2775	N	Ventura	RD	3	05-5477	SUP TSM	04-200-6	*JM*	9 new office buildings.
28	Neal Subic & Associates	805-644-7340	Subic Office renovation	-	213003149	2103	E	Gonzales	RD	4			04-140-57	*WW*	Renovate an existing building. Includes Zone Change and Minor Mod.
29	Howard Shannon	805-967-5951	unnamed	12614	144012013	2400		Auto Center	DR	4	05-1472		03-550-11	*STAFF*	Adding 8 new buildings self storage.
30	Vladimir Elmanovich	818-986-0400	unnamed	8000	220004404	2141	E	Channel Islands	BL	3	05-5735	PD	03-500-32	*JM*	Multi-tenant retail center on .66-acre site.

Project Status: **1- Proposed 2-Approved 3Plan Check 4-Under Construction** **April 2006**

ID	DEVELOPER	PHONE	PROJECT	SQF	APN	Number	DIR	STREET	SUFFIX	STATUS	PERMIT	TYPE	PZ	PLNR	NOTES
31	Charm Robb	805-637-7765	Grand Stay Hotel	38143	213009017	2211	E	Gonzales	RD	4		SUP	03-500-26	*CW*	57-unit hotel on 2.3-acres.
32	City of Oxnard, Barbara Murray	805-385-7500	South Oxnard Public Library	27222	222016046	200	E	Bard	RD	4		SUP	03-500-26	*AG*	Public Library.
33	Neno Spondello	805-987-6921	Centennial Plaza (PHASE II)		202010439			A	ST	2		SUP	03-500-17	*AG*	4 New Retail Spaces.
34	Doug Off	805-988-0300	Golden State Self Storage	64709	144015008	2100		Auto Center	DR	2		DDR	03-200-9	*JM*	Add 11 new self storage bldgs to existing self storage facility-Phase II.
35	Isidro Durazo	805-983-0511	unnamed	993	202018301	801	S	Oxnard	BL	3		SUP	02-500-8	*SD*	Remodel building for auto sales.
36	Michael Penrod	805-373-8808	Rose Ranch	89199	215006112		E	Gonzales	RD	1		SUP	02-500-29	*AG*	SW Corner of Gonzales & Rose. Retail shopping center.
37	Keith Speir	805-984-2353	unnamed	14282	183010025	2425	W	Fifth	SR	4	02-5643	SUP	02-500-28	*JM*	New Multi-tenant Commercial Building.
38	D.R. Horton	805-382-9244	Seabridge	169000	188011050			Victoria	RD	4		CDP	01-500-93	CW	Mixed Use with169,000 sq. ft. of commercial.
39	Duesenberg Investment	805-485-3193	Financial Tower III	309429	142002260	450	E	Esplanade	DR	2		SUP	15346	*KM*	15-story office building and parking garage.
40	David Stillmunks	805-240-1300	Jehovah's Witness Kingdom Hall	5500	222026601	601	E	Bard	RD	3	03-206	MJMD	U1010	*SM*	Addition to existing church.
41	David Kesterson-Lauterbauch & Assoc.	805-988-0912	Salvation Army	1700	203005031	622	W	Wooley	RD	3			MJMD TO U1509	*AG*	Add 1,700 SF of classroom and office.
42	John Laing	818-267-3700	WhiteSails at Westport	22000	188016007			Tradewinds	DR	4		CDP	99-5-61	SM	Retail.



Industrial Projects Map

0 0.5 1 2 3 4 Miles

Planning & Environmental Services

April 2006

City of Oxnard | **Industrial Project List** | **Planning & Environmental Services**

ID	DEVELOPER	PHONE	PROJECT	SQF	APN	NUMBER	DIR	NAME	SUFX	STAT	PERMIT	TYPE	PZ	PLNR	DESCRIPTION
1	Craig Lopez	805-484-4962	John Hall	2993	216015501	831		Spectrum	CR	1			05-550-07	JR	Addition to Existing Building
2	Trilliad Development-Valerie Draeger	805-379-9800	Haas Automation	211150	216016045	2700		Challenger	PL	2		SUP	05-500-7	KM	Industrial Building
3	Oxnard Industrial Partners	805-987-7654	Unnamed	18000	220001036	2201		Statham	BL	1		SUP	05-500-19	CW	Convert Existing Building to 18 Live/Work Condos and Zoning Text Amendment
4	Raznick Group	818-884-7770	Lion's Gate	124195	220022009	2751		Statham	BL	1		SUP	05-500-18	JR	Self-Storage & RV Storage
5	Vincent Dyer	818-882-1250	Unnamed	8920	220006018			Sunkist	CR	1		SUP	05-500-17	JM	Industrial Spec Building
6	Lanet Shaw Architects	310-479-4775	Unnamed	29797	220027201	1601		Ives	AV	1		SUP	05-500-16	JR	2 Industrial Buildings. Also 1635 Ives.
7	Thom Kestley	805-378-7188	Unnamed	9300	220027202	1610		Fiske	PL	1		SUP	05-500-13	JR	9,300 SQF Industrial Building.
8	Sunbelt Enterprises	805-604-0700	Rose & Eastman	33000	216018311			Eastman	AV	2		DDR	05-200-6	CW	Industrial Building.
9	Sunbelt Enterprises	805-604-6700	Seagate	149786	216020505			Rice	AV	2		DDR	05-200-5	LW	3 Office/Industrial Warehouse Buildings. 216020505, 216020506, 216020513
10	BLT Enterprises	805-278-8230	Unnamed	83059	216015411	3301		Sturgis	RD	1		DDR	05-200-4	JR	2 Spec Industrial Buildings
11	Mark Herman	805-985-0220	Unnamed	180882	183009064	3291	W	Fifth	ST	3	05-233	SUP	04-500-8	NG	10 New Self-Storage Buildings
12	City of Oxnard-Water Division	805-385-8136	Blending Station No. 5	238	224002020			Pleasant Valley	RD	2		SUP	04-500-34	CW	Blending Station.
13	Sunbelt Enterprises	805-604-0700	Sunbelt Professional Center	107104	213005211			Solar	AV	3		SUP	04-500-32	LW	Two office buildings. N. of Gonzales Rd. between Rice Ave. & Solar Dr.
14	Water Division	805-385-8139	Desalter	10,136 & 2,376	201011306	251	S	Hayes	AV	4		SUP	04-500-12	CW	New Desalter and Chemical Building
15	Water Division	805-385-8139	South Water Yard	16955	201017028	250	E	Third	ST	4			04-500-12	CW	Add 3 New Walls and Facility Buildings
16	Martin Teitelbaum	805-383-2221x101	Unnamed	20000	216019201			Cabot	PL	3	05-243	DDR	04-200-7	KM	7 Industrial Buildings Located on Cabot Pl., Hearst Dr., & Irving Dr.
17	Steven Olander	805-388-2724	Cal Coast Machinery Phase II	35280	216019312			Rice	AV	1		DDR	04-200-11	JR	Multi-tenant Industrial Building. Corner of Eastman Ave. & Rice Ave. Also 21609312
18	Gibbs International	805-485-0551	Gibbs Truck Service	17000	144015007			Auto Center	DR	4		DDR	04-200-04	KM	Industrial Building on 2.72 Acre-Site
19	Seyed Azimi	805-486-8010	Unnamed		201020018	931		Richmond	AV	1		SUP	03-520-1	JM	Outdoor Vehicle Parking & Service Yard
20	Barry Carlisi	818-706-3997	Unnamed	40392	223004404	720		Arcturus		4	04-7176	SUP	03-500-31	WW	2 Industrial Buildings
21	City of Oxnard-Water Division	805-385-8136	Blending Station No. 3	4300	213007006	1700		Solar	DR	2		SUP	03-500-30	CW	4 Wells and Water Blending Facility
22	Channel Islands Equity	805-383-2221	Wooley Phase II	39081	220029401	1400	E	Wooley	RD	3	05/66	SUP	03-500-21	AG	Two Industrial Buildings
23	City of Oxnard	805-385-3517	Wastewater Headworks	46760	231009110	5751	S	Perkins	RD	4	03-7623	CDP	03-400-9	LW	Headworks for Waste Water Facility & Trunk Sewer Line. VARIOUS SITES
24	Industrial Park Assoc.	805-983-2200	Unnamed	114100	216020511	3000		Camino Del Sol	AV	2		SUP	03-200-11	JM	Industrial Building
25	Dick Searl	805-484-3714	Unnamed	87451	214004106	710		Graves	AV	3	04-2122 & 04-2128	SUP	02-500-25	JM	2 Industrial Buildings. Also 720 Graves Av.
26	Cabot Lane, LLC	805-523-0253	Unnamed	24118	216019110	2011		Cabot	PL	3	04-4741-4743	DDR	02-200-12	JM	3 Multi-Tenant Industrial Building. 2011-2031 Cabot Pl.

Project Status: **1- Proposed 2-Approved 3-Plan Check 4-Under Construction** **April 2006**

Appendix E
Agricultural Resource Documents

polygon_ty	description	county_nam	Area (sq ft)	Acres
S	farmland of statewide importance	ven	14063537	322.9
P	prime farmland	ven	4275696	98.2
S	farmland of statewide importance	ven	35688	0.8
P	prime farmland	ven	67399	1.5
D	urban or built up land	ven	53556	1.2

NOTES

Calculation of the Land Evaluation (LE) Score

Part 1. Land Capability Classification (LCC) Score:

(1) Determine the total acreage of the project.

(2) Determine the soil types within the project area and enter them in **Column A** of the **Land Evaluation Worksheet** provided on page 2-A.

(3) Calculate the total acres of each soil type and enter the amounts in **Column B**.

(4) Divide the acres of each soil type (**Column B**) by the total acreage to determine the proportion of each soil type present. Enter the proportion of each soil type in **Column C**.

(5) Determine the LCC for each soil type from the applicable Soil Survey and enter it in **Column D**.

(6) From the LCC Scoring Table below, determine the point rating corresponding to the LCC for each soil type and enter it in **Column E**.

LCC Scoring Table

LCC Class	I	IIe	IIs,w	IIIe	IIIs,w	IVe	IVs,w	V	VIe,s,w	VIIe,s,w	VIII
Points	100	90	80	70	60	50	40	30	20	10	0

(7) Multiply the proportion of each soil type (**Column C**) by the point score (**Column E**) and enter the resulting scores in **Column F**.

(8) Sum the LCC scores in **Column F**.

(9) Enter the LCC score in box <1> of the **Final LESA Score Sheet** on page 10-A.

Part 2. Storie Index Score:

(1) Determine the Storie Index rating for each soil type and enter it in **Column G**.

(2) Multiply the proportion of each soil type (**Column C**) by the Storie Index rating (**Column G**) and enter the scores in **Column H**.

(3) Sum the Storie Index scores in **Column H** to gain the Storie Index Score.

(4) Enter the Storie Index Score in box <2> of the **Final LESA Score Sheet** on page 10-A.

Land Evaluation Worksheet

Land Capability Classification (LCC) and Storie Index Scores

A	B	C	D	E	F	G	H
Soil Map Unit	Project Acres	Proportion of Project Area	LCC	LCC Rating	LCC Score	Storie Index	Storie Index Score
Cc	186.8	0.44	IIw	80	35.2	71	31.2
Cd	62.5	0.15	IIw	80	12.0	75	11.3
Ce	31.0	0.07	IIw	80	5.6	71	5.0
Hm	73.1	0.17	IIw	80	13.6	47	8.0
Hn	26.8	0.06	IIw	80	4.8	60	3.6
Pa	44.6	0.11	IIw	80	8.8	60	6.6
Totals	424.8	(Must Sum to 1.0)		***LCC Total Score***	80	***Storie Index Total Score***	65.7

Site Assessment Worksheet 1.

Project Size Score

	I	J	K
	LCC Class I - II	LCC Class III	LCC Class IV - VIII
	186.8		
	62.5		
	31.0		
	73.1		
	26.8		
	44.6		
Total Acres	424.8		
Project Size Scores	100		

Highest Project Size Score 100

NOTES

Calculation of the Site Assessment (SA) Score

Part 1. Project Size Score:.

(1) Using **Site Assessment Worksheet 1** provided on page 2-A, enter the acreage of each soil type from **Column B** in the **Column - I, J or K** - that corresponds to the LCC for that soil. (Note: While the Project Size Score is a component of the Site Assessment calculations, the score sheet is an extension of data collected in the Land Evaluation Worksheet, and is therefore displayed beside it).

(2) Sum **Column I** to determine the total amount of class I and II soils on the project site.

(3) Sum **Column J** to determine the total amount of class III soils on the project site.

(4) Sum **Column K** to determine the total amount of class IV and lower soils on the project site.

(5) Compare the total score for each LCC group in the Project Size Scoring Table below and determine which group receives the highest score.

Project Size Scoring Table

Class I or II		Class III		Class IV or Lower	
Acreage	Points	Acreage	Points	Acreage	Points
>80	100	>160	100	>320	100
60-79	90	120-159	90	240-319	80
40-59	80	80-119	80	160-239	60
20-39	50	60-79	70	100-159	40
10-19	30	40-59	60	40-99	20
10<	0	20-39	30	40<	0
		10-19	10		
		10<	0		

(6) Enter the **Project Size Score** (the highest score from the three LCC categories) in box <3> of the **Final LESA Score Sheet** on page 10-A.

NOTES

Part 2. Water Resource Availability Score:

(1) Determine the type(s) of irrigation present on the project site, including a determination of whether there is dryland agricultural activity as well.

(2) Divide the site into portions according to the type or types of irrigation or dryland cropping that is available in each portion. Enter this information in **Column B** of **Site Assessment Worksheet 2. - Water Resources Availability**.

(3) Determine the proportion of the total site represented for each portion identified, and enter this information in **Column C**.

(4) Using the Water Resources Availability Scoring Table, identify the option that is most applicable for each portion, based upon the feasibility of irrigation in drought and non-drought years, and whether physical or economic restrictions are likely to exist. Enter the applicable Water Resource Availability Score into **Column D**.

(5) Multiply the Water Resource Availability Score for each portion by the proportion of the project area it represents to determine the weighted score for each portion in **Column E**.

(6) Sum the scores for all portions to determine the project's total Water Resources Availability Score

(7) Enter the Water Resource Availability Score in box <4> of the **Final LESA Score Sheet** on page 10-A.

Site Assessment Worksheet 2. - Water Resources Availability

A	B	C	D	E
Project Portion	Water Source	Proportion of Project Area	Water Availability Score	Weighted Availability Score (C x D)
1	Wells + Agency	1	85	85
2				
3				
4				
5				
6				
		(Must Sum to 1.0)	***Total Water Resource Score***	85

Water Resource Availability Scoring Table

Option	Non-Drought Years			Drought Years			WATER RESOURCE SCORE
	RESTRICTIONS			RESTRICTIONS			
	Irrigated Production Feasible?	Physical Restrictions ?	Economic Restrictions ?	Irrigated Production Feasible?	Physical Restrictions ?	Economic Restrictions ?	
1	YES	NO	NO	YES	NO	NO	100
2	YES	NO	NO	YES	NO	YES	95
3	YES	NO	YES	YES	NO	YES	90
4	YES	NO	NO	YES	YES	NO	85
5	YES	NO	NO	YES	YES	YES	80
6	YES	YES	NO	YES	YES	NO	75
7	YES	YES	YES	YES	YES	YES	65
8	YES	NO	NO	NO	-- --	-- --	50
9	YES	NO	YES	NO	-- --	-- --	45
10	YES	YES	NO	NO	-- --	-- --	35
11	YES	YES	YES	NO	-- --	-- --	30
12	Irrigated production not feasible, but rainfall adequate for dryland production in both drought and non-drought years						25
13	Irrigated production not feasible, but rainfall adequate for dryland production in non-drought years (but not in drought years)						20
14	Neither irrigated nor dryland production feasible						0

NOTES

Part 3. Surrounding Agricultural Land Use Score:

(1) Calculate the project's Zone of Influence (ZOI) as follows:

(a) a rectangle is drawn around the project such that the rectangle is the smallest that can completely encompass the project area.

(b) a second rectangle is then drawn which extends one quarter mile on all sides beyond the first rectangle.

(c) The ZOI includes all parcels that are contained within or are intersected by the second rectangle, less the area of the project itself.

(2) Sum the area of all parcels to determine the total acreage of the ZOI.

(3) Determine which parcels are in agricultural use and sum the areas of these parcels

(4) Divide the area in agriculture found in step (3) by the total area of the ZOI found in step (2) to determine the percent of the ZOI that is in agricultural use.

(5) Determine the Surrounding Agricultural Land Score utilizing the Surrounding Agricultural Land Scoring Table below.

Surrounding Agricultural Land Scoring Table

Percent of ZOI in Agriculture	Surrounding Agricultural Land Score
90-100	100
80-89	95
70-79	90
65-69	85
60-64	80
55-59	70
50-54	60
45-49	50
40-44	40
35-39	30
30-34	20
20-29	10
<19	0

(5) Enter the Surrounding Agricultural Land Score in box <5> of the **Final LESA Score Sheet** on page 10-A.

Site Assessment Worksheet 3.
Surrounding Agricultural Land and Surrounding Protected Resource Land

A	B	C	D	E	F	G
Zone of Influence					Surrounding Agricultural Land Score (From Table)	Surrounding Protected Resource Land Score (From Table)
Total Acres	Acres in Agriculture	Acres of Protected Resource Land	Percent in Agriculture (A/B)	Percent Protected Resource Land (A/C)		
491.6	439.1	399.4	49	45	50	50

NOTES

Part 4. Protected Resource Lands Score:

The Protected Resource Lands scoring relies upon the same Zone of Influence information gathered in Part 3, and figures are entered in Site Assessment Worksheet 3, which combines the surrounding agricultural and protected lands calculations.

(1) Use the total area of the ZOI calculated in Part 3. for the Surrounding Agricultural Land Use score.

(2) Sum the area of those parcels within the ZOI that are protected resource lands, as defined in the California Agricultural LESA Guidelines.

(3) Divide the area that is determined to be protected in Step (2) by the total acreage of the ZOI to determine the percentage of the surrounding area that is under resource protection.

(4) Determine the Surrounding Protected Resource Land Score utilizing the Surrounding Protected Resource Land Scoring Table below.

Surrounding Protected Resource Land Scoring Table

Percent of ZOI Protected	Protected Resource Land Score
90-100	100
80-89	95
70-79	90
65-69	85
60-64	80
55-59	70
50-54	60
45-49	50
40-44	40
35-39	30
30-34	20
20-29	10
<20	0

(5) Enter the Protected Resource Land score in box <6> of the **Final LESA Score Sheet** on page 10-A.

NOTES

Final LESA Score Sheet

Calculation of the Final LESA Score:

(1) Multiply each factor score by the factor weight to determine the weighted score and enter in Weighted Factor Scores column.
(2) Sum the weighted factor scores for the LE factors to determine the total LE score for the project.
(3) Sum the weighted factor scores for the SA factors to determine the total SA score for the project.
(4) Sum the total LE and SA scores to determine the Final LESA Score for the project.

	Factor Scores	Factor Weight	Weighted Factor Scores
LE Factors			
Land Capability Classification	<1> 80	0.25	20.0
Storie Index	<2> 65.7	0.25	16.4
LE Subtotal		***0.50***	36.4
SA Factors			
Project Size	<3> 100	0.15	15.0
Water Resource Availability	<4> 85	0.15	12.8
Surrounding Agricultural Land	<5> 50	0.15	7.5
Protected Resource Land	<6> 50	0.05	2.5
SA Subtotal		***0.50***	37.8
		Final LESA Score	74.2

For further information on the scoring thresholds under the California Agricultural LESA Model, consult Section 4 of the Instruction Manual.

NOTES

Calculation of the Land Evaluation (LE) Score

Part 1. Land Capability Classification (LCC) Score:

(1) Determine the total acreage of the project.
(2) Determine the soil types within the project area and enter them in **Column A** of the **Land Evaluation Worksheet** provided on page 2-A.
(3) Calculate the total acres of each soil type and enter the amounts in **Column B**.
(4) Divide the acres of each soil type (**Column B**) by the total acreage to determine the proportion of each soil type present. Enter the proportion of each soil type in **Column C**.
(5) Determine the LCC for each soil type from the applicable Soil Survey and enter it in **Column D**.
(6) From the LCC Scoring Table below, determine the point rating corresponding to the LCC for each soil type and enter it in **Column E**.

LCC Scoring Table

LCC Class	I	IIe	IIs,w	IIIe	IIIs,w	IVe	IVs,w	V	VIe,s,w	VIIe,s,w	VIII
Points	100	90	80	70	60	50	40	30	20	10	0

(7) Multiply the proportion of each soil type (**Column C**) by the point score (**Column E**) and enter the resulting scores in **Column F**.
(8) Sum the LCC scores in **Column F**.
(9) Enter the LCC score in box <1> of the **Final LESA Score Sheet** on page 10-A.

Part 2. Storie Index Score:

(1) Determine the Storie Index rating for each soil type and enter it in **Column G**.
(2) Multiply the proportion of each soil type (**Column C**) by the Storie Index rating (**Column G**) and enter the scores in **Column H**.
(3) Sum the Storie Index scores in **Column H** to gain the Storie Index Score.
(4) Enter the Storie Index Score in box <2> of the **Final LESA Score Sheet** on page 10-A.

Land Evaluation Worksheet

Land Capability Classification (LCC) and Storie Index Scores

A	B	C	D	E	F	G	H
Soil Map Unit	Project Acres	Proportion of Project Area	LCC	LCC Rating	LCC Score	Storie Index	Storie Index Score
Cc	186.8	44.0%	IIw	80	35.2	71	31.2
Cd	62.5	14.7%	IIw	80	11.8	75	11.0
Ce	31.0	7.3%	IIw	80	5.8	71	5.2
Hm	73.1	17.2%	IIw	80	13.8	47	8.1
Hn	26.8	6.3%	IIw	80	5.0	60	3.8
Pa	44.6	10.5%	IIw	80	8.4	60	6.3
Totals	424.8	(Must Sum to 1.0)		***LCC Total Score***	80	***Storie Index Total Score***	65.6

Site Assessment Worksheet 1.

Project Size Score

	I	J	K
	LCC Class I - II	LCC Class III	LCC Class IV - VIII
Total Acres	424.8		
Project Size Scores	100		

Highest Project Size Score 100

NOTES

Calculation of the Site Assessment (SA) Score

Part 1. Project Size Score:.

(1) Using **Site Assessment Worksheet 1** provided on page 2-A, enter the acreage of each soil type from **Column B** in the **Column - I, J or K** - that corresponds to the LCC for that soil. (Note: While the Project Size Score is a component of the Site Assessment calculations, the score sheet is an extension of data collected in the Land Evaluation Worksheet, and is therefore displayed beside it).
(2) Sum **Column I** to determine the total amount of class I and II soils on the project site.
(3) Sum **Column J** to determine the total amount of class III soils on the project site.
(4) Sum **Column K** to determine the total amount of class IV and lower soils on the project site.
(5) Compare the total score for each LCC group in the Project Size Scoring Table below and determine which group receives the highest score.

Project Size Scoring Table

Class I or II		**Class III**		**Class IV or Lower**	
Acreage	Points	Acreage	Points	Acreage	Points
>80	100	>160	100	>320	100
60-79	90	120-159	90	240-319	80
40-59	80	80-119	80	160-239	60
20-39	50	60-79	70	100-159	40
10-19	30	40-59	60	40-99	20
10<	0	20-39	30	40<	0
		10-19	10		
		10<	0		

(6) Enter the **Project Size Score** (the highest score from the three LCC categories) in box <3> of the **Final LESA Score Sheet** on page 10-A.

NOTES

Part 2. Water Resource Availability Score:

(1) Determine the type(s) of irrigation present on the project site, including a determination of whether there is dryland agricultural activity as well.

(2) Divide the site into portions according to the type or types of irrigation or dryland cropping that is available in each portion. Enter this information in **Column B** of **Site Assessment Worksheet 2. - Water Resources Availability**.

(3) Determine the proportion of the total site represented for each portion identified, and enter this information in **Column C**.

(4) Using the Water Resources Availability Scoring Table, identify the option that is most applicable for each portion, based upon the feasibility of irrigation in drought and non-drought years, and whether physical or economic restrictions are likely to exist. Enter the applicable Water Resource Availability Score into **Column D**.

(5) Multiply the Water Resource Availability Score for each portion by the proportion of the project area it represents to determine the weighted score for each portion in **Column E**.

(6) Sum the scores for all portions to determine the project's total Water Resources Availability Score

(7) Enter the Water Resource Availability Score in box <4> of the **Final LESA Score Sheet** on page 10-A.

Site Assessment Worksheet 2. - Water Resources Availability

A Project Portion	B Water Source	C Proportion of Project Area	D Water Availability Score	E Weighted Availability Score (C x D)
1	Wells + Agency	1	85	85
2				
3				
4				
5				
6				
		(Must Sum to 1.0)	***Total Water Resource Score***	85

Water Resource Availability Scoring Table

Option	Non-Drought Years			Drought Years			WATER RESOURCE SCORE
	RESTRICTIONS			RESTRICTIONS			
	Irrigated Production Feasible?	Physical Restrictions ?	Economic Restrictions ?	Irrigated Production Feasible?	Physical Restrictions ?	Economic Restrictions ?	
1	YES	NO	NO	YES	NO	NO	100
2	YES	NO	NO	YES	NO	YES	95
3	YES	NO	YES	YES	NO	YES	90
4	YES	NO	NO	YES	YES	NO	85
5	YES	NO	NO	YES	YES	YES	80
6	YES	YES	NO	YES	YES	NO	75
7	YES	YES	YES	YES	YES	YES	65
8	YES	NO	NO	NO	--	--	50
9	YES	NO	YES	NO	--	--	45
10	YES	YES	NO	NO	--	--	35
11	YES	YES	YES	NO	--	--	30
12	Irrigated production not feasible, but rainfall adequate for dryland production in both drought and non-drought years						25
13	Irrigated production not feasible, but rainfall adequate for dryland production in non-drought years (but not in drought years)						20
14	Neither irrigated nor dryland production feasible						0

NOTES

Part 3. Surrounding Agricultural Land Use Score:

(1) Calculate the project's Zone of Influence (ZOI) as follows:

(a) a rectangle is drawn around the project such that the rectangle is the smallest that can completely encompass the project area.

(b) a second rectangle is then drawn which extends one quarter mile on all sides beyond the first rectangle.

(c) The ZOI includes all parcels that are contained within or are intersected by the second rectangle, less the area of the project itself.

(2) Sum the area of all parcels to determine the total acreage of the ZOI.

(3) Determine which parcels are in agricultural use and sum the areas of these parcels

(4) Divide the area in agriculture found in step (3) by the total area of the ZOI found in step (2) to determine the percent of the ZOI that is in agricultural use.

(5) Determine the Surrounding Agricultural Land Score utilizing the Surrounding Agricultural Land Scoring Table below.

Surrounding Agricultural Land Scoring Table

Percent of ZOI in Agriculture	Surrounding Agricultural Land Score
90-100	100
80-89	95
70-79	90
65-69	85
60-64	80
55-59	70
50-54	60
45-49	50
40-44	40
35-39	30
30-34	20
20-29	10
<19	0

(5) Enter the Surrounding Agricultural Land Score in box <5> of the **Final LESA Score Sheet** on page 10-A.

Site Assessment Worksheet 3.

Surrounding Agricultural Land and Surrounding Protected Resource Land

A	B	C	D	E	F	G
Zone of Influence					Surrounding Agricultural Land Score (From Table)	Surrounding Protected Resource Land Score (From Table)
Total Acres	Acres in Agriculture	Acres of Protected Resource Land	Percent in Agriculture (A/B)	Percent Protected Resource Land (A/C)		
891.6	439.1	399.1	49	44.8	50	40

NOTES

Part 4. Protected Resource Lands Score:

The Protected Resource Lands scoring relies upon the same Zone of Influence information gathered in Part 3, and figures are entered in Site Assessment Worksheet 3, which combines the surrounding agricultural and protected lands calculations.

(1) Use the total area of the ZOI calculated in Part 3. for the Surrounding Agricultural Land Use score.

(2) Sum the area of those parcels within the ZOI that are protected resource lands, as defined in the California Agricultural LESA Guidelines.

(3) Divide the area that is determined to be protected in Step (2) by the total acreage of the ZOI to determine the percentage of the surrounding area that is under resource protection.

(4) Determine the Surrounding Protected Resource Land Score utilizing the Surrounding Protected Resource Land Scoring Table below.

Surrounding Protected Resource Land Scoring Table

Percent of ZOI Protected	Protected Resource Land Score
90-100	100
80-89	95
70-79	90
65-69	85
60-64	80
55-59	70
50-54	60
45-49	50
40-44	40
35-39	30
30-34	20
20-29	10
<20	0

(5) Enter the Protected Resource Land score in box <6> of the **Final LESA Score Sheet** on page 10-A.

NOTES

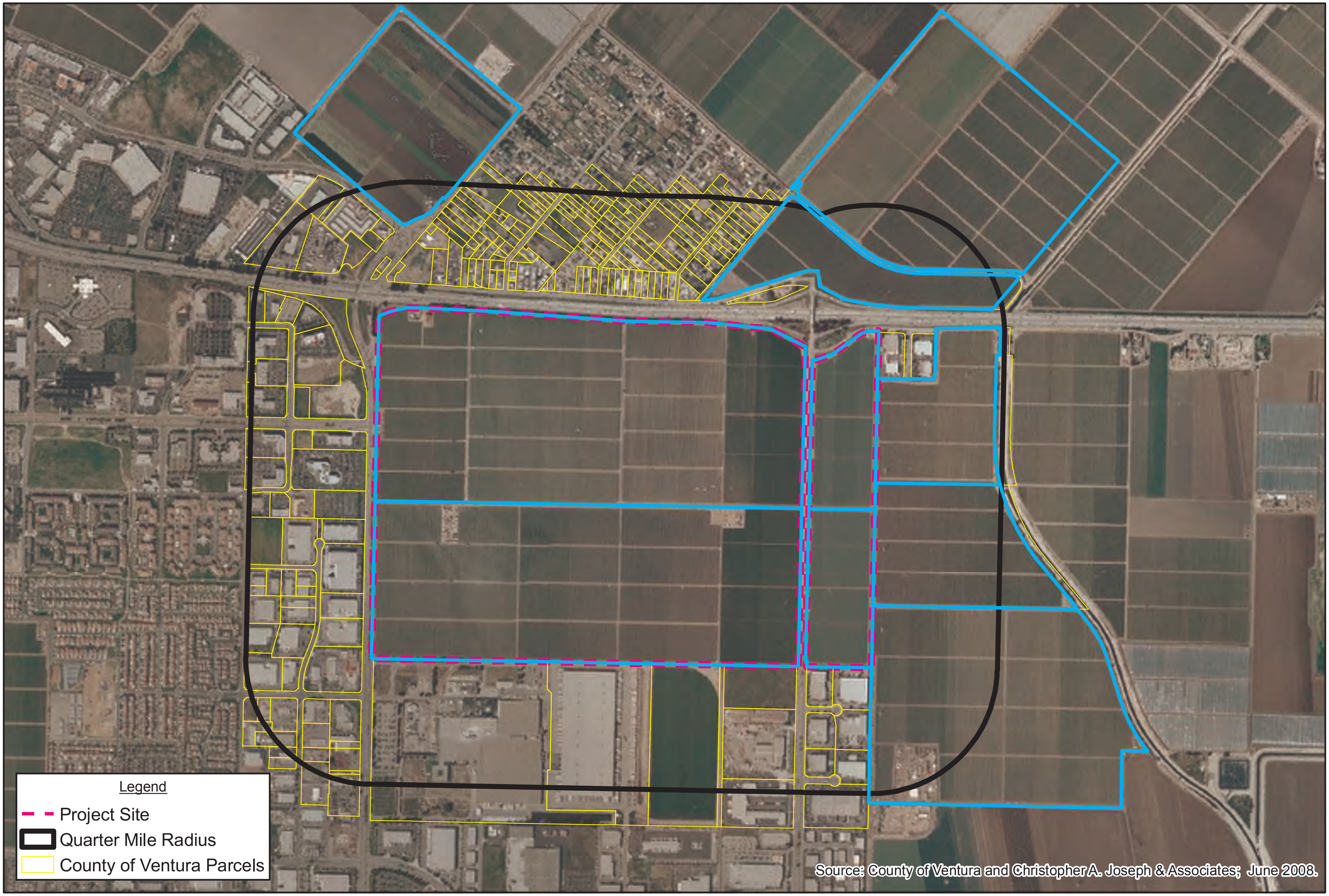
Final LESA Score Sheet

Calculation of the Final LESA Score:

(1) Multiply each factor score by the factor weight to determine the weighted score and enter in Weighted Factor Scores column.
(2) Sum the weighted factor scores for the LE factors to determine the total LE score for the project.
(3) Sum the weighted factor scores for the SA factors to determine the total SA score for the project.
(4) Sum the total LE and SA scores to determine the Final LESA Score for the project.

	Factor Scores	Factor Weight	Weighted Factor Scores
LE Factors			
Land Capability Classification	<1> 80	0.25	20.0
Storie Index	<2> 65.6	0.25	16.4
LE Subtotal		***0.50***	36.4
SA Factors			
Project Size	<3> 100	0.15	15.0
Water Resource Availability	<4> 85	0.15	12.8
Surrounding Agricultural Land	<5> 50	0.15	7.5
Protected Resource Land	<6> 40	0.05	2.0
SA Subtotal		***0.50***	37.3
		Final LESA Score	73.7

For further information on the scoring thresholds under the California Agricultural LESA Model, consult Section 4 of the Instruction Manual.



CHRISTOPHER A. JOSEPH & ASSOCIATES
Environmental Planning and Research

Sakioka Farms
Parcel Map

PARCEL_	PARCEL_ID	PID	GR_CR_DATE	AP_CR_DATE	PERIMETER	Acres	Use
194222	2	217611	19980505	19980401	6662.57685429000	64.9	Agricultural - Offsite
194223	3	217612	19980505	19980401	9358.04919178000	124.2	Agricultural - Offsite
194241	26	217634	19980505	19980401	8666.92701154000	4.7	Agricultural - Offsite
194283	80	217681	19980505	19980401	7811.75248582000	33.8	Agricultural - Offsite
194438	254	217849	19980505	19980401	5898.76884475000	39.7	Agricultural - Offsite
194526	377	217966	19980505	19980401	6301.08524483000	49.1	Agricultural - Offsite
194533	395	217982	19980505	19980401	9421.08433378000	122.6	Agricultural - Offsite
194435	251	217846	19980505	19980401	12658.41273320000	200.6	Agricultural - Onsite
194441	257	217852	19980505	19980401	4910.77560681000	27.3	Agricultural - Onsite
194513	355	217945	19980505	19980401	4699.42635993000	26.3	Agricultural - Onsite
194604	472	218056	19980505	19980401	12269.99968570000	170.4	Agricultural - Onsite
194231	14	217622	19980505	19980401	798.35708612200	0.5	Non - Agricultural
194232	15	217623	19980505	19980401	901.72154195400	0.6	Non - Agricultural
194233	16	217624	19980505	19980401	760.45055019600	0.5	Non - Agricultural
194235	20	217628	19980505	19980401	954.21638390500	0.6	Non - Agricultural
194238	23	217631	19980505	19980401	403.98727517200	0.2	Non - Agricultural
194242	27	217635	19980505	19980401	684.52044674300	0.6	Non - Agricultural
194243	28	217636	19980505	19980401	761.45180175700	0.5	Non - Agricultural
194245	30	217638	19980505	19980401	761.77657709300	0.5	Non - Agricultural
194246	31	217639	19980505	19980401	962.40967811300	0.6	Non - Agricultural
194247	33	217640	19980505	19980401	766.31855840800	0.5	Non - Agricultural
194249	38	217643	19980505	19980401	985.97459721200	0.7	Non - Agricultural
194250	39	217644	19980505	19980401	1016.53425062000	0.8	Non - Agricultural
194251	40	217645	19980505	19980401	1315.75657058000	2.3	Non - Agricultural
194252	41	217646	19980505	19980401	986.26825172200	0.7	Non - Agricultural
194253	42	217647	19980505	19980401	406.12195996300	0.1	Non - Agricultural
194254	43	217648	19980505	19980401	1034.39530260000	0.8	Non - Agricultural
194255	45	217649	19980505	19980401	1071.63400406000	1.0	Non - Agricultural
194256	46	217650	19980505	19980401	757.86689282600	0.5	Non - Agricultural
194257	47	217651	19980505	19980401	760.45457839400	0.5	Non - Agricultural
194271	65	217666	19980505	19980401	759.92038254300	0.5	Non - Agricultural
194272	68	217669	19980505	19980401	536.09345105700	0.3	Non - Agricultural
194273	69	217670	19980505	19980401	588.23258968000	0.2	Non - Agricultural
194274	70	217671	19980505	19980401	453.05610041800	0.2	Non - Agricultural
194276	72	217673	19980505	19980401	901.99309800000	0.7	Non - Agricultural
194277	73	217674	19980505	19980401	452.70178864200	0.3	Non - Agricultural
194278	74	217675	19980505	19980401	986.87260592000	0.7	Non - Agricultural
194279	76	217677	19980505	19980401	739.91548937400	0.4	Non - Agricultural
194280	77	217678	19980505	19980401	384.47775812700	0.2	Non - Agricultural
194281	78	217679	19980505	19980401	791.06206250300	0.6	Non - Agricultural
194284	81	217682	19980505	19980401	970.07151764100	0.5	Non - Agricultural
194285	82	217683	19980505	19980401	396.73878522000	0.2	Non - Agricultural
194287	84	217685	19980505	19980401	452.87204695600	0.3	Non - Agricultural
194289	86	217687	19980505	19980401	781.33788207800	0.6	Non - Agricultural
194290	87	217688	19980505	19980401	654.39174531200	0.4	Non - Agricultural
194292	89	217690	19980505	19980401	559.99947648700	0.3	Non - Agricultural
194293	90	217691	19980505	19980401	986.93098088300	0.7	Non - Agricultural
194294	91	217692	19980505	19980401	2236.26347679000	6.0	Non - Agricultural
194295	92	217693	19980505	19980401	729.85763940900	0.4	Non - Agricultural
194296	93	217694	19980505	19980401	420.68304275900	0.2	Non - Agricultural
194297	94	217695	19980505	19980401	448.65445171100	0.2	Non - Agricultural
194298	95	217696	19980505	19980401	1069.79282590000	0.7	Non - Agricultural
194299	96	217697	19980505	19980401	905.29792047300	1.0	Non - Agricultural
194300	97	217698	19980505	19980401	761.19444624000	0.5	Non - Agricultural
194301	98	217699	19980505	19980401	760.33383123700	0.5	Non - Agricultural
194302	99	217700	19980505	19980401	1182.35598158000	2.0	Non - Agricultural
194303	101	217702	19980505	19980401	534.15284940700	0.2	Non - Agricultural
194304	102	217703	19980505	19980401	460.84464552100	0.2	Non - Agricultural
194305	104	217704	19980505	19980401	1069.43281756000	1.0	Non - Agricultural
194306	105	217705	19980505	19980401	480.56082761000	0.3	Non - Agricultural
194307	106	217706	19980505	19980401	448.72400701700	0.2	Non - Agricultural
194309	108	217708	19980505	19980401	341.54436243900	0.2	Non - Agricultural
194311	110	217710	19980505	19980401	760.63993419900	0.5	Non - Agricultural
194313	113	217713	19980505	19980401	987.06282304800	0.7	Non - Agricultural
194314	114	217714	19980505	19980401	473.99921457800	0.2	Non - Agricultural
194315	116	217715	19980505	19980401	490.79957646900	0.3	Non - Agricultural
194316	117	217716	19980505	19980401	760.91668343300	0.5	Non - Agricultural
194317	118	217717	19980505	19980401	761.62853059700	0.5	Non - Agricultural
194319	120	217719	19980505	19980401	1068.85171582000	1.0	Non - Agricultural
194320	121	217720	19980505	19980401	1024.39686767000	0.9	Non - Agricultural
194321	123	217722	19980505	19980401	760.50914428400	0.5	Non - Agricultural
194322	124	217723	19980505	19980401	560.28360902600	0.3	Non - Agricultural
194323	126	217725	19980505	19980401	706.56172492700	0.7	Non - Agricultural
194324	128	217727	19980505	19980401	760.74403834300	0.5	Non - Agricultural
194325	129	217728	19980505	19980401	761.47443821700	0.5	Non - Agricultural
194326	130	217729	19980505	19980401	760.42065856800	0.5	Non - Agricultural
194327	131	217730	19980505	19980401	364.42944107200	0.2	Non - Agricultural
194328	133	217731	19980505	19980401	1034.62194542000	0.8	Non - Agricultural
194329	134	217732	19980505	19980401	619.06353973200	0.5	Non - Agricultural
194330	135	217733	19980505	19980401	756.07911040400	0.5	Non - Agricultural
194331	136	217734	19980505	19980401	742.10896952800	0.2	Non - Agricultural
194334	139	217737	19980505	19980401	772.60718515400	0.5	Non - Agricultural
194335	140	217738	19980505	19980401	777.47750533100	0.6	Non - Agricultural
194336	142	217740	19980505	19980401	989.44978241600	1.2	Non - Agricultural
194338	144	217742	19980505	19980401	717.95835990400	0.7	Non - Agricultural
194339	146	217743	19980505	19980401	451.62293581500	0.3	Non - Agricultural
194340	147	217744	19980505	19980401	765.30013392200	0.5	Non - Agricultural
194341	148	217745	19980505	19980401	452.16063967500	0.3	Non - Agricultural
194342	150	217747	19980505	19980401	513.93727970100	0.2	Non - Agricultural
194343	151	217748	19980505	19980401	1358.68497009000	2.2	Non - Agricultural
194344	152	217749	19980505	19980401	760.26000075600	0.5	Non - Agricultural
194345	153	217750	19980505	19980401	744.44571906800	0.4	Non - Agricultural
194347	155	217752	19980505	19980401	900.92683498800	1.0	Non - Agricultural
194348	156	217753	19980505	19980401	462.32483431400	0.3	Non - Agricultural
194349	157	217754	19980505	19980401	365.04909553700	0.2	Non - Agricultural
194350	158	217755	19980505	19980401	430.14288790900	0.2	Non - Agricultural
194351	159	217756	19980505	19980401	776.08234358200	0.6	Non - Agricultural
194352	160	217757	19980505	19980401	1240.51613570000	1.6	Non - Agricultural
194353	161	217758	19980505	19980401	387.86307857600	0.2	Non - Agricultural
194354	162	217759	19980505	19980401	684.33205322200	0.4	Non - Agricultural
194356	164	217761	19980505	19980401	450.44681611100	0.2	Non - Agricultural
194357	165	217762	19980505	19980401	462.67161464900	0.3	Non - Agricultural
194358	166	217763	19980505	19980401	821.82125793400	0.7	Non - Agricultural
194359	167	217764	19980505	19980401	450.41727962700	0.3	Non - Agricultural
194360	168	217765	19980505	19980401	1534.55861054000	2.9	Non - Agricultural
194361	169	217766	19980505	19980401	595.02802122400	0.4	Non - Agricultural
194362	170	217767	19980505	19980401	1088.27383802000	1.0	Non - Agricultural
194363	171	217768	19980505	19980401	632.13716311800	0.3	Non - Agricultural
194365	173	217770	19980505	19980401	440.45781570400	0.2	Non - Agricultural
194366	174	217771	19980505	19980401	760.78382999700	0.5	Non - Agricultural
194367	175	217772	19980505	19980401	1658.21982275000	2.5	Non - Agricultural
194368	176	217773	19980505	19980401	429.88504290100	0.2	Non - Agricultural
194369	177	217774	19980505	19980401	573.52899794800	0.4	Non - Agricultural
194370	178	217775	19980505	19980401	388.53234935600	0.2	Non - Agricultural
194371	179	217776	19980505	19980401	860.63057482200	0.6	Non - Agricultural
194373	181	217778	19980505	19980401	1074.75731054000	1.4	Non - Agricultural
194374	182	217779	19980505	19980401	740.57501315200	0.4	Non - Agricultural
194375	183	217780	19980505	19980401	440.65212095300	0.2	Non - Agricultural
194376	184	217781	19980505	19980401	747.78075808700	0.5	Non - Agricultural
194377	185	217782	19980505	19980401	450.61994772200	0.3	Non - Agricultural
194378	186	217783	19980505	19980401	532.49267340600	0.3	Non - Agricultural
194379	187	217784	19980505	19980401	426.17476935400	0.2	Non - Agricultural
194380	188	217785	19980505	19980401	524.70493841600	0.2	Non - Agricultural
194381	189	217786	19980505	19980401	664.34611613600	0.4	Non - Agricultural
194382	190	217787	19980505	19980401	1317.15458901000	2.4	Non - Agricultural
194383	191	217788	19980505	19980401	491.23337160300	0.3	Non - Agricultural
194384	192	217789	19980505	19980401	900.91777402800	1.0	Non - Agricultural
194385	193	217790	19980505	19980401	750.03293015900	0.5	Non - Agricultural
194387	196	217793	19980505	19980401	478.47668222900	0.2	Non - Agricultural
194388	198	217795	19980505	19980401	499.91524662500	0.3	Non - Agricultural
194389	199	217796	19980505	19980401	640.42622162800	0.4	Non - Agricultural
194390	200	217797	19980505	19980401	359.86879467900	0.2	Non - Agricultural
194394	205	217801	19980505	19980401	710.13498948100	0.5	Non - Agricultural
194395	206	217802	19980505	19980401	710.03282598500	0.5	Non - Agricultural
194396	207	217803	19980505	19980401	841.00213834400	0.8	Non - Agricultural
194397	208	217804	19980505	19980401	696.26978159700	0.5	Non - Agricultural
194398	209	217805	19980505	19980401	713.56321044400	0.5	Non - Agricultural
194399	210	217806	19980505	19980401	703.07434497300	0.5	Non - Agricultural
194400	211	217807	19980505	19980401	714.05871029400	0.5	Non - Agricultural
194401	212	217808	19980505	19980401	691.46612528500	0.4	Non - Agricultural
194402	213	217809	19980505	19980401	330.28258436500	0.1	Non - Agricultural
194403	215	217811	19980505	19980401	703.72576360200	0.5	Non - Agricultural
194404	216	217812	19980505	19980401	550.01043094800	0.3	Non - Agricultural
194405	217	217813	19980505	19980401	369.19192848500	0.2	Non - Agricultural
194408	220	217816	19980505	19980401	699.78810908000	0.4	Non - Agricultural
194409	222	217818	19980505	19980401	359.88601016000	0.2	Non - Agricultural
194410	223	217819	19980505	19980401	524.56763922700	0.3	Non - Agricultural
194411	224	217820	19980505	19980401	704.01702230300	0.5	Non - Agricultural
194412	225	217821	19980505	19980401	701.71507228100	0.5	Non - Agricultural
194413	226	217822	19980505	19980401	698.50198135100	0.4	Non - Agricultural
194414	227	217823	19980505	19980401	708.18422288500	0.5	Non - Agricultural
194417	231	217827	19980505	19980401	810.62337279000	0.8	Non - Agricultural
194420	234	217830	19980505	19980401	953.40478037300	0.8	Non - Agricultural
194421	236	217831	19980505	19980401	326.13039640300	0.1	Non - Agricultural
194422	237	217832	19980505	19980401	358.96765750200	0.2	Non - Agricultural
194423	238	217833	19980505	19980401	472.52647938300	0.3	Non - Agricultural
194426	241	217836	19980505	19980401	1778.98776391000	1.6	Non - Agricultural
194427	243	217838	19980505	19980401	1051.39929657000	1.4	Non - Agricultural
194428	244	217839	19980505	19980401	3318.38137080000	4.3	Non - Agricultural
194431	247	217842	19980505	19980401	983.13714528300	1.2	Non - Agricultural
194432	248	217843	19980505	19980401	993.28313882800	1.2	Non - Agricultural
194434	250	217845	19980505	19980401	1140.36644109000	1.7	Non - Agricultural
194437	253	217848	19980505	19980401	2092.81690717000	6.5	Non - Agricultural
194439	255	217850	19980505	19980401	779.26741682400	0.7	Non - Agricultural
194440	256	217851	19980505	19980401	1599.52035201000	3.2	Non - Agricultural
194443	259	217854	19980505	19980401	1512.01220264000	3.1	Non - Agricultural
194446	262	217857	19980505	19980401	1439.89530393000	2.7	Non - Agricultural
194454	272	217866	19980505	19980401	2816.48623444000	2.2	Non - Agricultural
194455	273	217867	19980505	19980401	2974.58776915000	2.9	Non - Agricultural
194456	274	217868	19980505	19980401	1653.92327210000	2.5	Non - Agricultural
194457	279	217872	19980505	19980401	1754.31945643000	3.4	Non - Agricultural
194467	290	217883	19980505	19980401	971.27184011500	1.2	Non - Agricultural
194482	309	217900	19980505	19980401	807.15630176100	0.9	Non - Agricultural
194485	316	217906	19980505	19980401	2400.91726964000	7.7	Non - Agricultural
194502	338	217928	19980505	19980401	3320.92596492000	3.0	Non - Agricultural
194505	341	217931	19980505	19980401	1211.45807599000	1.9	Non - Agricultural
194509	345	217935	19980505	19980401	1671.49430525000	3.7	Non - Agricultural
194510	346	217936	19980505	19980401	974.86828719600	1.4	Non - Agricultural
194511	347	217937	19980505	19980401	914.75047499000	1.2	Non - Agricultural
194519	365	217955	19980505	19980401	1719.85693950000	4.2	Non - Agricultural
194520	366	217956	19980505	19980401	1731.58507204000	4.1	Non - Agricultural
194521	367	217957	19980505	19980401	534.17749376000	0.2	Non - Agricultural
194522	368	217958	19980505	19980401	1403.34887956000	2.7	Non - Agricultural
194525	375	217964	19980505	19980401	1919.41715645000	5.4	Non - Agricultural
194527	381	217970	19980505	19980401	770.35231523300	0.9	Non - Agricultural
194528	382	217971	19980505	19980401	880.70660183700	1.0	Non - Agricultural
194530	388	217976	19980505	19980401	633.30399151000	0.5	Non - Agricultural
194531	389	217977	19980505	19980401	1420.98780401000	2.7	Non - Agricultural
194532	390	217978	19980505	19980401	1314.93537428000	2.4	Non - Agricultural
194537	399	217986	19980505	19980401	1568.59792614000	3.2	Non - Agricultural
194549	412	217998	19980505	19980401	1283.90033998000	2.3	Non - Agricultural
194603	471	218055	19980505	19980401	2079.64379271000	6.4	Non - Agricultural
194605	473	218057	19980505	19980401	2421.60597777000	7.9	Non - Agricultural
194606	476	218060	19980505	19980401	3486.38800031000	1.8	Non - Agricultural
194607	477	218061	19980505	19980401	1368.20785114000	2.6	Non - Agricultural
194608	478	218062	19980505	19980401	1688.10213575000	4.0	Non - Agricultural
194630	506	218085	19980505	19980401	791.17902731200	0.9	Non - Agricultural
194631	507	218086	19980505	19980401	766.12091096300	0.8	Non - Agricultural
194632	508	218087	19980505	19980401	1259.52546505000	2.2	Non - Agricultural
194633	511	218090	19980505	19980401	2993.43669046000	12.9	Non - Agricultural
194634	512	218091	19980505	19980401	1562.31076457000	3.4	Non - Agricultural
194635	513	218092	19980505	19980401	1341.20751898000	2.7	Non - Agricultural
194636	517	218095	19980505	19980401	1175.28320693000	1.2	Non - Agricultural
194637	519	218097	19980505	19980401	1241.18544733000	1.6	Non - Agricultural
194642	528	218106	19980505	19980401	798.73950697600	0.7	Non - Agricultural
194643	529	218107	19980505	19980401	872.48704302000	1.0	Non - Agricultural
194644	530	218108	19980505	19980401	1110.37966349000	1.7	Non - Agricultural
194645	531	218109	19980505	19980401	1199.65819585000	2.1	Non - Agricultural
194646	532	218110	19980505	19980401	1434.28688056000	2.9	Non - Agricultural
194656	545	218123	19980505	19980401	799.38907105500	0.8	Non - Agricultural
194660	551	218129	19980505	19980401	1487.24673294000	3.0	Non - Agricultural
194666	560	218137	19980505	19980401	2530.13366595000	8.8	Non - Agricultural
194668	564	218141	19980505	19980401	2274.77307203000	7.1	Non - Agricultural
213800	95087	240806	19980825	19980529	870.85096009400	1.0	Non - Agricultural
213801	95088	240807	19980825	19980529	761.29278287400	0.8	Non - Agricultural
213802	95089	240808	19980825	19980529	634.77573987900	0.5	Non - Agricultural
214402	95116	241565	19980918		1067.21532732000	1.7	Non - Agricultural
214403	95117	241566	19980918		1663.28973747000	3.3	Non - Agricultural
214404	95118	241567	19980918		786.27943084700	0.5	Non - Agricultural
214405	95119	241568	19980918		1076.01566826000	1.7	Non - Agricultural
214416	44	241586	19980505	19980401	449.99468583200	0.2	Non - Agricultural
214420	1	241592	19980505	19980401	275.85197582600	0.1	Non - Agricultural
214421	53	241593	19980505	19980401	470.56276459100	0.3	Non - Agricultural
216361	312	244249	19990209	19980401	1538.30025278000	2.6	Non - Agricultural
218402	95087	246806	19990903	19980401	978.20686754000	1.0	Non - Agricultural
218403	95088	246807	19990903	19980401	1079.50540831000	1.5	Non - Agricultural
218427	5	246837	19980505	19980401	969.33612194000	0.5	Non - Agricultural
218430	34	246840	19980505	19980401	778.03272064200	0.6	Non - Agricultural
218438	49	246858	19980505	19980401	761.30782963500	0.5	Non - Agricultural
219570	95068	248357	19991110	19980401	1748.75005334000	3.9	Non - Agricultural
221880	32	250934	19980505	19980401	426.25009836600	0.2	Non - Agricultural
222254	15	251394	20000131	19980401	1390.87360705000	2.7	Non - Agricultural
224572	76	256296	20000425	19980401	1217.16571995000	1.4	Non - Agricultural
230443	95075	261931	20010419	19980401	1433.42197419000	2.9	Non - Agricultural
230444	95076	261932	20010419	19980401	1485.91922831000	3.1	Non - Agricultural
230445	559	261936	20010419	19980401	1529.09598480000	3.2	Non - Agricultural
230446	560	261937	20010419	19980401	710.69627797100	0.3	Non - Agricultural
236973	95035	268693	20030606	19980401	730.18492417200	0.5	Non - Agricultural
238318	95169	270248	20040126	19980401	8576.32782571000	74.9	Non - Agricultural
238658	95168	270247	20040126	19980401	5605.97447641000	38.9	Non - Agricultural
238659	95170	270626	20040126	19980401	4832.49759304000	28.0	Non - Agricultural
239459	95037	271363	20040726	19980401	702.57000114300	0.5	Non - Agricultural
239781	95060	271826	20040922	19980401	759.88137157900	0.5	Non - Agricultural
239782	95059	271825	20040922	19980401	760.16613897400	0.5	Non - Agricultural
240508	95502	272592	20050110	19980401	1248.95078472000	1.5	Non - Agricultural
240511	95507	272597	20050110	19980401	977.58400548700	0.7	Non - Agricultural
240512	95508	272598	20050110	19980401	524.56077048000	0.3	Non - Agricultural
240513	95509	272599	20050110	19980401	631.35104873000	0.4	Non - Agricultural
240514	95093	272603	20050110	19980401	1579.77257032000	3.5	Non - Agricultural
240515	95091	272601	20050110	19980401	1434.82675807000	2.9	Non - Agricultural
240516	95092	272602	20050110	19980401	1095.88483638000	1.5	Non - Agricultural
242560	95010	274718	20050526	19980401	487.09590701900	0.3	Non - Agricultural
242561	95011	274719	20050526	19980401	494.36946953800	0.3	Non - Agricultural
242562	95043	274722	20050531	19980401	216.12878837500	0.0	Non - Agricultural
242563	95040	274723	20050531	19980401	549.88799495100	0.3	Non - Agricultural
242564	95041	274720	20050531	19980401	741.56750617400	0.5	Non - Agricultural
242642	95078	274804	20050608	19980401	2644.70562710000	6.2	Non - Agricultural
242652	95505	274814	20050608	19980401	1840.44241854000	4.7	Non - Agricultural

Totals	
Agricultural - Offsite	439.1
Agricultural - Onsite	424.6
Non - Agricultural	452.5

Table C-1

SOURCES OF URBAN LAND 2002-2004

and

LAND COMMITTED TO NONAGRICULTURAL USE

COUNTY	Shifts to Urban and Built-Up Land from (1):					Land Committed to Nonagricultural Use (2)	
	Prime	Statewide & Unique	Other Land & Water	Grazing & Local	Total	Prime	Total
SOUTHERN CALIFORNIA							
Imperial	218	829	-138	277	1,186	0	0
Los Angeles	-31	25	1,529	1,234	2,757	46	10,350
Orange	448	536	2,088	1,119	4,191	3,501	8,873
Riverside	1,925	560	4,816	7,105	14,406	1,471	40,709
San Bernardino	652	591	4,649	3,422	9,314	117	14,229
San Diego	13	116	3,426	2,575	6,130	330	9,465
Ventura	556	265	723	508	2,052	365	6,914
Subtotals	3,781	2,922	17,093	16,240	40,036	5,830	90,540
SAN JOAQUIN VALLEY							
Fresno	1,377	704	399	882	3,362	1,656	5,950
Kern (NW,SE)	3,677	627	3,170	423	7,897	2,775	3,533
Kings	279	361	268	64	972	91	125
Madera	46	96	565	217	924	257	4,071
Merced	703	355	81	713	1,852	136	866
San Joaquin	1,445	794	241	569	3,049	3,614	5,703
Stanislaus	3,088	372	541	360	4,361	384	1,578
Tulare	1,254	123	207	131	1,715	594	1,183
Subtotals	11,869	3,432	5,472	3,359	24,132	9,507	23,009
CENTRAL COAST							
Monterey	123	31	81	-2	233	512	940
San Benito	94	-6	17	123	228	0	0
San Luis Obispo	30	65	212	456	763	0	444
Santa Barbara	153	239	515	45	952	438	956
Subtotals	400	329	825	622	2,176	950	2,340
SAN FRANCISCO BAY							
Alameda	249	-20	171	334	734	161	5,227
Contra Costa	704	306	923	3,054	4,987	419	2,635
Marin	0	3	272	148	423	0	17
Napa	25	34	577	212	848	46	1,925
San Mateo	3	-19	138	0	122	0	595
Santa Clara	566	166	416	897	2,045	1,103	3,027
Santa Cruz	93	68	150	18	329	1	27
Solano	530	51	552	1,150	2,283	46	4,740
Sonoma	21	54	-54	67	88	19	715
Subtotals	2,191	643	3,145	5,880	11,859	1,795	18,908
SIERRA FOOTHILL							
Amador	24	14	368	150	556	1	33
El Dorado	15	3	807	1,290	2,115	0	0
Mariposa	0	0	23	6	29	0	1,494
Nevada	-1	68	1,401	301	1,769	0	704
Placer	182	174	811	4,161	5,328	0	2,301
Subtotals	220	259	3,410	5,908	9,797	1	4,532
SACRAMENTO VALLEY							
Colusa	97	6	33	57	193	0	0
Glenn	24	21	52	41	138	820	2,756
Sacramento	288	1,143	878	3,417	5,726	0	1,739
Shasta	57	4	1,634	214	1,909	0	2,576
Sutter	63	322	331	18	734	9	242
Tehama	198	50	849	287	1,384	132	3,519
Yolo	579	47	334	335	1,295	250	1,541
Yuba	18	46	118	62	244	0	0
Subtotals	1,324	1,639	4,229	4,431	11,623	1,211	12,373
NORTH STATE (northwest & northeast)							
Lake	0	0	9	0	9	0	0
Modoc	0	0	0	0	0	16	4,869
Sierra Valley	0	0	0	0	0	9	3,029
Siskiyou	-4	-5	2	8	1	0	64
Subtotals	-4	-5	11	8	10	25	7,962
INTERIM MAPPING AREAS							
Butte	NA	299	501	679	1,479	NA	0
Kern (NE,SW)	NA	-29	620	122	713	NA	499
Subtotals		270	1,121	801	2,192		499
GRAND TOTALS	19,781	9,489	35,306	37,249	101,825	19,319	160,163

(1) New Urban Land acreages are net figures.

(2) Land Committed to Nonagricultural Use information is voluntarily submitted by city and county planning departments.

Table C-2

IRRIGATED FARMLAND CHANGES 2002-2004 (1)

ASIDE FROM URBANIZATION

COUNTY	*Land converted to Irrigated Agriculture:* Grazing, Local, Other Land & Urban to Prime	Grazing, Local, Other Land & Urban to Statewide & Unique	Total	*Land removed from Irrigated Agriculture:* Prime, Statewide & Unique to Other Land	Prime, Statewide & Unique to Local & Grazing	Total
SOUTHERN CALIFORNIA						
Imperial	2,765	2,910	5,675	6,041	2,394	8,435
Los Angeles	2,398	185	2,583	956	477	1,433
Orange	50	71	121	185	70	255
Riverside	2,821	2,288	5,109	1,592	7,800	9,392
San Bernardino	238	235	473	702	1,540	2,242
San Diego	472	1,883	2,355	681	5,570	6,251
Ventura	154	1,393	1,547	381	153	534
Subtotals	8,898	8,965	17,863	10,538	18,004	28,542
SAN JOAQUIN VALLEY						
Fresno	1,672	1,430	3,102	4,065	14,640	18,705
Kern (NW,SE)	1,625	625	2,250	2,351	8,900	11,251
Kings	1,080	2,588	3,668	2,269	2,369	4,638
Madera	687	3,496	4,183	1,909	990	2,899
Merced	706	4,769	5,475	2,093	11,923	14,016
San Joaquin	446	2,834	3,280	521	4,094	4,615
Stanislaus	1,264	2,951	4,215	2,342	826	3,168
Tulare	316	437	753	2,411	6,516	8,927
Subtotals	7,796	19,130	26,926	17,961	50,258	68,219
CENTRAL COAST						
Monterey	812	613	1,425	497	1,195	1,692
San Benito	496	751	1,247	452	627	1,079
San Luis Obispo	1,180	3,915	5,095	363	7,944	8,307
Santa Barbara	2,668	2,334	5,002	654	893	1,547
Subtotals	5,156	7,613	12,769	1,966	10,659	12,625
SAN FRANCISCO BAY						
Alameda	69	464	533	272	626	898
Contra Costa	84	269	353	517	2,214	2,731
Marin	0	16	16	0	0	0
Napa	392	1,026	1,418	399	389	788
San Mateo	17	60	77	22	104	126
Santa Clara	97	62	159	956	542	1,498
Santa Cruz	67	156	223	415	261	676
Solano	178	95	273	784	2,554	3,338
Sonoma	137	655	792	318	2,592	2,910
Subtotals	1,041	2,803	3,844	3,683	9,282	12,965
SIERRA FOOTHILL						
Amador	112	679	791	44	697	741
El Dorado	1	281	282	146	263	409
Mariposa	0	8	8	0	57	57
Nevada	1	30	31	185	13	198
Placer	129	2,086	2,215	328	636	964
Subtotals	243	3,084	3,327	703	1,666	2,369
SACRAMENTO VALLEY						
Colusa	1,473	899	2,372	2,857	910	3,767
Glenn	769	784	1,553	706	2,192	2,898
Sacramento	57	188	245	787	5,009	5,796
Shasta	85	36	121	313	941	1,254
Sutter	275	427	702	1,625	931	2,556
Tehama	753	1,011	1,764	3,113	7,598	10,711
Yolo	586	1,018	1,604	1,337	2,938	4,275
Yuba	261	437	698	1,323	1,605	2,928
Subtotals	4,259	4,800	9,059	12,061	22,124	34,185
NORTH STATE (northwest & northeast)						
Lake	47	18	65	84	149	233
Modoc	263	491	754	161	2,381	2,542
Sierra Valley	492	1,702	2,194	0	379	379
Siskiyou	124	173	297	10,568	6,697	17,265
Subtotals	926	2,384	3,310	10,813	9,606	20,419
INTERIM MAPPING AREAS						
Butte	NA	1,485	1,485	1,979	739	2,718
Kern (NE,SW)	NA	2,015	2,015	1,542	4,525	6,067
Subtotals		3,500	3,500	3,521	5,264	8,785
GRAND TOTALS	28,319	52,279	80,598	61,246	126,863	188,109

(1) Agricultural change data compiled from Part III of individual county tables. Figures do not include shifts among irrigated categories (soil unit revisions).

Table C-3

NET CHANGE IN IRRIGATED LAND
2002-2004

From all Factors (1)

Grouped by Region	
SOUTHERN CALIFORNIA	
Imperial	-4,281
Los Angeles	1,085
Orange	-1,128
Riverside	-7,078
San Bernardino	-3,020
San Diego	-4,101
Ventura	183
Subtotals	-18,340
SAN JOAQUIN VALLEY	
Fresno	-17,748
Kern (NW,SE)	-13,390
Kings	-1,651
Madera	1,035
Merced	-9,626
San Joaquin	-3,589
Stanislaus	-2,421
Tulare	-9,637
Subtotals	-57,027
CENTRAL COAST	
Monterey	-422
San Benito	45
San Luis Obispo	-3,309
Santa Barbara	3,032
Subtotals	-654
SAN FRANCISCO BAY	
Alameda	-649
Contra Costa	-3,413
Marin	13
Napa	557
San Mateo	-52
Santa Clara	-2,091
Santa Cruz	-615
Solano	-3,655
Sonoma	-2,205
Subtotals	-12,110
SIERRA FOOTHILL	
Amador	9
El Dorado	-145
Mariposa	-49
Nevada	-240
Placer	892
Subtotals	467
SACRAMENTO VALLEY	
Colusa	-1,498
Glenn	-1,425
Sacramento	-6,990
Shasta	-1,212
Sutter	-2,242
Tehama	-9,251
Yolo	-3,324
Yuba	-2,298
Subtotals	-28,240
NORTH STATE (northwest & northeast)	
Lake	-168
Modoc	-1,788
Sierra Valley	1,815
Siskiyou	-16,979
Subtotals	-17,120
INTERIM MAPPING AREAS	
Butte	-1,532
Kern (NE,SW)	-4,088
Subtotals	-5,620
GRAND TOTALS	**-138,644**

Rank by County (2) 2002-2004	
Santa Barbara	3,032
Sierra Valley	1,815
Los Angeles	1,085
Madera	1,035
Placer	892
Napa	557
Ventura	183
San Benito	45
Marin	13
Amador	9
Mariposa	-49
San Mateo	-52
El Dorado	-145
Lake	-168
Nevada	-240
Monterey	-422
Santa Cruz	-615
Alameda	-649
Orange	-1,128
Shasta	-1,212
Glenn	-1,425
Colusa	-1,498
Butte	-1,532
Kings	-1,651
Modoc	-1,788
Santa Clara	-2,091
Sonoma	-2,205
Sutter	-2,242
Yuba	-2,298
Stanislaus	-2,421
San Bernardino	-3,020
San Luis Obispo	-3,309
Yolo	-3,324
Contra Costa	-3,413
San Joaquin	-3,589
Solano	-3,655
San Diego	-4,101
Imperial	-4,281
Sacramento	-6,990
Riverside	-7,078
Tehama	-9,251
Merced	-9,626
Tulare	-9,637
Siskiyou	-16,979
Kern	-17,478
Fresno	-17,748

(1) Data compiled from Part I of individual county tables. Net change includes the impact of urbanization, conversion to Other Land, removal from irrigated use due to idling, as well as conversions into irrigated use. The net figure also includes any soil unit reclassifications or other revisions within irrigated categories.

(2) Figures for Important and Interim sections of Kern County have been grouped for county ranking.

Soil Reports

Open All | Close All

- AOI Inventory
- Building Site Development
- Construction Materials
- **Land Classifications**
  - California Revised Storie Index Rating (CA)
  - Conservation Tree and Shrub Suitability Groups
  - Hydric Soils
  - Hydric Soils (CA)
  - Land Capability Classification
  - **Prime and other Important Farmlands**

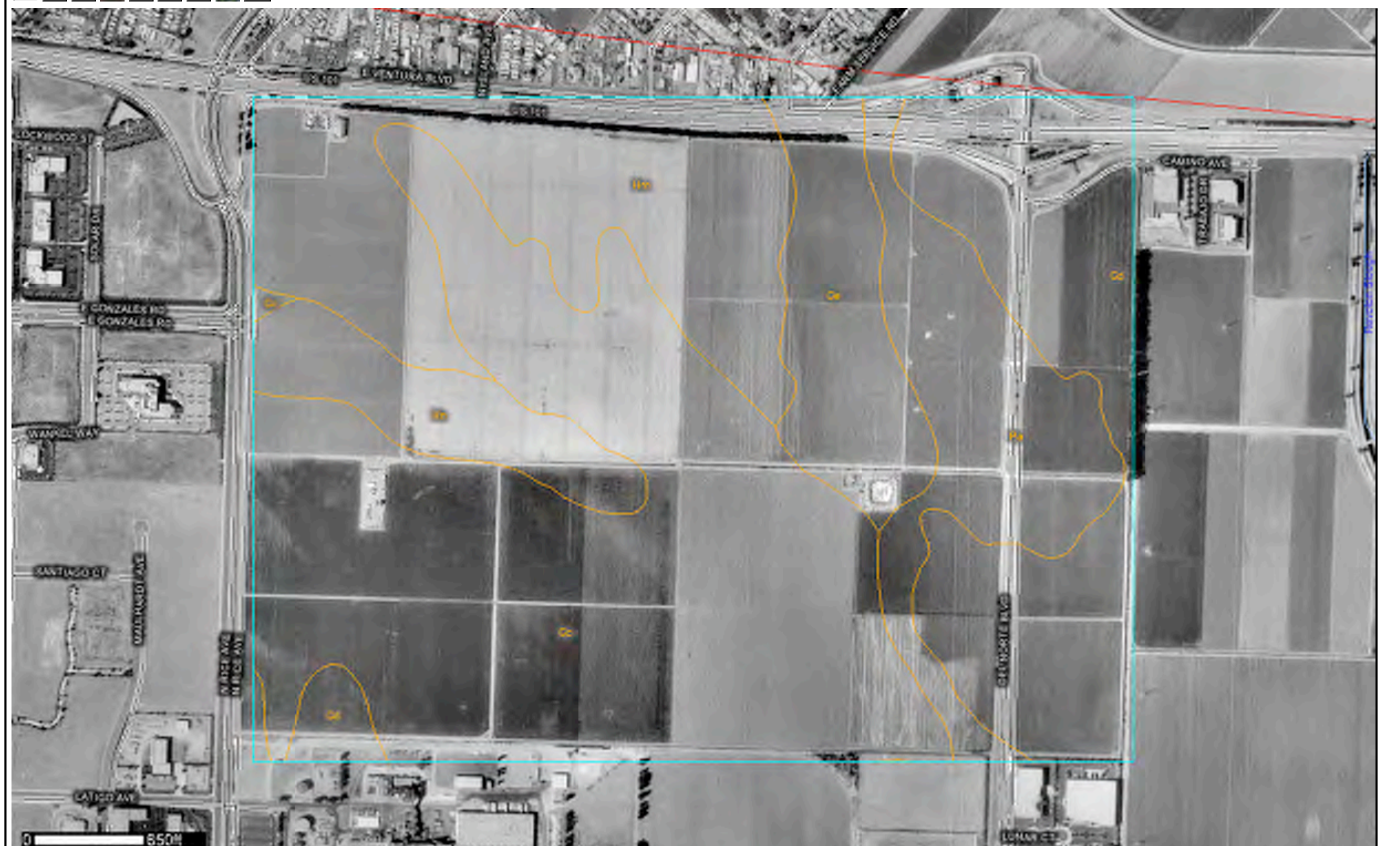
    View Description | View Soil Report

    This report has no options.

    View Description | View Soil Report
  - Taxonomic Classification of the Soils
- Land Management
- Recreational Development
- Sanitary Facilities
- Soil Chemical Properties
- Soil Erosion
- Soil Physical Properties
- Soil Qualities and Features
- Vegetative Productivity
- Waste Management
- Water Features
- Water Management
- Wildlife Management

Soil Map

Scale (not to scale)



Report — Prime and other Important Farmlands

Ventura Area, California

Map Symbol	Map Unit Name	Farmland Classification
Cc	Camarillo sandy loam	Farmland of statewide importance
Cd	Camarillo loam	Farmland of statewide importance
Ce	Camarillo loam, sandy substratum	Farmland of statewide importance
Hm	Hueneme loamy sand, loamy substratum	Prime farmland if irrigated and drained

Ventura Area, California		
Hn	Hueneme sandy loam	Prime farmland if irrigated and drained
Pa	Pacheco silty clay loam	Farmland of statewide importance

Description — Prime and other Important Farmlands

Prime and Important Farmland

This table lists the map units in the survey area that are considered important farmlands. Important farmlands consist of prime farmland, unique farmland, and farmland of statewide or local importance. This list does not constitute a recommendation for a particular land use.

In an effort to identify the extent and location of important farmlands, the Natural Resources Conservation Service, in cooperation with other interested Federal, State, and local government organizations, has inventoried land that can be used for the production of the Nation's food supply.

Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

For some of the soils identified in the table as prime farmland, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures.

A recent trend in land use in some areas has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops, such as citrus, tree nuts, olives, cranberries, and other fruits and vegetables. It has the special combination of soil quality, growing season, moisture supply, temperature, humidity, air drainage, elevation, and aspect needed for the soil to economically produce sustainable high yields of these crops when properly managed. The water supply is dependable and of adequate quality. Nearness to markets is an additional consideration. Unique farmland is not based on national criteria. It commonly is in areas where there is a special microclimate, such as the wine country in California.

In some areas, land that does not meet the criteria for prime or unique farmland is considered to be *farmland of statewide importance* for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate State agencies. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some areas may produce as high a yield as prime farmland if conditions are favorable. Farmland of statewide importance may include tracts of land that have been designated for agriculture by State law.

In some areas that are not identified as having national or statewide importance, land is considered to be *farmland of local importance* for the production of food, feed, fiber, forage, and oilseed crops. This farmland is identified by the appropriate local agencies. Farmland of local importance may include tracts of land that have been designated for agriculture by local ordinance.

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- Building Site Development
- Construction Materials
- **Land Classifications**
  - California Revised Storie Index Rating (CA)
  - Conservation Tree and Shrub Suitability Groups
  - Hydric Soils
  - Hydric Soils (CA)
  - **Land Capability Classification**

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Options

Include Minor Soils

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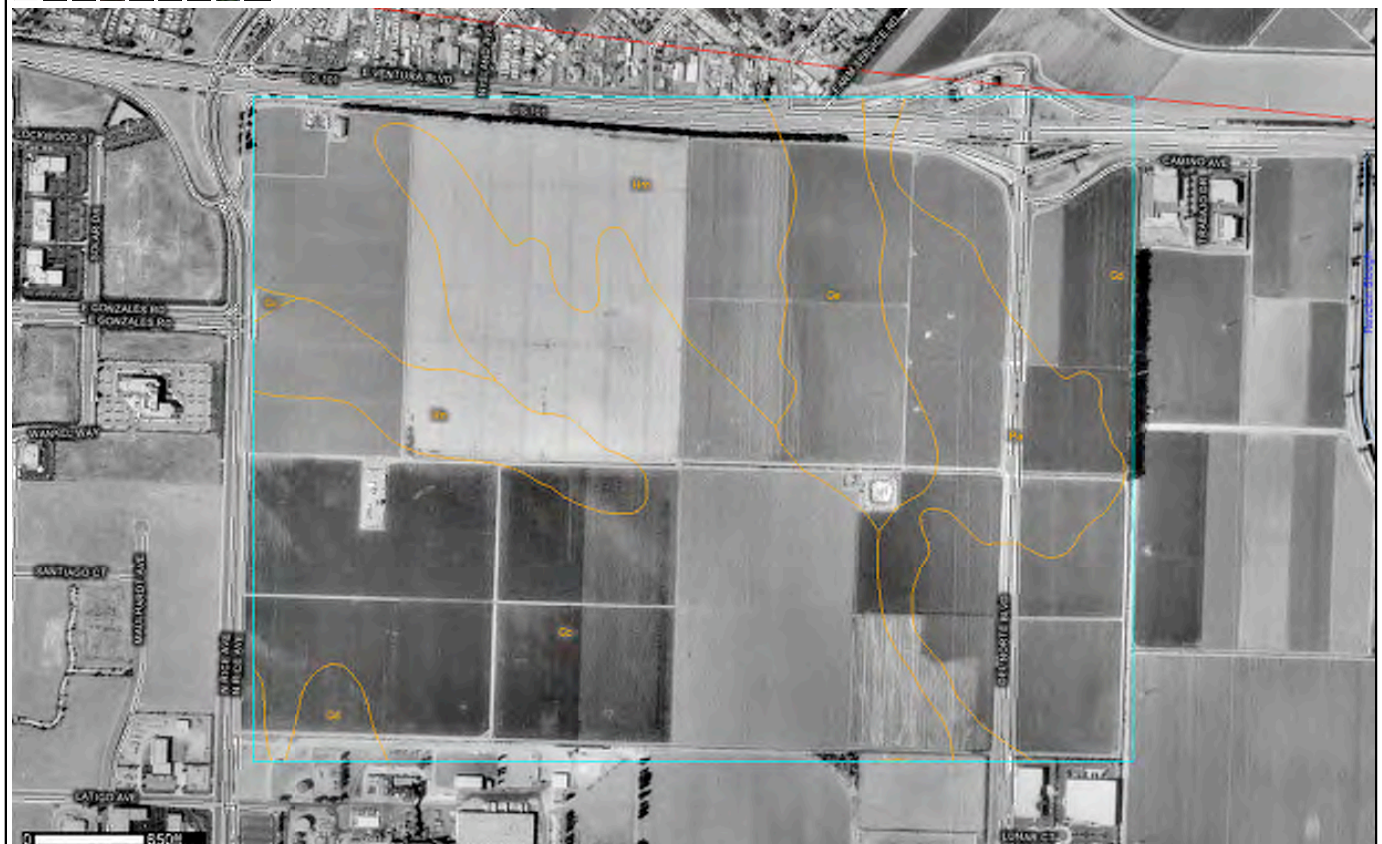
  - Prime and other Important Farmlands
  - Taxonomic Classification of the Soils
- Land Management
- Recreational Development
- Sanitary Facilities
- Soil Chemical Properties
- Soil Erosion
- Soil Physical Properties
- Soil Qualities and Features
- Vegetative Productivity
- Waste Management
- Water Features
- Water Management
- Wildlife Management

Soil Map

Scale (not to scale)



Report — Land Capability Classification

Ventura Area, California

Map unit symbol and name	Pct. of map unit	Component name	Land Capability Subclass	
			Nonirrigated	Irrigated
Cc— Camarillo sandy loam				
	85	Camarillo	3w	2w
Cd— Camarillo loam				
	85	Camarillo	3w	2w

Ventura Area, California

Ce— Camarillo loam, sandy substratum			
	85 Camarillo	3w	2w
Hm— Hueneme loamy sand, loamy substratum			
	85 Hueneme	3w	2w
Hn— Hueneme sandy loam			
	85 Hueneme	3w	2w
Pa— Pacheco silty clay loam			
	85 Pacheco	3w	3w

Description — Land Capability Classification

Land Capability Classification

The land capability classification of map units in the survey area is shown in this table. This classification shows, in a general way, the suitability of soils for most kinds of field crops (United States Department of Agriculture, Soil Conservation Service, 1961). Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for rangeland, for forestland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels: capability class, subclass, and unit.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

- Class 1 soils have slight limitations that restrict their use.
- Class 2 soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.
- Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.
- Class 4 soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.
- Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.
- Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.
- Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.
- Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Capability subclasses are soil groups within one class. They are designated by adding a small letter, *e*, *w*, *s*, or *c*, to the class numeral, for example, 2e. The letter *e* shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c*, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w*, *s*, or *c* because the soils in class 5 are subject to little or no erosion.

Ventura County Crop Report 2006

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Agricultural Commissioner
W. Earl McPhail

Chief Deputy
Susan L. Johnson

July 13, 2007

TO: THE HONORABLE BOARD OF SUPERVISORS OF VENTURA COUNTY

LINDA PARKS, Chair	District 2
STEVE BENNETT	District 1
KATHY LONG	District 3
PETER FOY	District 4
JOHN K. FLYNN	District 5

and
A. G. KAWAMURA, SECRETARY,
California State Department of Food and Agriculture

Pursuant to Section 2279 of the California Food and Agricultural Code, I hereby submit the Ventura County Annual Crop and Livestock Report for 2006.

The estimated gross value for Ventura County agriculture for Calendar year 2006 is $1,508,174,000. This is an overall increase of $282,434,000 from 2005. This report reflects gross values only and does not represent the net return to growers.

Highlights of the 2006 Crop Report are as follows:

- Strawberries are, once again, the leading commodity in 2006 with a value of $366,310,000.
- Vegetables crop value increased by $ 96,390,000.
- Fruits and nuts crop value increased by $102,923,000.

I wish to thank all the individuals, producers, processors, and government agencies whose co-operation and assistance contributed to preparing this report. My sincerest thanks and appreciation must be especially extended to my Deputy Agricultural Commissioner Kerry DuFrain, as well as all department staff for their efforts in compiling and finalizing this report.

Respectfully submitted,

W. Earl McPhail

W. Earl McPhail
Agricultural Commissioner
County of Ventura

WEM/lh
:My Documents/Crop Reports/VC Crop Report 2005

Office of the
AGRICULTURAL COMMISSIONER

W. Earl McPhail – AGRICULTURAL COMMISSIONER

CHIEF DEPUTY AGRICULTURAL COMMISSIONER:

Susan L. Johnson

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George Mendoza, Louis Ortali, Michael Silverman

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INSECT DETECTION SPECIALISTS:

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Amado Mijares, Barbara Miller, Jose Muñoz, Connie Ratner, John Salzwedel, David Soriano

Front cover photo: Poinsettias in the Greenhouse taken by Eliseo Hernandez

AGRICULTURAL CROP REPORT
Recapitulation and Index
2005 – 2006

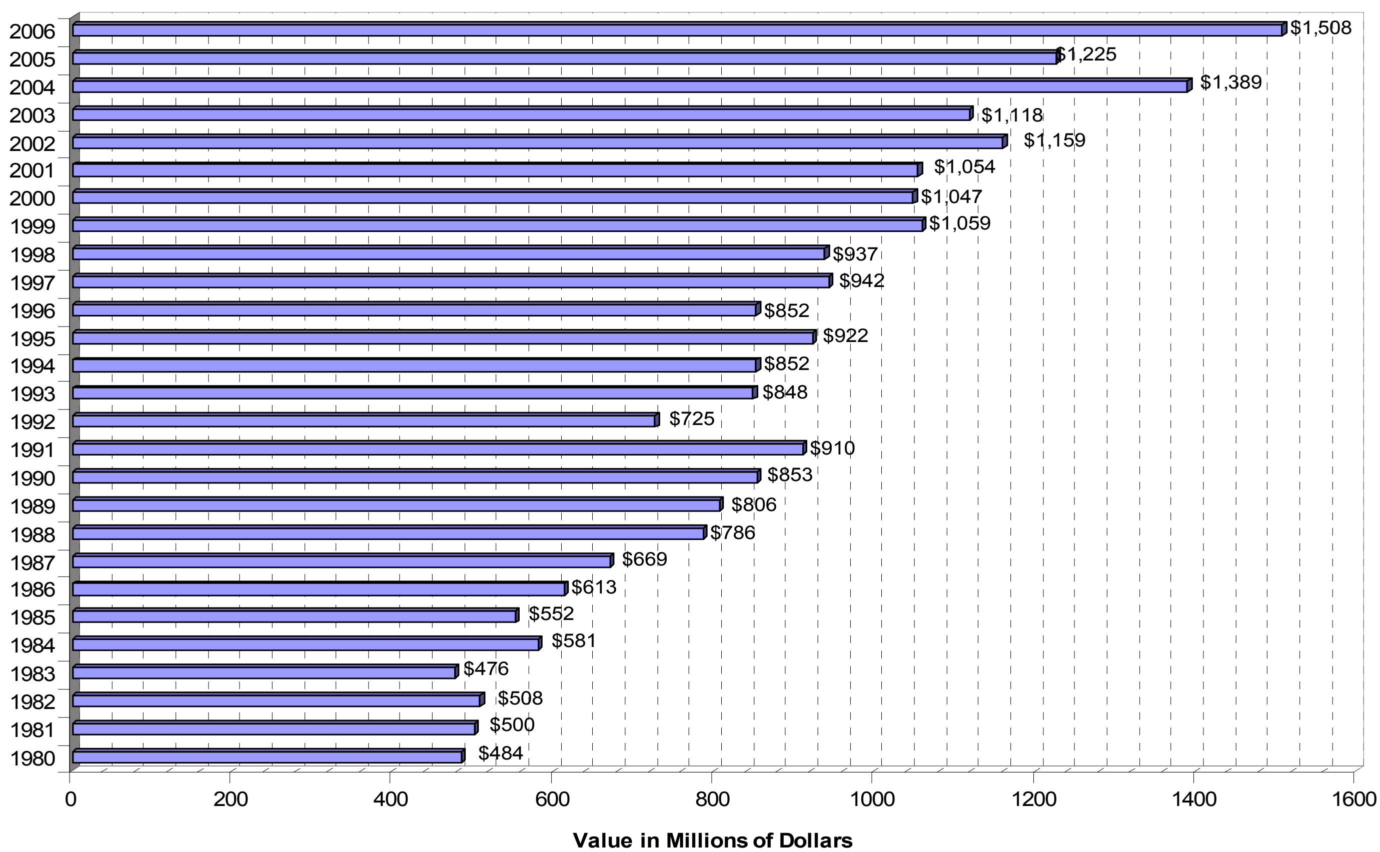
[1] Figures are rounded off to nearest $1000
[2] Includes Cut Christmas Trees

Five Year Comparison Of

Ventura County Crop Values

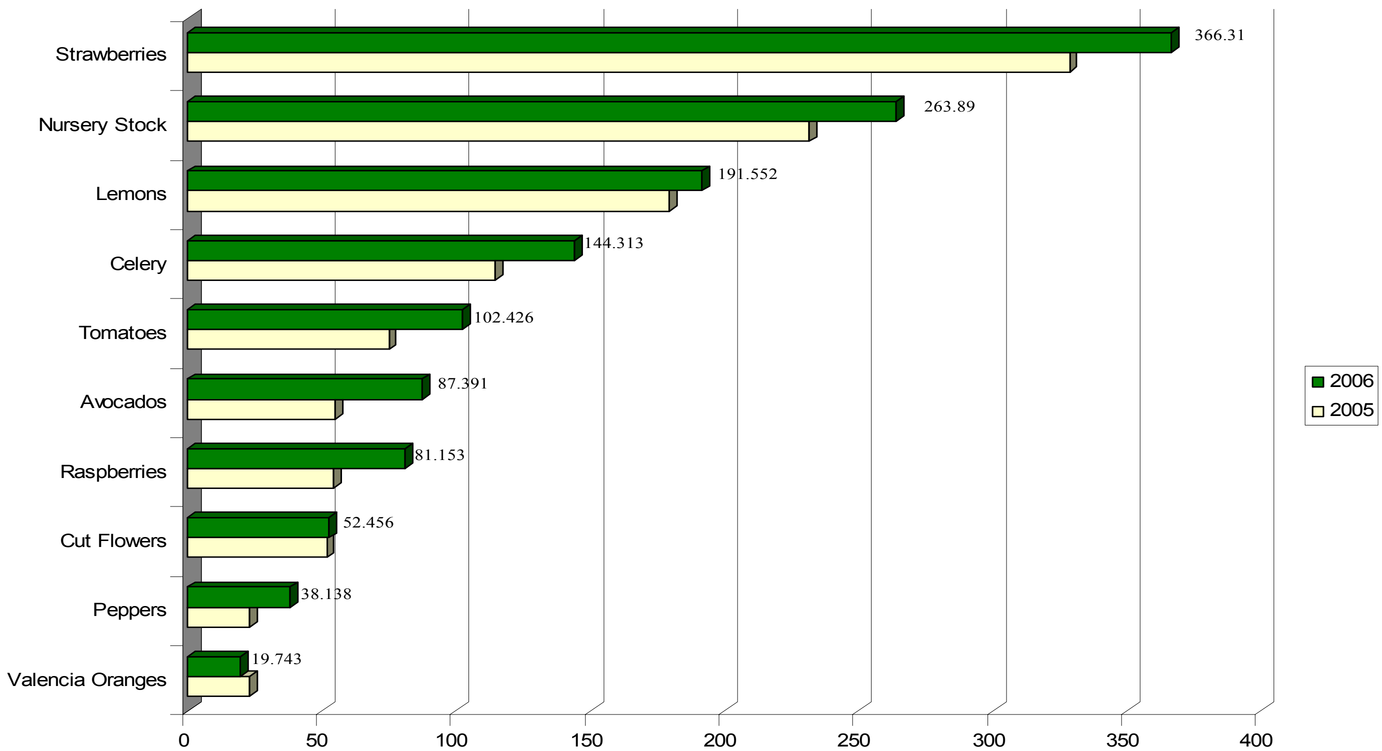
	2002	2003	2004	2005	2006
Fruit and Nut Crops	631,018,000	591,667,000	740,039,000	652,777,000	755,700,000
Vegetable Crops	304,020,000	298,743,000	354,514,000	330,269,000	426,659,000
Livestock and Poultry Products	2,423,000	2,216,000	1,942,000	2,150,000	4,775,000
Apiary Products	863,000	1,339,000	362,000	509,000	431, 000
Nursery Stock	173,896,000	173,262,000	222,514,000	213,661,000	263,890,000
Cut Flowers	40,349,000	44,515,000	65,663,000	51,751,000	52,456,000
Field Crops	3,628,000	3,108,000	2,270,000	1,193,000	1,677,000
Timber	69,000	61,000	71,000	62,000	16,000
Biological Control	3,039,000	2,807,000	2,337,000	1,999,000	2,570,000
GRAND TOTAL	$1,159,305,000	$1,117,628,000	$1,389,452,000	1225,109,000	1,508,174,000

Total Crop Values 2000-2006



TEN LEADING CROPS
FOR 2006

RANK	CROP	VALUE
1st	Strawberries	$366,310,000
2nd	Nursery Stock	263,890,000
3rd	Lemons	191,552,000
4th	Celery	144,313,000
5th	Tomatoes	102,426,000
6th	Avocados	87,391,000
7th	Raspberries	81,153,000
8th	Cut Flowers	52,456,000
9th	Peppers	38,138,000
10th	Valencia Oranges	19,734,000



OTHER MILLION DOLLAR CROPS

Greens	16,007,000	Beans (all)	4,629,000
Cabbage	15,098,000	Radishes	4,113,000
Lettuce	13,862,000	*Orchids	3,698,000
*Veg. Transplants	10,484,000	Carrots	3,319,000
Spinach	8,508,000	Parsley	2,974,000
Cilantro	8,495,000	Cucumber	2,938,000
Broccoli	6,664,000	Beet	2,374,000
Oriental Vegetables	6,135,000	*Poinsettia	2,162,000
Onions (all)	4,927,000	Naval Oranges	1,441,000
Livestock	4,774,000	Kale	1,248,000

* Included in Nursery Stock total above

FRUIT AND NUT CROPS
ACREAGE, PRODUCTION AND VALUES 2005-06

		PRODUCTION				$ VALUE	
CROP	YEAR	HARVESTED ACREAGE	PER ACRE	TOTAL	UNIT	PER UNIT	TOTAL
AVOCADOS	2006	16,417	4.85	79,646	Tons	$1,097.24	$87,391,000
	2005	19,206	1.54	29,592	"	1,851.95	54,803,000
GRAPEFRUIT							
Total	2006	85	7.46	634	"	820.19	520,000
	2005	108	14.75	1,593	"	364.72	581,000
LEMONS							
Total	2006	19,100	20.68	394,958	"	484.99	191,552,000
	2005	20,875	19.02	396,939	"	451.53	179,228,000
ORANGES (Navel)							
Total	2006	455	9.27	4,218	"	341.63	1,441,000
	2005	617	13.81	8,519	"	697.03	5,938,000
ORANGES (Valencia)							
Total	2006	4,377	12.14	53,146	"	371.32	19,734,000
	2005	5,075	11.18	56,715	"	409.91	23,248,000
RASPBERRIES	2006	1,492	8.36	12,473	"	6,506.29	81,153,000
	2005	1,251	10.94	13,684	"	3,977.20	54,430,000
STRAWBERRIES							
Total	2006	11,936	26.76	319,418	"	1,146,80	366,310,000
	2005	11,333	25.28	286,498	"	1,146.84	328,567,000
Fresh	2006			237,168	"	1,342,09	318,301,000
	2005			199,461	"	1,427.00	284,631,000
Processed	2006			82,250	"	583.70	48,009,000
	2005			87,021	"	504.89	43,936,000
TANGERINES &	2006	253	7.40	1,872	"	977.03	1,829,000
TANGELOS	2005	159	6.07	965	"	1,886.01	1,820,000
MISC. FRUITS	2006	526			"		5,770,000
AND NUTS[3]	2005	492			"		4,162,000
TOTAL	2006	54,641					$755,700,000
	*2005	59,116					$652,777,000

*acres overestimated

[3] MISC. FRUITS AND NUTS include Apples, Apricots, Asian Pears, Bushberries, Cherimoya, Grapes, Guavas, Kiwi, Limes, Persimmons, Macadamias, Walnuts; and miscellaneous citrus, deciduous, and subtropicals

VEGETABLE CROPS
ACREAGE, PRODUCTION AND VALUES 2005-06

		PRODUCTION				$ VALUE	
CROP	YEAR	HARVESTED ACREAGE	PER ACRE	TOTAL	UNIT	PER UNIT	TOTAL
BEANS							
Green and							
Dry Limas,	2006	2,724	2.29	6,233	Tons	742.66	$4,629,000
Green Snap	2005	2,255	2.32	5,221	Tons	727.64	$3,799,000
BEETS	2006	261	9.02	2,354	"	1,008.50	2,374,000
	2005	210	9.53	2,001	"	931.53	1,864,000
BROCCOLI							
Fresh and	2006	1,140	8.42	9,596		694.46	6,664,000
Processed	2005	1,329	6.82	9,070	"	671.33	6,089,000
CABBAGE	2006	2,768	25.89	71,671	"	210.66	15,098,000
	2005	2,260	24.78	56,003	"	204.87	11,451,000
CARROTS	2006	571	19.21	10,967	"	302.64	3,319,000
CELERY	2006	11,917	36.93	440,151	"	327.87	144,313,000
	2005	10,778	35.33	380,825	"	301.34	114,759,000
CILANTRO	2006	1,490	7.79	11,614	"	731.44	8,495,000
	2005	763	8.11	6,190	"	843.30	5,220,000
CUCUMBERS	2006	117	19.09	2,233	"	1,315.72	2,938,000
	2005	71	11.65	827	"	1,480.05	1,224,000
GREENS[4]	2006	1,488	-	1,917,852	Ctns	8.35	16,007,000
	2005	1,731	-	2,414,688	Ctns	6.25	15,102,000
KALE	2006	215	5.25	1,128	Tons	1,106.38	1,248,000
	2005	153	9.07	1,388	Tons	750.72	1,042,000
LETTUCE	2006	2,530	11.08	28,041	"	494.35	13,862,000
Total	2005	1,576	11.96	18,848	"	499.29	9,410,000
Head	2006	388	16.09	6,244	"	359.22	2,243,000
	2005	119	18.04	2,147	"	305.08	655,000
Romaine	2006	987	13.61	13,435	"	360.40	4,842,000
	2005	955	12.10	11,558	"	445.58	5,150,000
Leaf	2006	1,155	7.24	8,362	"	810.45	6,777,000
	2005	502	10.25	5,143	"	700.95	3,605,000

[4] Includes: chard, collard, mustard, turnip and watercress.

VEGETABLE CROPS
ACREAGE, PRODUCTION AND VALUES 2005-05

		PRODUCTION				$ VALUE	
CROP	YEAR	HARVESTED ACREAGE	PER ACRE	TOTAL	UNIT	PER UNIT	TOTAL
ORIENTAL VEG.	2006	1,175	8.51	10,003	Tons	613.32	$6,135,000
	2005	670	9.02	6,045	Tons	449.63	2,718,000
ONIONS	2006	595	13.44	7,995	"	616.26	4,927,000
Green & Dry	2005	720	20.77	14,955	"	282.98	4,232,000
PARSLEY	2006	349	9.81	3,424	"	868.57	2,947,000
	2005	361	13.19	4,762	"	822.55	3,917,000
PEPPERS							
Bell and	2006	2,483	21.24	52,745	"	723.06	38,138,000
Chili	2005	2,041	21.17	43,201	"	533.62	23,053,000
PUMPKIN	2006	98	10.79	1,057	"	298.96	316,000
	2005	127	18.05	2,292	"	217.28	498,000
RADISHES	2006	754	11.80	8,898	"	462.24	4,113,000
	2005	347	10.66	3,699	"	672.61	2,488,000
SPINACH	2006	1,256	9.29	11,671	"	728.99	8,508,000
	2005	1,054	4.53	4,772	"	1,648.58	7,867,000
SWEET CORN	2006	467	7.01	3,273	"	273.14	894,000
	2005	510	5.05	2,577	"	435.78	1,123,000
TOMATOES[5]							
	2006	1,741	63.26	110,140	"	929.96	102,426,000
	2005	1,586	53.46	84,793	"	884.37	74,988,000
VEGETABLES, MISC.[6]							
Field, Indoor, and	2006	1,594			"		39,308,000
Processed	2005	2,069			"		39,425,000
TOTAL	2006	35,733					$426,659,000
	2005	30,611					$330,269,000

[5] Includes hydroponics

[6] Includes: artichokes, arugula, asparagus, baby vegetables, carrot, cauliflower, eggplant, endive, garlic, gourds, herbs, kohlrabi, leeks, melons, mushrooms, peas, radicchio, sprouts, squash, tomatillos, and turnips.

NURSERY STOCK

PRODUCTION AND VALUES 2005-06

ITEM	YEAR	PRODUCTION		PRODUCTION AREA Greenhouse Square Feet	Field Acres	Per Unit	TOTAL
NURSERY STOCK							
	2006	--------	--------	6,443,219	4,588		$263,890,000
	2005	--------	--------	5,667,265	4,181		$213,661,000
Fruit and Nut	2006	841,299	Trees		130	14.29	12,025,000
Trees	2005	933,648	Trees		142	14.28	13,335,000
Potted Plants	2006	2,916,719	Pots	2,255,902	45	4.26	12,420,000
	2005	3,764,599	Pots	2,102,162	42	3.25	12,250,000
Propagative Mat	2006	53,356,142	Cuttings	497,360	10	.09	4,554,000
	2005	56,360,767	Cuttings	496,370	14	.12	7,031,000
Herb. Perennials	2006	4,149,303	Containers	765,465	115	2.87	11,905,000
	2005	3,782,162	Containers	671,229	79	3.13	11,844,000
Woody Orn.*	2006	12,735,362	Tree/Shrubs	695,150	2064	11.30	143,788,000
	2005	10,239,759	Tree/Shrubs	885,042	1,817	8.98	91,917,000
Bed. Plants	2006	62,399,363	Flats	730,200	2,218	1.10	68,714,000
Gr. Cover & Turf	2005	61,161,757	Flats	485,432	2,083	1.13	69,125,000
Veg. Transplants	2006	4,280,914	Flats	1,499,142	6	2.45	10,484,000
	2005	2,494,434	Flats	1,027,030	4	3.27	8,159,000
TOTAL	2006						$263,890,000
	2005						$213,661,000

*Includes cut Christmas Trees

CUT FLOWERS
PRODUCTION AND VALUES 2005-06

ITEM	YEAR	ACRES	PRODUCTION	UNIT	TOTAL $ VALUE
FLOWER BLOOMS &	2006	29	12,804,501	Blooms	$3,791,000
STEMS	2005	26	9,501,406	"	2,770,000
CUT GREENS & DRIED	2006	88	438,444	Bunches	658,000
FLOWERS	2005	140	429,141	Bunches	622,000
FLOWER BUNCHES	2006	803	17,972,092	Bunches	48,007,000
Total	2005	787	19,047,702	Bunches	48,359,000
Statice, Lace, Aster	2006	113	1,891,849	"	4,031,000
And Gypsophila	2005	156	2,686,071	"	5,710,000
Chrysanthemums and	2006	56	3,511,000	"	4,609,000
Sunflowers	2005	52	3,882,208	"	5,381,000
Lilies & Irises	2006	61	3,129,386	"	15,339,000
	2005	61	2,940,109	"	13,598,000
Lisianthus	2006	33	582,433	"	2,298,000
	2005	28	620,273	"	2,459,000
Stock, Larkspur,	2006	281	4,306,411	"	9,749,000
Delphinium & Snapdragons	2005	251	4,029,353	"	9,036,000
Miscellaneous	2006	259	4,549,000	"	11,981,000
	2005	239	4,889,688	"	12,175,000
TOTAL	2006	920			$52,456,000
	2005	953			$51,751,000

FIELD CROPS
ACREAGE, PRODUCTION AND VALUE 2005-06

CROP	YEAR	HARVESTED ACREAGE	TOTAL $ VALUE
ALFALFA AND PASTURE	2006	100,085	$1,005,000
Irrigated and Non-Irrigated	2005	100,294	1,032,000
GRAIN[7], HAY,	2006	972	672,000
& VEGETABLE SEED	2005	1,134	899,000
TOTAL	2006		$1,677,000
	2005		$1,931,000

[7] Includes green barley

LIVESTOCK AND POULTRY
PRODUCTION AND VALUES 2005-06

ITEM	YEAR	PRODUCTION	UNIT	$ VALUE PER UNIT	$ VALUE TOTAL
LIVESTOCK					
Cattle, Hogs	2006	20,270	cwt.	117.61	$2,384,000
Sheep	2005	16,240	cwt.	120.69	$1,960,000
POULTRY					
Chickens	2006				2,376,000
	2005				94,000
OTHER LIVESTOCK[8]	2006				15,000
	2005				96,000
TOTAL	2006				$4,775,000
	2005				$2,150,000

APIARY PRODUCTS
PRODUCTION AND VALUES 2005-06

CROP	YEAR	PRODUCTION	UNIT	$ VALUE PER UNIT	$ VALUE TOTAL
HONEY	2006	264,114	lbs.	$1.02	$269,000
	2005	523,072	lbs.	$.85	$446,000
BEESWAX	2006	7,740		1.94	15,000
	2005	12,687		1.50	19,000
POLLINATION USE	2006				147,000
	2005				44,000
TOTAL	2006				$431,000
	2005				$509,000

TIMBER
PRODUCTION AND VALUES 2005-05

CROP	YEAR	$VALUE
TIMBER[9]	2006	$16,000
	2005	$62,000

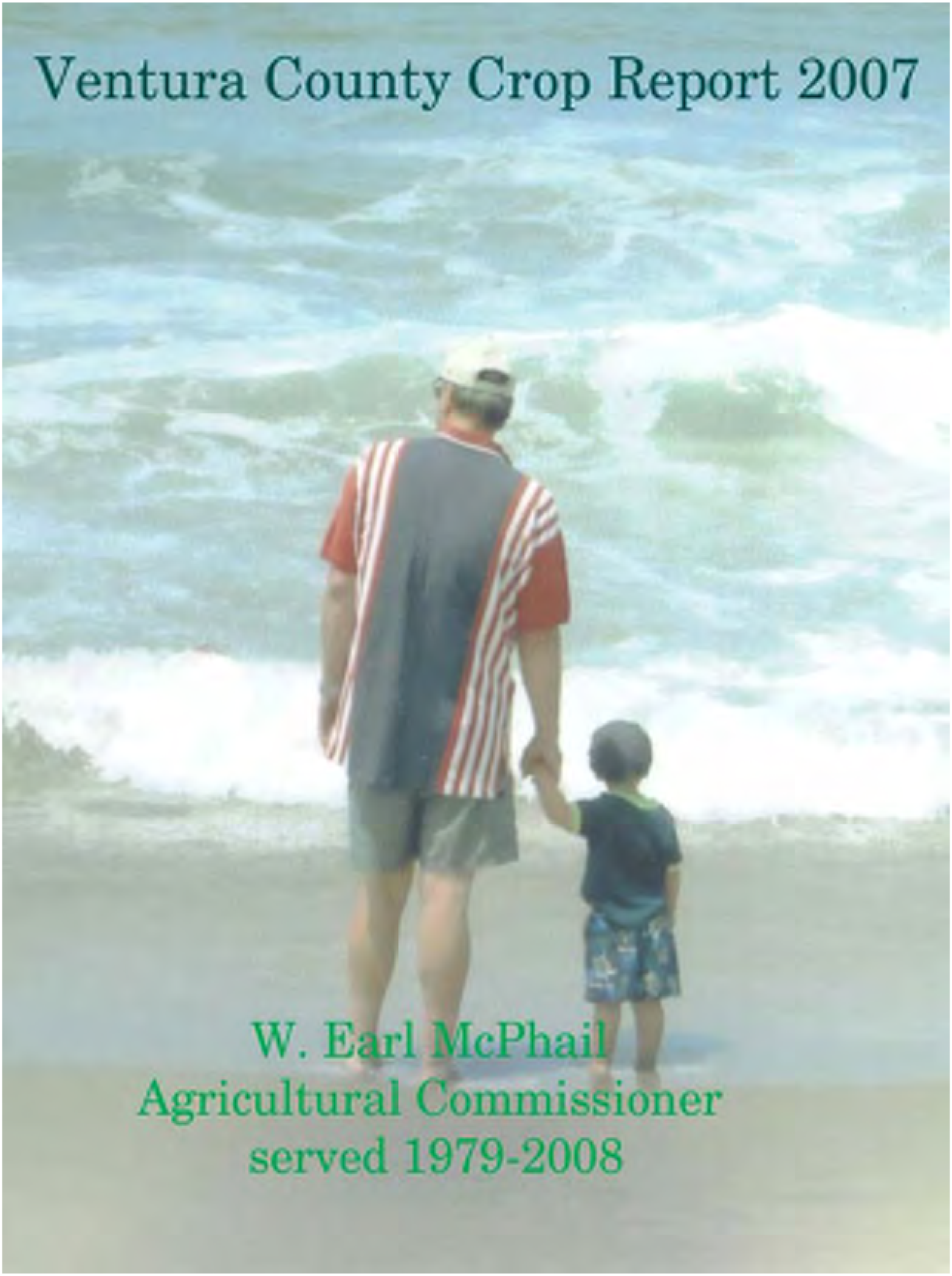
8 Timber harvested for lumber

SUSTAINABLE AGRICULTURE

ITEM	PEST	AGENT	SCOPE OF PROGRAM
BIOLOGICAL CONTROL Commercial Insectaries	Red and black scale, Mealybug, snails, various aphids mites and flies	Aphytus melinus, Cryptolemus, Decollate snails, various predators, parasitic wasps and nematodes	Estimate 569,165,225 beneficials, released on 226 ranches. Valued at $2,570,000
COLONIZATION OF BENEFICIAL ORGANISMS	Yellow Star Thistle	Puccinia jacaea	1 site/1 release 100 mg spores/sq. meter
PEST ERADICATION	Dalmation Toadflax	Mechanical/ Digging	1 Site
	Scotch Thistle	Mechanical/ Digging	1 Site
	Spotted Knapweed	Mechanical/ Digging	1 Site
	Smooth Distaff Thistles	Mechanical/Digging	1 Site
	Euphorbia terracina	Mechanical/Digging	1 Site
PEST EXCLUSION		Incoming Shipments	
	Various	Postal/UPS/Fed Express (Parcels)	7,309
		Truck/Air Freight	4,268
	Gypsy Moth	Household Goods (Inspections)	97
		Total	11,674

ORGANIC FARMING	Number of registered growers	47	Vegetables	Acreage	1,888
			Fruits and Nuts	Acreage	2,883
			Field Crops	Acreage	362
			Flowers	Acreage	14
		Total Acreage			5,147

Ventura County Crop Report 2007



W. Earl McPhail
Agricultural Commissioner
served 1979-2008

Office of
AGRICULTURAL COMMISSIONER
P.O. Box 889, Santa Paula, CA 93061
815 East Santa Barbara Street
Telephone: (805) 933-2196
FAX: (805) 525-8922

Agricultural Commissioner
W. Earl McPhail

Chief Deputy
Susan L. Johnson

July 13, 2008

TO: THE HONORABLE BOARD OF SUPERVISORS OF VENTURA COUNTY

LINDA PARKS	District 2
STEVE BENNETT	District 1
KATHY LONG	District 3
PETER FOY-chair	District 4
JOHN K. FLYNN	District 5

and
A. G. KAWAMURA, SECRETARY,
California State Department of Food and Agriculture

Pursuant to Section 2279 of the California Food and Agricultural Code, I hereby submit the Ventura County Annual Crop and Livestock Report for 2007.

The estimated gross value for Ventura County agriculture for Calendar year 2007 is $1,549,988,000. This is an overall increase of $41,812,000 from 2006. This report reflects gross values only and does not represent the net return to growers.

Highlights of the 2007 Crop Report are as follows:

- Strawberries are, once again, the leading commodity in 2007 with a value of $366,428,000.
- Nursery Stock second in crop value increased by $ 29,099,000.
- Lemons recovered well from the freeze in 2006 and increased in value by $43,573,000
- Raspberries surpassed Avocados but decreased in value by $11,885,000
- Avocados devastated by the 2006 freeze decreased in value by $34,480,000

I wish to thank all the individuals, producers, processors, and government agencies whose co-operation and assistance contributed to preparing this report. My sincerest thanks and appreciation must be especially extended to my Deputy Agricultural Commissioner Kerry DuFrain, as well as all department staff for their efforts in compiling and finalizing this report.

Respectfully submitted,

W. Earl McPhail

W. Earl McPhail
Agricultural Commissioner
County of Ventura

Dedication

The 2007 Ventura County Crop Report is dedicated to "Da Boss". W. Earl McPhail came to Ventura County in 1979 as the youngest Agricultural Commissioner ever appointed in California. His wife Willa and two children Wayne and Rachael came with him from El Centro and settled in Santa Paula, where Willa began a 20 year teaching career. She took a break, in 1981 when their third child Adam, now with County Animal Regulation, came along. Earl was born and raised in the Imperial Valley. He married Willa, his college sweetheart, while attending California Polytechnic University at Pomona. After graduating with a degree in Agricultural Biology, Earl went to work for the Santa Cruz Agricultural Commissioner. After a short stint on the coast he returned to El Centro where he filled various positions with the Agricultural Commissioner until he was hired by Ventura County.

During his nearly thirty years as Agricultural Commissioner he has dealt with disastrous fires, floods, freezes and 70 mph Santa Ana winds. In 1994 the Northridge earthquake leveled parts of the Santa Clarita Valley. He has seen Ventura County go from an area dominated by oranges, lemons and celery to one in which urban interests compete with agriculture for some of the most productive land in the world. Strawberries and nursery stock are now the dominant crops in value. Avocados joined citrus and celery in the top ten crop list. Ventura County, always an area where open space and rural life were valued, is now one of the "Innovators" in promoting slow growth, and open space in California. Only 60 miles north of Los Angeles, agriculture and the view that comes with it still dominate the landscape. This has posed unique challenges for the Commissioner as schools, residential areas and parks move in just across the street from crops, and most of the population has never worked on or in agriculture. Earl approached it all with class and a level head, no matter how hard the boat rocked.

*The staff at the Agricultural Commissioners office wishes "**the best boss we ever had**" and his family a wonderful retirement. We know that he will continue to be active, on the Sheriff's Posse, the Rotary and in various community organizations. But we are sure that his best role will be as "Pop" to grandson Noah Jacob, born to veterinarians Rachael and Phillip in 2005.*

Office of the
AGRICULTURAL COMMISSIONER

W. Earl McPhail – AGRICULTURAL COMMISSIONER

CHIEF DEPUTY AGRICULTURAL COMMISSIONER:

Susan L. Johnson

DEPUTY AGRICULTURAL COMMISSIONERS:

Kerry L. DuFrain   Rudy Martel   Alan D. Laird

CLERICAL:

Deanna Bowling   Bernice Muñoz   Lidia Harrison

FIELD STAFF:

SUPERVISING AGRICULTURAL BIOLOGISTS:

David Van Epp

AGRICULTURAL BIOLOGISTS:

Korinne Bell, Herb Bunch, Andy Calderwood, Ryan Casey, Tom Dimock, Tina Dwyer
Tim Fritch, Freddi Hermann, Ellen Kragh, Meredith Martin, Dexter McDonald
George Mendoza, Louis Ortali, Michael Silverman, Bruce Spiller, Heidi Wong

AGRICULTURAL PLANNER:

Rita Graham

INSECT DETECTION SPECIALISTS:

Clifford Ball, Becky Battleson, Linda Bellamy, Douglas Crissman, Francisco Hernandez, Barbara, Miller,
Amado Mijares, Jose Muñoz, Connie Ratner, , John Salzwedel, David Soriano

EXTRA HELP

Glen Hackworth, Rosie Leidig, Monica McPhail, Vida Sondors

Front Cover Photo:

Earl and Noah at the beach

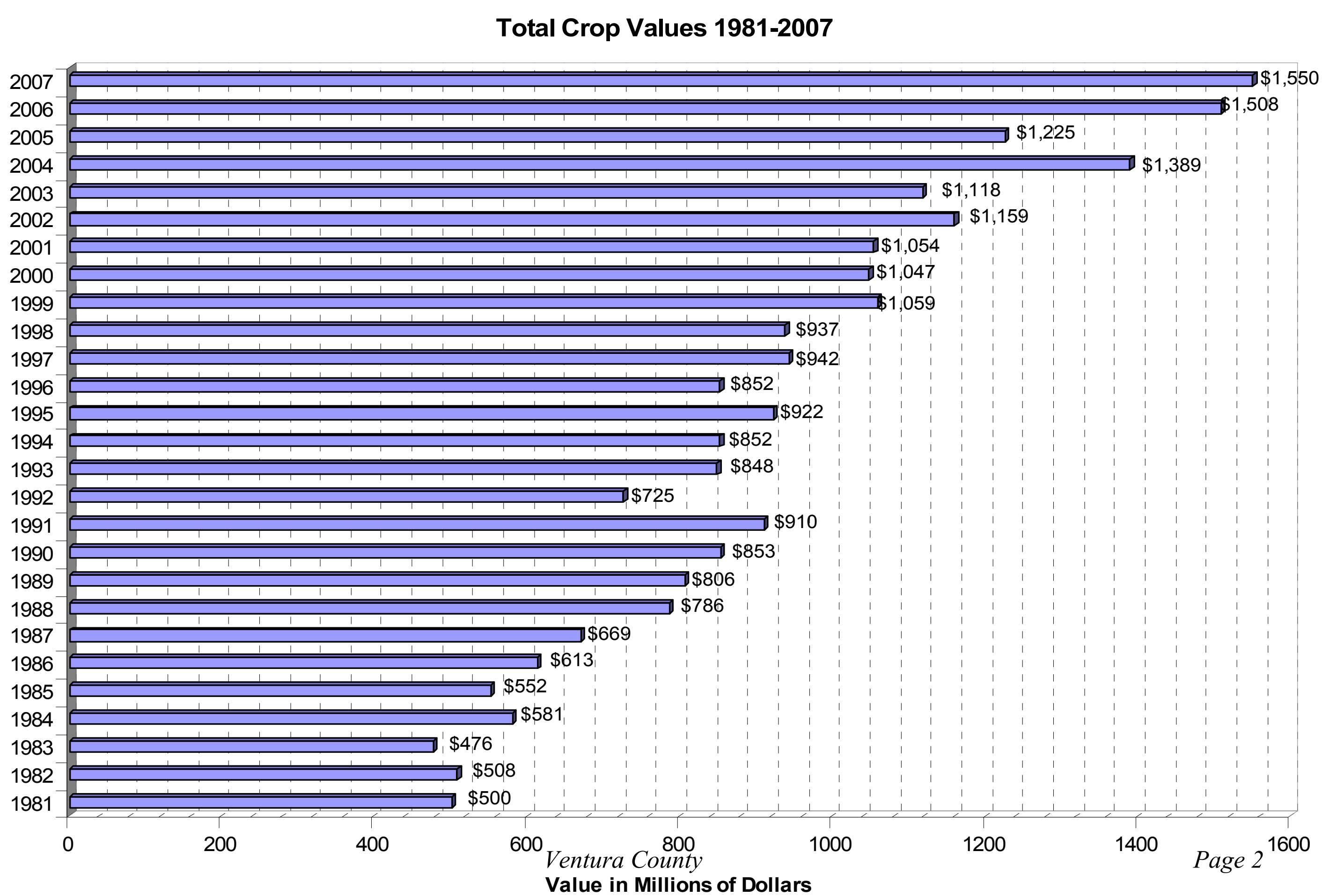
AGRICULTURAL CROP REPORT
Recapitulation and Index
2006 – 2007

[1] Figures are rounded off to nearest $1000
[2] Includes Cut Christmas Trees

Five Year Comparison Of

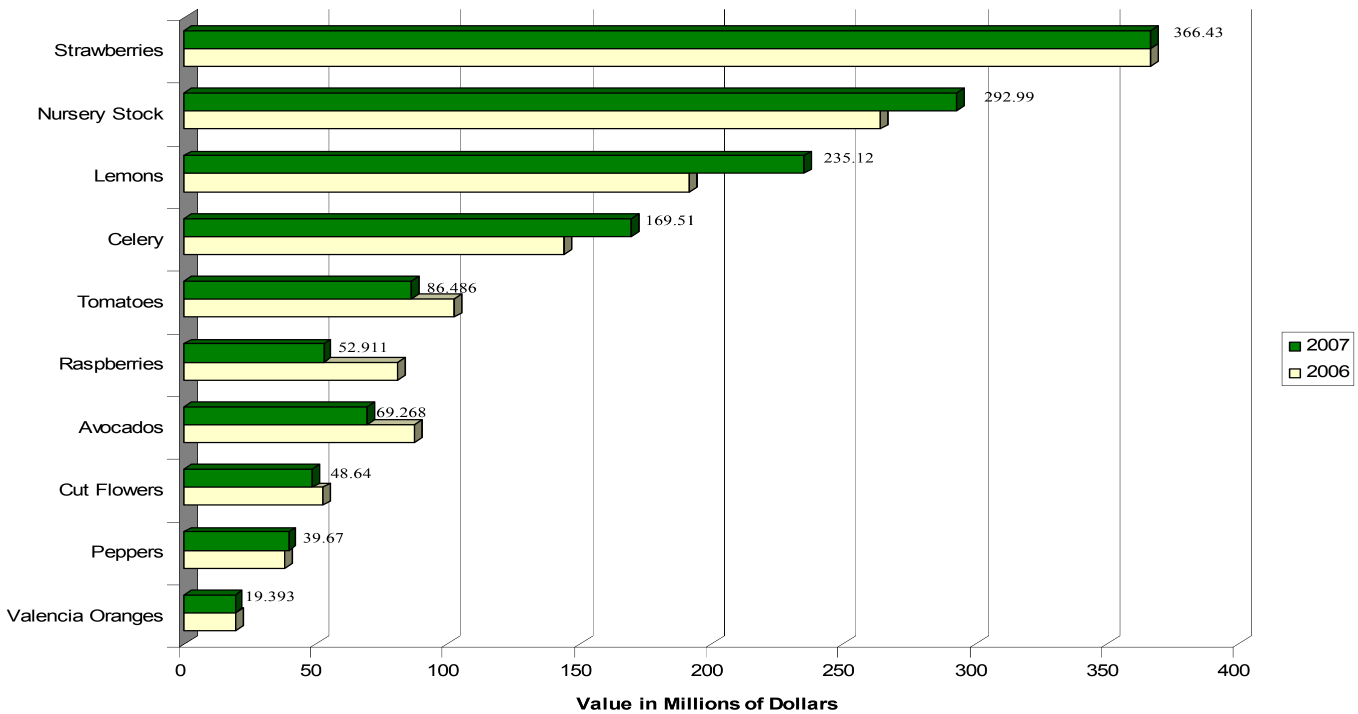
Ventura County Crop Values

	2003	2004	2005	2006	2007
Fruit and Nut Crops	591,667,000	740,039,000	652,777,000	755,700,000	752,138,000
Vegetable Crops	298,743,000	354,514,000	330,269,000	426,659,000	442,220,000
Livestock and Poultry Products	2,216,000	1,942,000	2,150,000	4,775,000	9,006,000
Apiary Products	1,339,000	362,000	509,000	431,000	640,000
Nursery Stock	173,262,000	222,514,000	213,661,000	263,890,000	292,989,000
Cut Flowers	44,515,000	65,663,000	51,751,000	52,456,000	48,646,000
Field Crops	3,108,000	2,270,000	1,193,000	1,667,000	1,624,000
Timber	61,000	71,000	62,000	16,000	17,000
Biological Control	2,807,000	2,337,000	1,999,000	2,570,000	2,718,000
GRAND TOTAL	$1,117,628,000	$1,389,452,000	$1,225,109,000	1,508,174,000	1,549,988,000



TEN LEADING CROPS FOR 2007

RANK	CROP	VALUE
1st	Strawberries	$366,428,000
2nd	Nursery Stock	292,989,000
3rd	Lemons	235,124,000
4th	Celery	169,512,000
5th	Tomatoes	86,486,000
6th	Raspberries	69,268,000
7th	Avocados	52,911,000
8th	Cut Flowers	48,646,000
9th	Peppers	39,676,000
10th	Valencia Oranges	19,393,000



OTHER MILLION DOLLAR CROPS

Greens	16,478,000	Carrots	5,043,000
Cilantro	13,420,000	Orchids*	3,926,000
Cabbage	10,602,000	Oriental Vegetables	3,665,000
Lettuce	9,660,000	Onions (all)	3,579,000
Spinach	9,206,000	Beet	3,125,000
Livestock	9,006,000	Kale	3,078,000
Veg. Transplants*	7,085,000	Cucumber	2,967,000
Parsley	6,883,000	Beans (all)	2,894,000
Radishes	5,931,000	Poinsettia*	2,105,000
Broccoli	5,610,000	Naval Oranges	1,822,000

* Included in Nursery Stock total above

FRUIT AND NUT CROPS
ACREAGE, PRODUCTION AND VALUES 2006-07

		PRODUCTION				$ VALUE	
CROP	YEAR	HARVESTED ACREAGE	PER ACRE	TOTAL	UNIT	PER UNIT	TOTAL
AVOCADOS	2007	16,050	1.63	26,160	Tons	$2,022.59	$52,911,000
	2006	16,417	4.85	79,646	“	1,097.24	87,391,000
GRAPEFRUIT							
Total	2007	83	8.25	685	“	672.99	461,000
	2006	85	7.46	634	“	820.19	520,000
LEMONS							
Total	2007	18,892	16.67	320,592	“	733.41	235,124,000
	2006	19,100	20.68	394,958	“	484.99	191,552,000
ORANGES (Navel)	2007	394	9.52	3,752	“	485.61	1,822,000
Total	2006	455	9.27	4,218	“	341.63	1,441,000
ORANGES (Valencia)							
Total	2007	4,273	9.25	39,522	“	490.69	19,393,000
	2006	4,377	12.14	53,146	“	371.32	19,734,000
RASPBERRIES	2007	1,592	7.50	11,940	“	5,801.34	69,268,000
	2006	1,492	8.36	12,473	“	6,506.29	81,153,000
STRAWBERRIES							
Total	2007	12,048	24.17	291,227	“	1,258.22	366,428,000
	2006	11,936	26.76	319,418	“	1,146,80	366,310,000
Fresh	2007			183,559	“	1,604.02	294,432,000
	2006			237,168	“	1,342,09	318,301,000
Processed	2007			107,668	“	668.69	71,996,000
	2006			82,250	“	583.70	48,009,000
TANGERINES &	2007	349	3.88	1,355	“	1,608.12	2,179,000
TANGELOS	2006	253	7.40	1,872	“	977.03	1,829,000
MISC. FRUITS	2007	733					4,552,000
AND NUTS[3]	2006	526					5,770,000
TOTAL	2007	54,414					$752,138,000
	2006	54,641					$755,700,000

[3] MISC. FRUITS AND NUTS include Apples, Apricots, Asian Pears, Bushberries, Cherimoya, Grapes, Guavas, Kiwi, Limes, Persimmons, Macadamias, Walnuts; and miscellaneous citrus, deciduous, and subtropicals

VEGETABLE CROPS
ACREAGE, PRODUCTION AND VALUES 2006-07

CROP	YEAR	PRODUCTION HARVESTED ACREAGE	PER ACRE	TOTAL	UNIT	$ VALUE PER UNIT	TOTAL
BEANS							
Green and							
Dry Limas,	2007	1,458	2.52	3,673	Tons	$787.91	$2,894,000
Green Snap	2006	2,724	2.29	6,233	"	$742.66	$4,629,000
BEETS	2007	385	11.66	4,490	"	695.99	3,125,000
	2006	261	9.02	2,354	"	1,008.50	2,374,000
BROCCOLI							
Fresh and	2007	1,059	8.91	9,431	"	594.85	5,610,000
Processed	2006	1,140	8.42	9,596	"	694.46	6,664,000
CABBAGE	2007	2,420	18.83	45,577	"	232.62	10,602,000
	2006	2,768	25.89	71,671	"	210.66	15,098,000
CARROTS	2007	963	25.19	24,260	"	207.87	5,043,000
	2006	571	19.21	10,967	"	302.64	3,319,000
CELERY	2007	11,585	36.34	421,026	"	402.62	169,512,000
	2006	11,917	36.93	440,151	"	327.87	144,313,000
CILANTRO	2007	3,037	8.56	25,988	"	516.39	13,420,000
	2006	1,490	7.79	11,614	"	731.44	8,495,000
CUCUMBERS[4]	2007	60	29.43	1,766	"	1,680.07	2,967,000
	2006	117	19.09	2,233	"	1,315.72	2,938,000
GREENS[5]	2007	1,459	6.76	9,867	Tons	1,670.01	16,478,000
	2006	1,488	-	1,917,852	Ctns	8.35	16,007,000
KALE	2007	270	12.51	3,378	Tons	911.19	3,078,000
	2006	215	5.25	1,128	"	1,106.38	1,248,000
LETTUCE	2007	1,782	11.45	20,412	"	473.25	9,660,000
Total	2006	2,530	11.08	28,041	"	494.35	13,862,000
Head	2007	198	17.63	3,490	"	226.07	789,000
	2006	388	16.09	6,244	"	359.22	2,243,000
Romaine	2007	861	12.42	10,697	"	402.54	4,306,000
	2006	987	13.61	13,435	"	360.40	4,842,000
Leaf	2007	723	8.61	6,225	"	733.33	4,565,000
	2006	1,155	7.24	8,362	"	810.45	6,777,000

[4] Includes hydroponics
[5] Includes: chard, collard, mustard, turnip and watercress.

VEGETABLE CROPS
ACREAGE, PRODUCTION AND VALUES 2006-07

		PRODUCTION				$ VALUE	
CROP	YEAR	HARVESTED ACREAGE	PER ACRE	TOTAL	UNIT	PER UNIT	TOTAL
ONIONS	2007	395	20.53	8,111	Tons	$441.25	$3,579,000
Green & Dry	2006	595	13.44	7,995	"	$616.26	$4,927,000
ORIENTAL VEG.	2007	544	10.93	5,948	"	616.17	3,665,000
	2006	1,175	8.51	10,003	"	613.32	6,135,000
PARSLEY	2007	501	18.46	9,246	"	744.43	6,883,000
	2006	349	9.81	3,424	"	868.57	2,947,000
PEPPERS							
Bell and	2007	3,029	23.65	71,630	"	553.90	39,676,000
Chili	2006	2,483	21.24	52,745	"	723.06	38,138,000
PUMPKIN	2007	131	13.79	1,807	"	178.75	323,000
	2006	98	10.79	1,057	"	298.96	316,000
RADISHES	2007	984	12.68	12,476	"	475.39	5,931,000
	2006	754	11.80	8,898	"	462.24	4,113,000
SPINACH	2007	1,791	5.81	10,414	"	884.00	9,206,000
	2006	1,256	9.29	11,671	"	728.99	8,508,000
SWEET CORN	2007	272	6.88	1,872	"	520.03	974,000
	2006	467	7.01	3,273	"	273.14	894,000
TOMATOES[6]	2007	1,540	54.34	83,685	"	1,033.47	86,486,000
	2006	1,741	63.26	110,140	"	929.96	102,426,000
VEGETABLES,							
MISC.[7]	2007	1,539					43,108,000
Field, Indoor, and Processed	2006	1,594					39,308,000
TOTAL	2007	35,204					$442,220,000
	2006	35,733					$426,659,000

[6] Includes hydroponics

[7] Includes: artichokes, arugula, asparagus, baby vegetables, carrot, cauliflower, eggplant, endive, garlic, gourds, herbs, kohlrabi, leeks, melons, mushrooms, peas, radicchio, sprouts, squash, tomatillos, and turnips.

NURSERY STOCK

PRODUCTION AND VALUES 2006-07

ITEM	YEAR	PRODUCTION		PRODUCTION AREA Greenhouse Square Feet	Field Acres	Per Unit	TOTAL
NURSERY STOCK							
	2007			7,569,379	4,914		$292,989,000
	2006	--------	Trees	6,443,219	4,588		$263,890,000
Fruit and Nut	2007	711,392	Trees		93	14.29	10,166,000
Trees	2006	841,299	Trees		130	14.29	12,025,000
Potted Plants	2007	3,445,402	Pots	2,928,135	48	4.08	14,073,000
	2006	2,916,719	Pots	2,255,902	45	4.26	12,420,000
Propagative Mat	2007	51,407,075	Cuttings	724,320	15	.14	7,112,000
	2006	53,356,142	Cuttings	497,360	10	.09	4,554,000
Herb. Perennials	2007	7,846,081	Containers	852,384	144	2.46	19,330,000
	2006	4,149,303	Containers	765,465	115	2.87	11,905,000
Woody Orn.*	2007	14,294,495	Tree/Shrubs	737,900	2,688	11.85	169,377,000
	2006	12,735,362	Tree/Shrubs	695,150	2,064	11.30	143,788,000
Bed. Plants	2007	57,772,388	Flats	571,690	1,924	1.14	65,846,000
Gr. Cover & Turf	2006	62,399,363	Flats	730,200	2,218	1.10	68,714,000
Veg. Transplants	2007	3,043,410	Flats	1,754,950	2	2.33	7,085,000
	2006	4,280,914	Flats	1,499,142	6	2.45	10,484,000
TOTAL	2007						$292,989,000
	2006						$263,890,000

*Includes cut Christmas Trees

CUT FLOWERS
PRODUCTION AND VALUES 2006-07

ITEM	YEAR	ACRES	PRODUCTION	UNIT	TOTAL $ VALUE
FLOWER BLOOMS &	2007	30	13,887,547	Blooms	$4,130,000
STEMS	2006	29	12,804,501	Blooms	$3,791,000
CUT GREENS & DRIED	2007	152	498,546	Bunches	1,463,000
FLOWERS	2006	88	438,444	Bunches	658,000
FLOWER BUNCHES	2007	738	14,099,052	Bunches	43,053,000
Total	2006	803	17,972,092	Bunches	48,007,000
Statice, Lace, Aster	2007	104	1,619,489	"	3,917,000
And Gypsophila	2006	113	1,891,849	"	4,031,000
Chrysanthemums and	2007	59	2,136,414	"	4,013,000
Sunflowers	2006	56	3,511,000	"	4,609,000
Lilies & Irises	2007	62	3,087,443	"	15,973,000
	2006	61	3,129,386	"	15,339,000
Lisianthus	2007	27	630,515	"	2,133,000
	2006	33	582,433	"	2,298,000
Delphinium, Larkspur,	2007	284	2,776,686	"	5,699,000
Stock & Snapdragons	2006	281	4,306,411	"	9,749,000
Miscellaneous	2007	202	3,848,505	"	11,318,000
	2006	259	4,549,000	"	11,981,000
TOTAL	2007	920			$48,646,000
	2006	920			$52,456,000

FIELD CROPS
ACREAGE, PRODUCTION AND VALUE 2006-07

CROP	YEAR	HARVESTED ACREAGE	TOTAL $ VALUE
ALFALFA AND PASTURE	2007	100,106	$1,071,000
Irrigated and Non-Irrigated	2006	100,085	$1,005,000
GRAIN[8], HAY,	2007	1,248	553,000
& VEGETABLE SEED	2006	972	672,000
TOTAL	2007		$1,624,000
	2006		$1,677,000

[8] Includes green barley

LIVESTOCK AND POULTRY
PRODUCTION AND VALUES 2006-07

ITEM	YEAR	PRODUCTION	UNIT	$ VALUE PER UNIT	$ VALUE TOTAL
LIVESTOCK					
Cattle, Hogs	2007	20,339	cwt.	108.41	$2,205,000
Sheep	2006	20,270	cwt.	117.61	$2,384,000
POULTRY					
Chickens and	2007				6,531,000
Eggs	2006				2,376,000
OTHER LIVESTOCK	2007				270,000
	2006				15,000
TOTAL	2007				$9,006,000
	2006				$4,775,000

APIARY PRODUCTS
PRODUCTION AND VALUES 2006-07

CROP	YEAR	PRODUCTION	UNIT	$ VALUE PER UNIT	$ VALUE TOTAL
HONEY	2007	210,605	lbs	$1.32	$279,000
	2006	264,114	lbs.	$1.02	$269,000
BEESWAX	2007	2,340	"	2.14	5,000
	2006	7,740	"	1.94	15,000
POLLINATION USE	2007				356,000
	2006				147,000
TOTAL	2007				$640,000
	2006				$431,000

TIMBER
PRODUCTION AND VALUES 2006-07

CROP	YEAR	$VALUE
TIMBER[9]	2007	$17,000
	2006	$16,000

SUSTAINABLE AGRICULTURE

ITEM	PEST	AGENT	SCOPE OF PROGRAM
BIOLOGICAL CONTROL Commercial Insectaries	Red and black scale, Mealybug, snails, various aphids mites and flies	Aphytus melinus, Cryptolemus, Decollate snails, various predators, parasitic wasps and nematodes	Estimate 616,577,300 beneficials, released on 238 ranches. Valued at $2,718,000
COLONIZATION OF BENEFICIAL ORGANISMS	Yellow Star Thistle	Puccinia jacaea	1 site/1 release 100 mg spores/sq. meter
PEST ERADICATION	Dalmation Toadflax	Mechanical/ Digging	1 Site
	Scotch Thistle	Mechanical/ Digging	1 Site
	Spotted Knapweed	Mechanical/ Digging	1 Site
	Euphorbia terracina	Mechanical/Digging	1 Site
PEST EXCLUSION		Incoming Shipments	
	Various	Postal/UPS/Fed Express (Parcels)	10,940
		Truck/Air Freight	1,414
	Gypsy Moth	Household Goods (Inspections)	85
		Total	12,439

ORGANIC FARMING	Number of registered growers	67			
			Vegetables & Herbs	Acreage	1,500
			Fruits and Nuts	Acreage	3,045
			Field Crops	Acreage	361
			Flowers	Acreage	11
			Total Acreage		4,917

Appendix F
Phase I Environmental Site Assessment

RBF
CONSULTING

PLANNING ▮ DESIGN ▮ CONSTRUCTION

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

Sakioka Farms
427-Acre Agricultural Site

(APNs 216-0-030-065, 075, 085, and 105)
City of Oxnard
County of Ventura, State of California

Prepared For:

SAKIOKA FARMS
3183-a Airway Avenue, Suite 2
Costa Mesa, California 92626-4611
Contact: Mr. Jeffrey D. Littell, Chief Operating Officer
714/434-9318

Consultant:

RBF CONSULTING
14725 Alton Parkway
Irvine, California 92618
Contact: Mr. Bruce R. Grove Jr., REA
949/855-3686

August 2, 2002

JN 30-100333

STATEMENT OF ENVIRONMENTAL PROFESSIONALS

Statement of Quality Assurance

I have performed this Assessment in accordance with generally accepted environmental practices and procedures, as of the date of this report. I have employed the degree of care and skill ordinarily exercised under similar circumstances by reputable environmental professionals practicing in this area. The conclusions contained with this Assessment are based upon site conditions I readily observed or were reasonably ascertainable and present at the time of the site inspection.

The conclusions and recommendations stated in this report are based upon personal observations made by employees of RBF and upon information provided by others. I have no reason to suspect or believe that the information provided is inaccurate.

Signature of RBF Environmental Assessor-*Richard Beck*

Richard Beck

Signature/Environmental Assessor

Statement of Quality Control

The objective of this Environmental Site Assessment was to ascertain the potential presence or absence of environmental releases or threatened releases that could impact the subject site, as delineated by the Scope-of-Work. The procedure was to perform reasonable steps in accordance with the existing regulations, currently available technology, and generally accepted engineering practices in order to accomplish the stated objective.

The Scope of this Assessment does not purport to encompass every report, record, or other form of documentation relevant to the subject site being evaluated. Additionally, this Assessment does not include or address reasonable ascertainable Environmental Liens currently recorded against the subject site. To the best of my knowledge, this Environmental Site Assessment has been performed in compliance with RBF Standard Operating procedures protocol for Phase I Environmental Site Assessments.

Signature of RBF Environmental Project Manager-*Bruce R. Grove Jr., REA #06865, CEI #14551*

Signature/Environmental Project Manager

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1.0

INTRODUCTION

The purpose of conducting this Phase I Environmental Site Assessment is to permit the use of this report to satisfy one of the requirements to qualify for the Innocent Landowner Defense to CERCLA (Superfund Law) liability, by providing an appropriate inquiry into the previous uses of the property in order to identify ***Recognized Environmental Conditions.*** *As defined in ASTM Standard Practice E 1527-00, a* ***Recognized Environmental Condition (REC)*** *is "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property." The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include* ***"de minimis"*** *conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be* ***"de minimis"*** *are not* ***Recognized Environmental Conditions.***

1.1 SUBJECT SITE

The approximate 427-acre Sakioka Farms Property, herein referenced as the "subject site" within this Assessment is located east of Rice Avenue and south of State Route 101 (SR-101), within the City of Oxnard, County of Ventura, State of California (T.2N, R.21W, SBBM) (refer to Exhibit 1, *Regional Vicinity* and Exhibit 2, *Site Vicinity*). The subject site is comprised of four (4) rectangular shaped, partially developed parcels, which are described as Assessor's Parcel Numbers (APNs) 216-0-030-065 (202.83-acres), 216-0-030-075 (26.44-acres), 216-0-030-085 (172.17-acres), and 216-0-030-105 (25.76-acres). Collectively, the parcels comprise a gross area of approximately 427-acres and presently consist of bare soil, row crops, agricultural drainages, and maintenance yards (refer to Exhibit 3A, *Subject Site-Parcel Map*). One (1) of the four (4) parcels (APN 216-0-030-065) has a street address described as 2190 Rice Avenue.

Several unimproved roadways are located within the boundaries of the subject site; on-site access is provided via an unimproved dirt road immediately west of the Rice Avenue/Gonzales Road intersection. On-site topography is approximately 70 feet above mean sea level (msl) and gently slopes to the southeast. Several agricultural drainages (used for irrigation) are located within the boundaries of the subject site. Primarily, the drainages are located on the eastern and southern boundaries of the subject site; however, one (1) central drainage conveys water east to west, eventually discharging off-site.

RBF CONSULTING

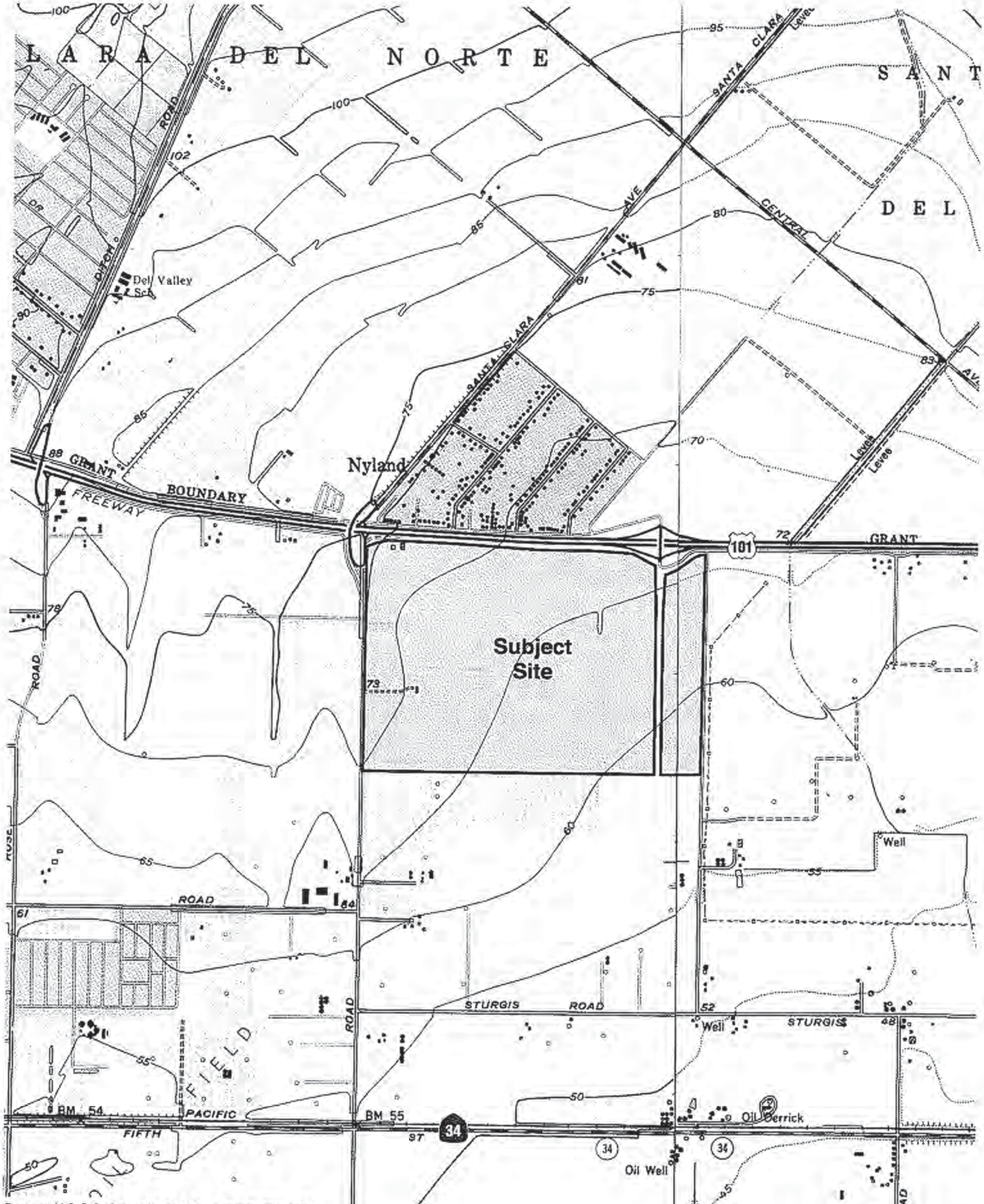
not to scale

7/25/02 JN 30-100333-9808

SAKIOKA FARMS 427-ACRE SITE • PHASE 1 ESA

Regional Vicinity

Exhibit 1



Source: U.S.G.S. Camarillo, CA Quadrangle, rev. 1967
U.S.G.S. Oxnard, CA Quadrangle, rev. 1967

RBF CONSULTING

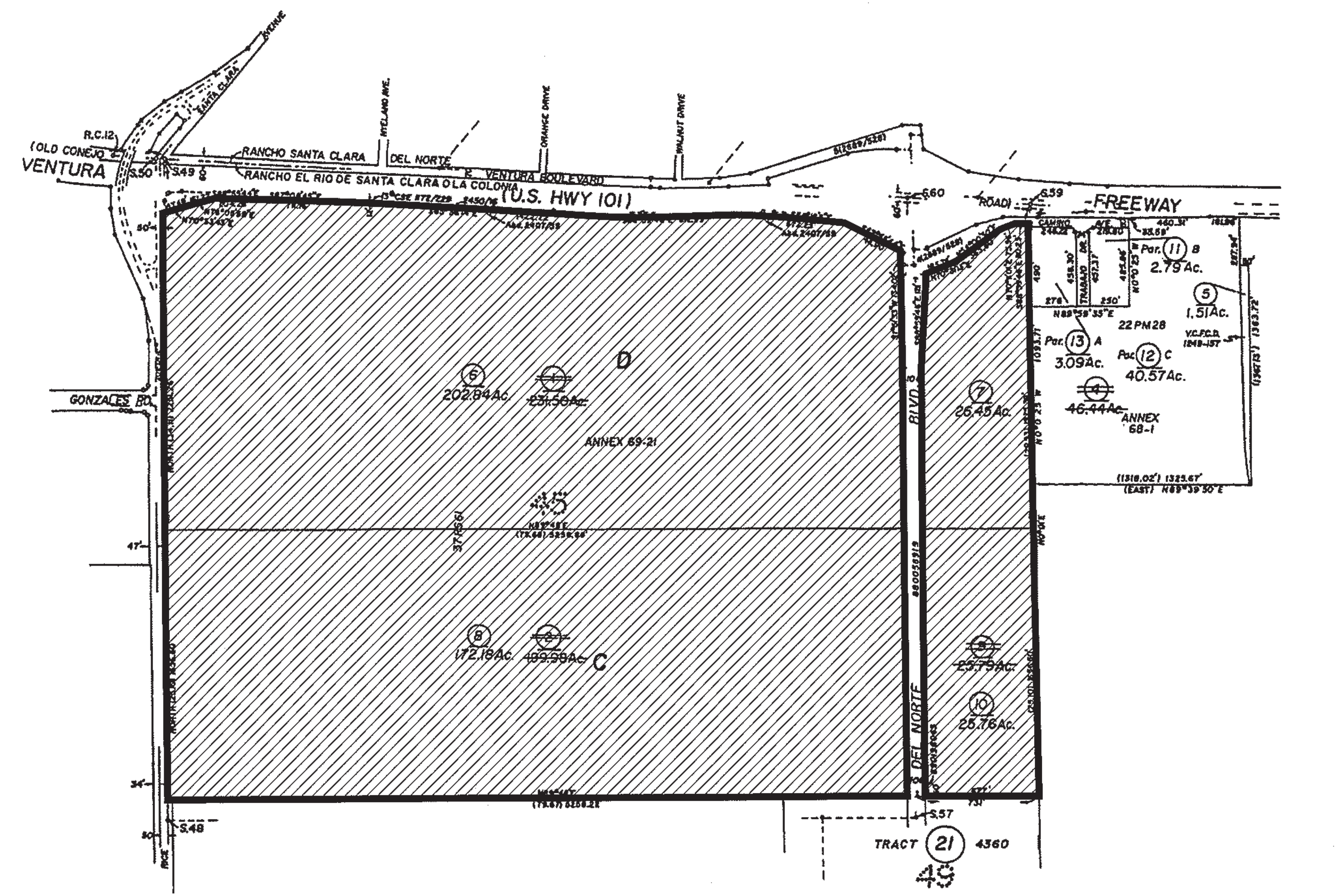
0 2000'

7/29/02 JN 30-100333-8605

SAKIOKA FARMS 427-ACRE SITE • PHASE 1 ESA

Site Vicinity

Exhibit 2



Source: Ventura County Assessor's Map, Book 216, Page 03.

RBF CONSULTING

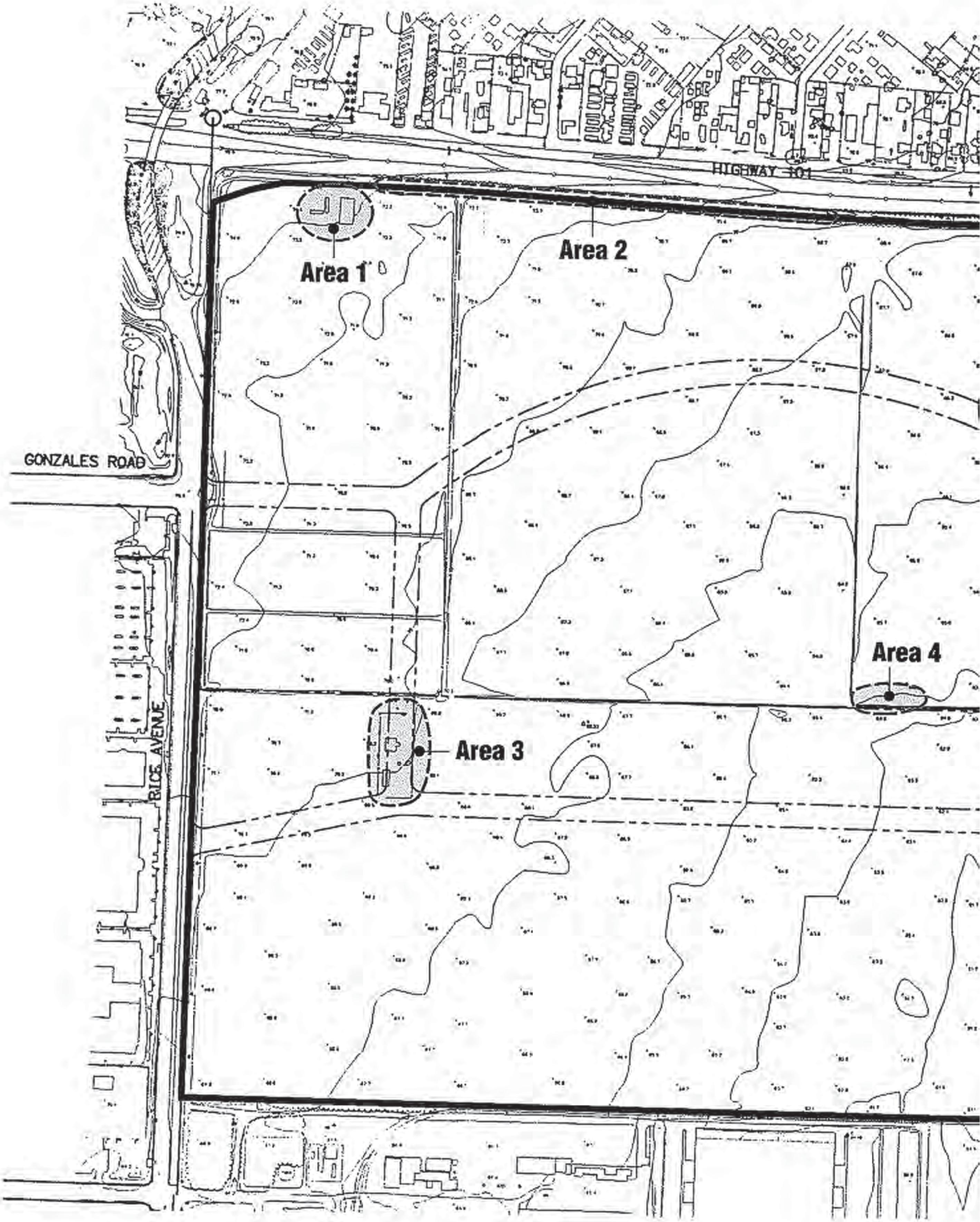
0 2000'

7/22/02 JN 30-100333-9605

SAKIOKA FARMS 427-ACRE SITE • PHASE 1 ESA

Subject Site - Parcel Map

Exhibit 3A



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not to scale

7/31/02 JN 30-100333-9605

Area 3:

Area 3 is located within the western portion of the subject site; boundaries of the **Area** are primarily delineated by wood fencing. Generally, **Area 3** is considered a staging and maintenance area for agricultural activities. The **Area** consists of maintenance garages, agricultural equipment (i.e., tractors, irrigation piping), chemical storage, and a fertilizer/pesticide mixing area.

Area 3 consists of eight (8) structures which are utilized as storage garages and sheds. Two (2) of the 8 structures are utilized as garages and are of wood frame construction with sheet metal roofs. One (1) of the structures (the lager garage to the south) has a concrete foundation and currently houses irrigation piping supplies. The second structure appeared to be on bare soil and resembled a car port/parking garage. Two (2) automobiles were parked within the garage during the July 23, 2002 site inspection. Approximately five (5) equipment storage sheds/trailers were noted within **Area 3** during the July 23, 2002 site inspection. The storage sheds/trailers appeared to be maintenance/parts sheds; however, access to the on-site sheds was restricted during the July 23, 2002 site inspection. One (1) of the sheds/trailers appeared to have hazardous materials signage and was locked during the site inspection. Interviews with on-site field workers confirmed that the storage shed housed hazardous materials such as fertilizers and pesticides.

Areas 4-7:

No structures were located within **Areas 4** through **7** during the July 23, 2002 site inspection. These on-site **Areas** primarily housed generators, above ground storage tanks (ASTs), and were utilized for equipment storage (i.e., tractor parking).

An interview with Mr. Kaihara, a Sakioka Farms Representative, indicated that six (6) former oil/gas wells are located within the boundaries of the subject site. To Mr. Kaihara's knowledge, all six (6) wells have been abandoned and capped. At the time of this Assessment, five (5) of the on-site gas/oil wells have been located and investigated. The sixth well is apparently located within the current cabbage crop (located within the northwestern portion of the subject site, but west of Del Norte Boulevard). It was noted that once the cabbage is harvested, the sixth well will be surveyed, located, and investigated. Mr. Kaihara also indicated that Padre & Associates is currently preparing a report regarding the six (6) on-site wells (refer to Section 3.0, for a complete discussion).

The subject site is generally situated within a mixed use area of the City of Oxnard. Surrounding land uses consist of commercial and light industrial uses to the north (opposite of SR-101); commercial and agricultural uses to the east; industrial uses and vacant land to the south; and commercial and industrial uses to the west.

Refer to Section 2.0, *Physical Setting*, for a complete description of on-site and off-site conditions.

1.1.1 Anticipated Future Uses

According to Sakioka Farms and the most current development plans, future on-site uses are anticipated to consist of industrial/commercial/business uses (8.4 million square feet) (refer to Section 2.1.4 for zoning and land use information).

1.2 EXECUTIVE SUMMARY

A partial summary of results of the Phase I Environmental Site Assessment is as follows (refer to Sections 2.0 through 5.0 of this Assessment for a complete discussion of our investigation and conclusions):

1.2.1 Site Inspection

Evidence of recognized environmental conditions within the boundary of the subject site were observed during the July 23, 2002 site inspection which consisted of the following:

Several areas within the boundaries of the subject site were noted to contain various materials that have been identified as a source for creating a potential recognized environmental condition. These areas consist of existing aboveground storage tanks (ASTs), several 55-gallon drums, unsealed 5-gallon buckets (that were observed to contain waste-oil), pesticide mixing areas, stained soils, abandoned vehicle equipment (old tractors), and miscellaneous debris.

Area 1: Approximately seven (7) ASTs were noted within **Area 1** during the July 23, 2002 ~~site inspection. The on-site tanks appeared to be used for~~ different purposes; four (4) of the of the ASTs were elevated above a concrete foundation and appeared to store diesel or gasoline. The ASTs varied in size and petroleum odors were present. Although staining was observed, it appeared to be limited to the to the concrete pad. Two (2) of the ASTs appeared to contain gaseous mixtures such as oxygen and/or propane. One (1) of these tanks (which appeared to be a propane tank) was located near the diesel ASTs located on the eastern portion of the on-site structure. The second tank was smaller in size and was noted within the large on-site garage structure near the workbench area. The final AST was noted near the pesticide mixing area, immediately west of the mobile office trailer. The AST was elevated as it was situated on top of approximately seventeen (17) stacked pallets, of which were stacked on bare soil. RBF could not determine the contents of the AST during the July 23, 2002 site inspection. Minor staining was noted within the general work area of the AST, pesticide mixing area, equipment storage area, and garage. This staining appeared to be associated with on-site maintenance, was primarily limited to concrete portions of the **Area**, and is considered to be minor in nature.

Numerous 55-gallon drums, (approximately 30) were noted within the area. The 55-gallon drums appeared to be used for storage and debris as many were open and some were sealed. Approximately three (3) miscellaneous 5-gallon plastic buckets were noted around the large maintenance garage structure and appeared to contain waste-oil from on-site vehicles. Although no leakage was detected the buckets were full and uncovered/unsealed; therefore, causing concern for a material threat (accidental spill, improper storage).

As previously mentioned, one (1) pesticide mixing area was present within **Area 1**, which immediately joined the mobile office trailer to the north. According to an on-site interview with Mr. Fukutomi, this location is where pesticides are mixed for his portion of the subject site.

Area 2: Approximately five (5) ASTs were noted within **Area 2** (northern boundary). Four (4) of these ASTs (plastic construction) appeared to be utilized for liquid fertilizer storage; one (1) AST (metal construction) was dumped on it's side and appeared to be empty. No leakage or odor was noted within regards to the ASTs located within **Area 2**. Several 55-gallon drums were stored on pallets within **Area 2**, adjacent to the

Caltrans right-of-way fence and SR-101. Drums that were sealed appeared to be full; however, the contents of the 55-gallon drums remains undefined. Unsealed 55-gallon drums appeared to be utilized as trash cans and contained miscellaneous debris. Surficial straining was noted within the immediate vicinity of the drums; no odor was present within the vicinity of the 55-gallon drums during the July 23, 2002 site inspection. This staining appeared to be associated with on-site maintenance and is considered to be minor in nature.

Area 3: Approximately nine (9) ASTs were noted within the boundaries of **Area 3** during the July 23, 2002 site inspection. Three (3) of the ASTs (black hard plastic construction) appeared to be utilized for pesticide/fertilizer storage and distribution. Three (3) of the ASTs were of metal construction and appeared to contain gasoline/diesel. According to an on-site worker within **Area 3**, the AST located on southern side of the main garage was active and used for equipment fueling. In general, the metal gasoline ASTs were small in size and adapted with trailer hitches for mobile use. Two (2) white ASTs labeled "propane" were also noted within the central/northern portion of **Area 3**. No odor was detected within regards to the propane ASTs. One (1) water tank (hard plastic construction) was noted within the central portion of the **Area 3**; interviews with on-site workers confirmed that the storage tank contained water.

Approximately seven (7) 55-gallon drums were noted within the boundaries of **Area 3**. The 55-gallon drums that were sealed appeared to be full; however, the contents of the 55-gallon drums remains undefined. Unsealed 55-gallon drums appeared to be utilized as trash cans and contained miscellaneous debris. Two (2) of the drums were attached to a mobile tractor unit and appeared to contain oil for on-site farm equipment. Light surficial straining (approximately 2-feet in diameter) was noted directly underneath the drums/trailer; however, this staining appeared to be associated with on-site maintenance and is considered to be minor in nature. In addition to 55-gallon drums, two (2) unsealed 5-gallon buckets were noted on pallets within the southwestern portion of **Area 3**. One (1) bucket appeared to consist of waste-oil, while the other consisted of white material (which appeared to be fertilizer). Although no leakage was detected, the uncovered/unsealed buckets were full, and therefore, cause concern for a material threat (accidental spill, improper storage).

One (1) pesticide/fertilizer mixing area was present within **Area 3**, near the water AST (central portion of **Area 3**). Although the ground appeared moist, this appeared to be due to water tank, which is actively used. No oil sheen or odor was noted during the July 23, 2002 site inspection.

Area 4: One (1) AST (clear hard plastic construction) was noted within **Area 4**. The AST appeared to be ½-full; an attached label indicated that the tank contained "Urea Ammonia Nitrate, 15-0-0". No evidence of leakage or odor was noted within regards to the AST during the July 23, 2002 site inspection. It should be noted that one (1) gasoline/diesel generator was present within the boundaries of **Area 4** during the July 23, 2002 site inspection. The on-site generator appeared to be attached to irrigation equipment; no visible evidence of leakage or odor was noted.

Area 5: Three (3) 55-gallon drums were observed within **Area 5** during the July 23, 2002 site inspection. Two (2) of the unsealed 55-gallon drums appeared to be utilized as trash cans and contained miscellaneous debris. The third 55-gallon drum was sealed and the contents remained undefined. Five (5) 5-gallon plastic buckets were noted within the eastern portion of **Area 5**; however, the buckets were sealed and no signs of leakage or odor were noted. Additionally, one (1) pesticide/fertilizer mixing truck (with three plastic ASTs aboard) was noted within the boundaries of **Area 5**. Dark straining was noted within **Area 5**, approximately 7-feet from the northern fence. This staining was approximately 21-square feet in size and appeared to have dark, saturated surficial soils. RBF could not determine the vertical extent of the contamination (which appeared to be gasoline or oil related).

Area 6: One (1) mobile AST, which appeared to contain gasoline/diesel, was noted at **Area 6** during the July 23, 2002 site inspection. Evidence of staining was noted on the AST and immediately underneath the trailer hitch. The staining appeared to be minor in nature.

Area 7: One (1) gasoline/diesel generator was present at **Area 7** during the July 23, 2002 site inspection. The on-site generator appeared to be attached to irrigation equipment; no visible evidence of leakage or odor was noted.

1.2.2 Asbestos Containing Materials

Although permanent structures (built prior to 1978) are located within the boundaries of the subject site, the permanent structures are of wood frame construction with no insulation, tile flooring, or friable materials; therefore, the potential for asbestos containing materials (ACMs) to be found on-site is considered unlikely.

1.2.3 Lead-Based Paints

Based upon the year the existing structures present on-site were built (prior to 1978), the potential for lead-based paints (LBPs) to be found on-site is considered likely.

1.2.4 Lead In Soil

The subject site adjoins State Route 101 (SR-101) to the north. Specifically, the subject site is within approximately ten (10) feet from the edge of pavement of SR-101. Due to the age of SR-101 and volumes of vehicles which have utilized this facility, there is the potential that lead contamination exists within exposed soils on the northern boundary of the subject site, which could potentially be released into the air during future earthwork activities.

1.2.5 Adjacent Properties

The presence of hazardous materials on the subject site that may have been generated from adjacent properties was not visible during the July 23, 2002 site inspection. However, based on the *EDR Database Report*, seven (7) adjoining properties (located within ¼-mile north of the subject site) have reported subsurface releases and have not yet been issued a closure status from the appropriate lead agency (County of Ventura, EHD). RBF conducted a file review at the County of Ventura, Environmental Health Division on July 23, 2002 to verify the extent of contamination from the seven (7) properties mentioned above. Upon completion of the file review, it was found that contamination within the boundaries of the subject site due one or more of adjoining properties is considered to be low due to the groundwater flow direction; the distance and direction from the subject site; and/or the status of the identified site. Refer to Section 3.2.1.9, *File Review*, for a detailed discussion.

1.2.6 Public Records

Available public records were reviewed. The lists which were reviewed identified no regulatory sites reported within the boundaries of the subject site. The lists identified thirty-one (31) listed regulatory sites located within a one-mile radius of the subject site. A ***"recognized environmental condition"*** (REC) on the subject site caused by one or more of these sites is considered to be low due to the groundwater flow direction; the distance and direction from the subject site; and/or the status of the identified site. Refer to Section 3.0, *Historical and Regulatory Information Searches*, for a detailed discussion.

It should also be noted that the EDR Database Report indicated that oil, gas, and water wells are located within the boundaries of the subject site. According to interviews with Sakioka Farms Staff (Mr. Craig Kaihara), six (6) abandoned and capped wells are located on-site (refer to Section 3.0).

1.2.7 Historic Recognized Environmental Condition

A ***"historic recognized environmental condition"*** (HREC) is defined as a condition which in the past would have been considered a REC, but which may or may not be considered a REC currently. HRECs are generally conditions which have in the past been remediated to the satisfaction of the responsible regulatory agency. Based on this definition, no HRECs were identified within the boundaries of the subject site.

1.2.8 Historical Use(s) Information

Review of available environmental documentation and interviews indicate that past on-site activities have created the potential for environmental conditions to be present within the boundary of the subject site which include the following:

- Based upon the site inspection, review of available historical aerial photographs, and interviews, portions of the subject site were historically used for agricultural purposes and portions of the site are have been utilized as a nursery for several years. Therefore, a combination of several commonly used pesticides (i.e., DDD, DDT, DDE), which are now banned may have been used throughout the subject site. It should be noted that the historical use of agricultural pesticides may have resulted in pesticide residues of certain persistent in soil at concentrations that are considered to be hazardous according to established Federal regulatory levels. The primary concern with historical pesticide residues is human health risk from inadvertent ingestion of contaminated soil, particularly by children. The presence of moderately elevated pesticide residuals in soil present potential health and marketplace concerns.
- The subject site adjoins SR-101 to the north. Specifically, the subject site is within approximately ten (10) feet from the edge of pavement of SR-101. Due to the age of SR-101 and volumes of vehicles which have utilized this facility, there is the potential that lead contamination exists within exposed soils on the northern boundary of the subject site, which could potentially be released into the air during construction activities.

1.2.9 Opinions/Recommendations

Based on the records and other data reviewed during the preparation of this Phase I Environmental Site Assessment, in accordance with ASTM Standard Practice E 1527-00 and the scope-of-services, and subject to the limitations thereof, the following measures are recommended:

- All miscellaneous vehicles, maintenance equipment and materials (i.e., fertilizer, lubricants, grease), construction/irrigation materials, dumpsters, miscellaneous stockpiled debris, pesticide application equipment, aboveground storage tanks, 55-gallon drums, and 5-gallon buckets should be removed off-site and properly disposed of. Once removed, a visual inspection of the areas beneath the removed materials should be performed. Any stained soils observed underneath the removed materials should be sampled. Results of the sampling (if necessary) would indicate the level of remediation efforts that may be required.

- Due to visible evidence of dark surface soil staining of oil/petroleum products located within **Area 5** (immediately north of the maintenance yard fence) soil should be excavated to determine the exact vertical extent of the contamination. If during soil removal, straining (evidence of petroleum products) appears to continue below the ground surface, sampling should be performed characterize the extent of contamination and identify appropriate remedial measures.

- The majority of the subject site has been utilized for agricultural purposes, for several decades and may contain pesticide residues in the soil. Soil sampling should occur throughout the subject site, including the pesticide mixing areas (within **Areas 1** and **3**). The sampling will determine if pesticide concentrations exceed established regulatory requirements and will identify proper handling procedures that may be required.

- Areas of exposed soils five (5) feet from the Caltrans Right-of-Way, which will be disturbed during any excavation/grading activities, should be sampled and tested for lead.

- The storage and debris piles (irrigation piping, old vehicle parts, pallets, tires, 55-gallon drums) identified within **Areas 1**, **2**, and **3** should be removed from the property and properly disposed of. Once removed, a visual inspection of the areas beneath the removed materials should be performed. Any stained soils observed underneath the removed materials should be sampled. Results of the sampling (if necessary) would indicate the level of remediation efforts that may be required.

- Six (6) oil/gas wells are located within the boundaries of the subject site. Padre & Associates is currently in the process of conducting investigations with respect to the former wells, specifically regarding residual soil contaminants (i.e., hydrocarbons) associated with the historical operation of oil/gas extraction wells. Once completed, Padre & associates' findings should be reviewed and appropriate remedial recommendations (if any) should be administered. In addition to recommendations provided by Padre & Associates, it is recommended that the California Department of Oil, Gas, and Geothermal Resources (DOGGR) well abandonment procedures be followed and formal verification of "closure" be received from DOGGR.

- A visual inspection of the interior of all storage structures is recommended. In the event that hazardous materials are encountered it should be properly tested and then properly disposed of pursuant to State and Federal regulations.

- Based upon the year the existing structures located on the subject site were built (prior to 1978), lead-based paint may be present within the existing on-site structures and would need to be handled properly prior to remodeling or demolition activities.

- Since the subject site is in a zone with a high potential for radon levels greater than 4.0 Picocuries per liter (pCi/L), it is recommended that the client employ radon resistant features/materials in any new construction if required by the City or County.

- If unknown wastes or suspect materials are discovered during construction by the contractor which he/she believes may involve hazardous waste/materials, the contract shall:

  - Immediately stop work in the vicinity of the suspected contaminant, removing workers and the public from the area;
  - Notify the Project Engineer of the implementing Agency;
  - Secure the area a directed by the Project Engineer; and
  - Notify the implementing agency's Hazardous Waste/Materials Coordinator

1.3 Scope of Services and Methodology Used

The scope of this Phase I Environmental Site Assessment (ESA) follows guidance provided in American Society for Testing Materials (ASTM) Standard Practice E 1527-00. The ASTM 1527-00 document outlines a procedure for completing ESAs that includes a review of records, site reconnaissance, and interviews where possible. The ASTM document recommends the following regulatory database search distances from a property:

- National Priorities List (NPL)-1.0 mile
- RCRA Corrective Action Report (CORRACTS)-1.0 mile
- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS/NFRAP)-0.5 mile
- RCRA Permitted Treatment, Storage, Disposal Facilities (RCRA-TSD)-0.5 mile
- RCRA Registered Small or Large Generators of Hazardous Waste (GNRTR)-0.125 mile
- State CERCLIS (SCL)-0.5 mile
- State Equivalent Priority List (SPL)-1.0 mile
- Toxic Release Inventory Database (TRIS)-0.25 mile
- Leaking Underground Storage Tanks (LUST)-0.5 mile
- Solid Waste Landfill List (SWLF)-0.25 mile
- RCRA Violations/Enforcement Actions (RCRA Viol)-0.25 mile
- Registered Underground or Aboveground Storage Tank Database (UST/AST)-0.25 mile
- ERNS and State Lists (SPILLS)-0.125 mile

The objectives of the Phase I Environmental Site Assessment contained herein are as follows:

- Evaluate the potential for hazardous materials on the subject site based upon readily discernible and/or documented present and historic uses of the property and uses immediately adjacent to the site; and

- Generally characterize the expected nature of hazardous materials that may be present as a result of such uses, within the limits imposed by the scope of this Assessment.

This Assessment is not intended to provide specific qualitative or quantitative information as to the actual presence of hazardous materials at the site, merely to identify the potential presence based on available information. To achieve the objectives of this Assessment, RBF conducted a Phase I Environmental Site Assessment of the subject site to provide preliminary conclusions relative to site conditions.

The assessment included the following components, which are designed to aid in the discovery and evaluation of recognized environmental conditions:

- RBF performed a site visit on July 23, 2002 consisting of a visual examination of the subject site for visual evidence of potential environmental concerns including existing or potential soil and groundwater contamination, as evidenced by soil or pavement staining or discoloration, stressed vegetation, indications of waste dumping or burial, pit, ponds, or lagoons; containers of hazardous substances or petroleum produces; electrical and hydraulic equipment that may contain polychlorinated biphenyls (PCBs), such as electrical transformers and hydraulic hoists; and underground and above ground storage tanks. RBF observed the physical characteristics of the property (i.e., apparent runoff directions, location of paved areas, etc.). It should be noted that the site visit specifically excluded any subsurface investigation including, but not limited to, sampling and/or laboratory analysis.

- An investigation of historical use of the subject site by examining locally available aerial photographs (one source) and other readily available historical information, for evidence of potential environmental concerns associate with prior land use.

- A review of information available on general geology and topography of the subject property and local groundwater conditions.

- A review of environmental records available from the property owner or site contact including regulatory agency reports, permits, registrations, and consultant's reports for evidence of potential environmental concerns.

- A site property line visual assessment of adjacent properties for evidence of potential off-site environmental concerns that may affect the subject property.

- A review of a commercial database summary (provided by Environmental Data Resources, Inc.), of federal, state and local regulatory agency records pertinent to the subject property and off site facilities located within ASTM-specified search distances for the subject property.

- RBF compiled the data reviewed, discussed findings, formulated conclusions, opinions and recommendations, and prepared this written report presenting the findings of the Phase I Environmental Site Assessment.

The performance of the Phase I ESA was not limited by any extraordinary conditions or circumstances.

1.4 Limiting Conditions of Assessment

The findings and professional opinions of RBF are based on the information made available to RBF (listed in Section 6.0, *References*) from public records, and should be understood to be preliminary only.

RBF makes no warranties either expressed or implied, concerning the completeness of the data made available to us for this study and withholds certification of any type concerning the presence or absence of contamination of the subject site. RBF is not responsible for the quality or content of information from these sources. The report states our conclusion based on the limitations of our Scope-of-Services, in accordance with generally accepted standards for a Phase I Environmental Site Assessment.

Subsurface exploration, geologic mapping, laboratory testing of soil or water samples, lead and asbestos sampling, and operations/inventory review of adjacent uses were not performed in connection with this Assessment. This Assessment represents our professional judgement, based on the level of effort described above, as to the present potential for hazardous materials at the site.

Subsurface exploration, sampling and laboratory testing should be performed if it is deemed necessary or required to quantify the actual absence or presence of hazardous materials and recommend possible remediation measures for such hazardous materials (a "Phase II" investigation).

This Assessment addressed the likelihood of the presence of hazardous substances and/or petroleum products resulting from past and current known uses of the property and nearby properties. Certain conditions, such as those listed below, may not be revealed:

- Naturally occurring toxins in the subsurface soils (i.e., radon), rocks, or water, or toxicity of the on-site flora;
- Toxicity of substances common in current habitable environments, such as stored household products, building materials, and consumables;
- Biological pathogens;
- Subsurface contaminant plume from a remote source;
- Contaminants or contaminant concentrations that do not violate present regulatory standards but may violate such future standards; and
- Unknown site contamination, such as "midnight dumping" and/or accidental spillage which could have occurred after RBF's site visit.

The information and opinions rendered in this Assessment are exclusively for use by Sakioka Farms. RBF will not distribute or publish this report without the consent of Sakioka Farms-except as required by law or court order. The information and opinions expressed in this Assessments are given in response to RBF's Scope-of-Services and Limitations indicated above and should be considered and implemented only in light of the Scope-of-Services and Limitations. The services provided by RBF in completing this Assessment were consistent with normal standards of the profession. No warranty, expressed or implied, is made.

2.0

PHYSICAL SETTING

Physical setting sources typically provide information regarding geologic, hydrogeologic, hydrologic, or topographic characteristics of a property. The following information is primarily based on review of the United States Geological Survey (USGS) Oxnard and Camarillo, California Quadrangles, dated 1967, review of the Soil Survey of Ventura Area, California, dated 1970, review of the City of Oxnard 2020 General Plan, dated 1990, and a site inspection conducted by RBF on July 23, 2002. *Other miscellaneous resources utilized within this section and throughout the Assessment are referenced in Section 6.0, REFERENCES.*

2.1 SUBJECT SITE DESCRIPTION

2.1.1 Location

The approximate 427-acre Sakioka Farms property is located east of Rice Avenue and south of State Route 101 (SR-101), within the City of Oxnard, County of Ventura, State of California (T.2N, R.21W, Sec. N/A SBBM) (refer to Exhibit 1, *Regional Vicinity* and Exhibit 2, *Site Vicinity*).

2.1.2 Current Use(s) of the Subject Site

The subject site is comprised of four (4) rectangular shaped, partially developed parcels, which are described as Assessor's Parcel Numbers (APNs) 216-0-030-065 (202.83-acres), 216-0-030-075 (26.44-acres), 216-0-030-085 (172.17-acres), and 216-0-030-105 (25.76-acres). Collectively, the parcels comprise a gross area of approximately 427-acres and presently consist of bare soil, row crops, agricultural drainages, and maintenance yards (refer to Exhibit 3A, *Subject Site-Parcel Map*). One (1) of the four (4) parcels (APN 216-0-030-065) has a street address described as 2190 Rice Avenue. On-site access is provided via an unimproved dirt road immediately west of the Rice Avenue/Gonzales Road intersection.

2.1.3 Description of On-Site Structures and Roads

No residential units are located within the boundaries of the subject site; however, a total of fifteen (15) structures (garages, sheds, and trailers) are present on the subject site and are discussed in detail below:

Area 1 consists of five (5) structures which are utilized for the following: three (3) of the structures are utilized as equipment storage sheds for on-site agricultural practices. Two (2) of the sheds are of wood-sided construction with sheet metal roofs. The third shed is constructed solely of sheet metal. All three (3) of the equipment storage sheds were locked and appeared to have concrete floors/foundations. Access to the interior of the storage sheds was restricted at the time of the July 23, 2002 site inspection. However, according to interviews conducted during the site investigations, the sheds house tractor and non-hazardous material farm equipment (primarily parts storage). The remaining two (2) structures are utilized as maintenance garages. Both of the structures are of wood-frame construction with sheet metal roofs. The larger garage structure (located within the eastern portion of the **Area**) had a concrete foundation; however, the smaller garage structure (which resembled a car-port) appeared to be constructed on bare soil. The garages primarily contained parts, boxes for harvests, and miscellaneous debris during the July 23, 2002 site inspection.

In addition to the permanent on-site structures, two (2) mobile structures were present on-site during the July 23, 2002 site inspection. One (1) of the mobile units is utilized as the ranch office, which consists of a mobile trailer with air conditioning and carpet flooring. No evidence of agricultural products (hazardous materials or farm equipment) was noted within the on-site office trailer. The other mobile unit appeared to be a metal truck trailer, which housed fertilizers and various hazardous materials. The truck trailer was locked, elevated over a concrete foundation, and appeared to have hazardous material signage posted on the rear sectional-sliding door.

Area 3 consists of eight (8) structures which are utilized as storage garages and sheds. Two (2) of the 8 structures are utilized as garages and are of wood frame construction with sheet metal roofs. One (1) of the structures (the lager garage to the south) has a concrete foundation and currently houses irrigation piping supplies. The second structure appeared to be on bare soil and resembled a car port/parking garage. Two (2) automobiles were parked within the garage during the July 23, 2002 site inspection. Approximately five (5) equipment storage sheds/trailers were noted within **Area 3** during the July 23, 2002 site inspection. The storage sheds/trailers appeared to be maintenance/parts sheds; however, access to the on-site sheds was restricted during the July 23, 2002 site inspection. One (1) of the sheds/trailers appeared to have hazardous materials signage and was locked during the site inspection. Interviews with on-site field workers confirmed that the storage shed housed hazardous materials such as fertilizers and pesticides.

Unimproved dirt roads primarily delineate the boundaries of the subject site. The dirt roads (used for agricultural practices) are located on the northern, eastern, southern, and western boundaries. One (1) unimproved dirt road traverses the central portion of the subject site. The roads appeared to be properly maintained and generally consisted of compacted soil. Surficial staining was noted along various portions of the roads; however, the staining appeared minor in nature and typical of most road uses. As previously mentioned, on-site is provided via an unimproved dirt road immediately west of the Rice Avenue/Gonzales Road intersection.

2.1.4 Zoning/Land Use Records

Zoning/land use records generally consists of records of the local government in which the subject site is located and indicates the use permitted by the local government in particular zones within its jurisdiction. The records may consist of maps and/or written records. The subject site currently consists of agricultural land uses. However, according to the City of Oxnard 2020 General Plan, dated November 1990, the subject site is zoned as Light Industrial and Business and Research Park.

2.2 TOPOGRAPHY

The United States Geological Survey (USGS) maps show geological formations and their characteristics, describing the physical setting of an area through contour lines and major surface features including lakes, rivers, streams, buildings, landmarks, and other factors that impact the spread of contamination. Additionally, the maps depict topography through color and contour lines and are helpful in determining elevations and site latitude and longitude. Based on the USGS Oxnard and Camarillo, California Quadrangles, photorevised in 1967, on-site topography is approximately 70 feet above mean sea level (msl) and gently slopes to the southeast. Four (4) structures are labeled within the boundaries of the subject site. Based upon reviewed documentation, interviews, and the site inspection, these structures appear to be on-site garages and sheds utilized for agricultural equipment storage. No pits, ponds, or lagoons were noted on this topographical map.

2.3 Current Uses of Adjoining Properties

For the Scope of this Assessment, properties are defined and categorized based upon their physical proximity to the subject site. An adjoining property is considered any real property or properties the border of which is contiguous or partially contiguous with that of the subject site, or that would be contiguous or partially contiguous with that of the subject site but for a street, road, or other public thoroughfare separating them. An adjacent property is any real property located within 0.25 miles of the subject site's border. The following is a detailed description of each adjoining land use observed on July 23, 2002.

North: State Route 101 (SR-101), Ventura Boulevard, and mixed uses (commercial, residential, and light industrial) are located to the north of the subject site.

East: Del Norte Road, agricultural uses, and commercial uses are located to the east of the subject site. The Oxnard Air force Base/Camarillo Airport is located approximately one-mile to the east of the subject site.

South: Industrial uses and vacant lots are located to the south of the subject site.

West: Rice Avenue, commercial uses, and light industrial uses are located to the west of the subject site.

2.4 Geologic Conditions

2.4.1 Geology

The United States Geological Survey (USGS) Geological Map Index was searched by Environmental Data Resources, Inc. for available Geological Maps which cover the subject site and surrounding areas. These Geological Maps indicate geological formations which are overlaid on a topographic map. Some maps focus on specific issues (i.e., bedrock, sedimentary rocks, etc.) while others may identify artificial fills (including landfills). Geological maps can be effective in estimating permeability and other factors that influence the spread of contamination. According to the Environmental Date Resources (EDR) Geocheck database search, dated July 3, 2002, the subject site is underlain by loams, which have a permeability rate of 0.60 to 6.00 inches per hour (in/hr). This soil hydrologic group has slow infiltration rates, sandy soils with layers impeding the downward movement of water, or soils with moderately fine or fine textures. Generally, the soils may have a high saturated zone, a layer of low hydraulic conductivity, or seepage. Depth to water table is reported less than one (1) foot below ground surface (bgs). Depth to bedrock is generally less than 60 inches.

2.4.2 Soils

The subject site is situated on the Camarillo-Hueneme-Pacheco association. This association is level to nearly level, and consists of very deep, poorly drained loamy sands to silty clay loams. Six (6) soil series are present on the subject site and are briefly described below:

Camarillo sandy loam (Cc): This soil series is level to nearly level soil of the alluvial plains; it is of the primarily soil series of the association. It is underlain by grayish-brown and pale-brown, mottled, calcareous loam and fine sandy clay loam about 20 inches thick. Periodically this soil contains soluble salts. Unless adequately protected, this series is subject to infrequent flooding. Permeability is moderate. Surface runoff is very slow to ponded and there is no erosion hazard. This soil is primarily used for vegetables, lemons, and other shallow-rooted crops. Urban land uses are increasing.

Camarillo loam (Cd): This soil series is level to nearly level soil of the alluvial plains. This soil series differs from Cc, above, mainly in texture of the surface layer and in having a fairly uniform loam texture throughout the profile. Unless adequately protected, this series is subject to infrequent flooding. Permeability is moderate. Surface runoff is very slow to ponded and there is no erosion hazard. This soil is primarily used for vegetables, lemons, other shallow-rooted crops, and for urban development.

Camarillo loam, sandy substratum (Ce): This soil series is level to nearly level soil of the alluvial plains. In contrast to Cc, this soil series is loam to a depth of about 40 to 48 inches and is underlain by sand. Unless adequately protected, this series is subject to infrequent flooding. Permeability is moderate. Surface runoff is very slow to ponded and there is no erosion hazard. This soil is primarily used for vegetables and lemons and for urban development.

Hueneme loamy sand, loamy substratum (Hm): This soil series is a nearly level soil of the alluvial plains and basins. It mainly has a surface layer of loamy sand and is underlain by stratified sandy loam, loam, silt loam, and silt below a depth of 40 inches. Permeability is moderate. This soil is used for vegetables, lemons, and strawberries, for field crops, and for urban development.

Hueneme sandy loam (Hn): This soil series is a nearly level soil of the alluvial plains and basins. The surface layer is grayish-brown, calcareous, loamy fine sand and light sandy loam about 17 inches thick. Periodically this soil contains soluble salts. Unless adequately protected, this series is subject to infrequent flooding. Permeability is moderately rapid. Surface runoff is very slow, and there is no erosion hazard. This soil is used for vegetables, lemons, and strawberries, for field crops, and for urban development.

Pacheco silty clay loam (Pa): This is a nearly level soil series of the basins and alluvial plains. The surface layer is dark-gray, mildly alkaline to strongly alkaline silty clay loam about 27 inches thick. Unless adequately protected, this series is subject to infrequent flooding. Permeability is moderately slow. Surface runoff is very slow, and there is no erosion hazard. This soil is used for vegetables, lemons, and strawberries, for field crops, and for urban development.

2.4.3 Radon

Radon is a radioactive gas that is found in certain geologic environments and is formed by the natural breakdown of radium, which is found in the earth's crust. Radon is an invisible, odorless, inert gas which emits alpha particles, known to cause lung cancer. Radon levels are highest in basements (areas in close proximity to the soil) that are poorly ventilated. It should be noted that a radon survey was not included within the scope of this investigation. However, according to the "*U.S. EPA Map of Radon Zones*," the County of Ventura is located within Zone 1 which has a predicted average indoor screening level of > 4.0 Picocuries per liter (pCi/L). EPA recommends remedial actions when radon levels are greater than 4.0 pCi/L (refer to Appendix B, *Documentation*).

2.5 BIOLOGICAL SETTING

The extent of the natural biotic community that exists within the vicinity of the subject site is limited due to current agricultural issues. The eastern portion of the subject site consisted of row crops (broad leaf plants and peppers) during the July 23, 2002 site inspection. The western portions of the subject site consisted of bare soil. According to on-site interviews, the subject site primarily harvests strawberries. The northern boundary of the subject site consists of non-native eucalyptus trees.

2.6 DRAINAGE/HYDROLOGY

2.6.1 Drainage

Drainage of the site is accomplished by downward surface percolation and overland sheet flow, which is generally in a southeastern direction across the subject site towards the Pacific Ocean. It should be noted that several agricultural drainages (used for irrigation) are located within the boundaries of the subject site. Primarily, the drainages are located on the eastern and southern boundaries of the subject site; one (1) central drainage (immediately north of **Area 5**) runs in an east/west direction and eventually discharges water flow to the east.

2.6.2 Flood Hazards

Flood Prone Area Maps published by the USGS show areas prone to 100-year floods overlaid on a topographical map. These maps are not considered the official Federal Emergency Management Agency (FEMA) flood maps; therefore, in cases where a property is located immediately adjacent to or within the flood prone boundary, a FEMA map should be obtained. If the Flood Prone Area Map indicates that the flood boundary is not nearby, a FEMA map can be provided. According to the EDR report, dated July 3, 2002 the northeastern portion of the subject site is located within a 100-year flood zone. Additionally, RBF reviewed a FEMA Flood Insurance Rate Map (FIRM) (Map Panel 060417 0010 C) for the City of Oxnard, California. According to the FIRM, the northeastern portion of the subject site (and adjoining land to the east) is located in Flood Zone B. Flood Zone B is designated to consist of areas that are within 100-year and 500-year floods, or certain areas subject to 100-year flooding with average depths less than one (1) foot. Refer to the *EDR Overview Map* within Appendix A, for an illustration of the 100-year flood zones. Also, refer to a copy of the FIRM map within Appendix B, *Documentation*.

2.7 GROUNDWATER AND WATER WELLS

No technical groundwater or water well data was readily available for the subject site during the preparation of this Assessment. As a result, RBF assumes groundwater flow would follow the slope of the ground surface elevations towards the nearest open body of water or intermittent stream (the Pacific Ocean). The direction of this flow on-site is expected to be generally in a southeastern direction. According to the EDR database report, five (5) water wells are located approximately ½-mile north of the subject site. Although groundwater flow direction was not reported, the depth to groundwater is reported less than one (1) foot bgs.

Based on relevant information researched during the file review at the County of Ventura, Environmental Health Division, it was noted that the subject site is located within the Oxnard Pressure Basin, an area of known high total dissolved solids (TDS) and nitrates in the groundwater. It was also noted that this area (the semi-perched aquifer) is not considered a beneficial water source.

3.0

HISTORICAL AND REGULATORY INFORMATION SEARCHES

The ASTM Phase I Standard (E1527-00) allows discretion in choosing from among eight standard sources, plus "other" non-specific sources (other non-specific sources can include newspaper archives and records in the files and/or personal knowledge of the property owner and/or occupants). The standard sources are fire insurance maps, historical topographic maps, street directories, aerial photographs, property tax files, building department records, planning department records, and a chain-of-title. The focus is on usage rather than ownership, which is why a chain-of-title is not required and not sufficient by itself.

*Historical subject site use information was obtained from **1938** to the present. Per ASTM, historical uses "shall be identified from the present, back to the **property's obvious** first development use [including agricultural and fill activities], or back to 1940, which ever is **earlier**."*

3.1 HISTORICAL SITE USAGE

The following historical information is based upon review of available historical maps and documents, available public information, interviews, and a review of a series of historical aerial photographs dating from 1938 through 1994.

3.1.1 Interviews

3.1.1.1 City of Oxnard Fire Department

RBF interviewed staff with the City of Oxnard Fire Department on July 3, 2002 regarding the subject site in an effort to determine whether the subject site has been under investigation of any hazardous materials regulations. Department files typically contain information regarding spills, on-site hazardous usages/storage, and underground/aboveground storage tanks based on a street address. Department staff conducted a property search via the subject site's address (2190 Rice Road); records were found. Department staff also attempted to search via all four (4) APNs; no additional records were found. RBF set an appointment date (July 23, 2002) in order to review the maintained files. Department staff also referred RBF to the County of Ventura Fire Department, which routinely maintains files by APN. It was also noted that the County maintains files for most farm sites within the City of Oxnard and surrounding communities (refer to Appendix B, *Documentation*).

3.1.1.2 County of Ventura Fire Department

As mentioned above, the County of Ventura Fire Department often maintains files for agricultural sites located within the County's jurisdiction. RBF contacted the County of Ventura Fire Department on July 3, 2002 in an effort to obtain any information within

3.1.1.9 *Current On-Site Fieldworker*

RBF interviewed an on-site fieldworker that was present within **Area 3** during the July 23, 2002 site inspection. According to the on-site worker, no USTs are present within the boundaries of subject site. The fieldworker stated that diesel is contained in on-site ASTs, which he pointed out to RBF. In addition to the ASTs, the on-site worker noted the chemical storage along the eastern boundary of **Area 3** (refer to Appendix B, *Documentation*).

3.1.2.0 *Western Farm Service*

RBF contacted Mr. Tom Nagel, of Western Farm Service, on July 30, 2002 in an effort to discuss the history of the subject site and Mr. Nagel's role on the subject site; RBF was referred to Mr. Nagel by Mr. Craig Kaihara, as indicated in *Section 3.1.1.7*. According to Mr. Nagel, Western Farm Service provides assistance with harvests. Specifically, Mr. Nagel stated that he completes pest control applications within the boundaries of the subject site. It was noted that the subject site generally grows celery, onions, lettuce, and strawberries. Mr. Nagel had no knowledge within regards to USTs; he was not aware of any on-site hazardous material spills/releases (refer to Appendix B, *Documentation*).

3.1.2.1 *Bayview Berry Farms*

RBF contacted Mr. Doug Mita, of Bayview Farms, on July 30, 2002 in an effort to discuss the history of the subject site and Mr. Mita's role on the subject site; RBF was referred to Mr. Mita by Mr. Craig Kaihara, as indicated in *Section 3.1.1.7*. Mr. Mita stated that he is in charge of growing strawberries within the boundaries of the subject site. He stated that the land has recently been disced, as strawberries will be planted in August 2002. To Mr. Mita's knowledge, no USTs are present within the boundaries of the subject site. To Mr. Mita's knowledge, no hazardous material spills/releases have occurred within the boundaries of the subject site (refer to Appendix B, *Documentation*).

3.1.2.2 *Pacifico Berry Farms/Tri Cal Inc.*

RBF contacted Mr. Brian Benchwick, of Pacifico Berry Farms/Tri Cal Inc., on July 30, 2002 in an effort to discuss the history of the subject site and Mr. Benchwick's role on the subject site; RBF was referred to Mr. Benchwick by Mr. Craig Kaihara, as indicated in *Section 3.1.1.7*. According to Mr. Benchwick, Tri Cal Inc. provides assistance with harvests. Specifically, Mr. Benchwick stated that he recommends which pesticides are to be used for each crop; Mr. Benchwick has walked the subject site for the past three (3) seasons. Mr. Benchwick had no knowledge within regards to USTs; he was not aware of any on-site hazardous material spills/releases, especially within the past 3 years (refer to Appendix B, *Documentation*).

3.2.1 Documentation

3.2.1.1 *Recorded Land Title Records*

Recorded land titles are records usually maintained by the municipal clerk or county recorder of deeds which detail ownership fees, leases, land contracts, easements, liens, deficiencies, and other encumbrances attached to or recorded against the subject site within the local jurisdiction having control for or reporting responsibility to the review of the available historical topographic maps. Review of available historical topographic maps provided the following chronological sequence of site history. Copies of the historical topographic maps as well as the most recent topographic map are presented in Appendix B, *Documentation*.

1904: In the 1904 USGS Hueneme, California, Quadrangle, on-site topography appears to be level. It should be noted that the 1904 quadrangles is a 15 minute series topographic map. These maps typically label major peaks, railroads, lakes, and rivers; however, often times they lack detail as far as specific elevations, roadways, and detailed land uses. On-site land uses appear to consist of agricultural uses. Approximately four (4) structures are plotted within the boundaries of the subject site. The structures appear to be small in size. Approximately three (3) unimproved roads traverse the subject site. Surrounding off-site land uses appear to consist of agricultural land uses, open space, vacant land, and limited development. A major roadway is present to the north of the subject site (appears to be State Route 101); however, the roadway remains unlabeled on the 1904 topographic map. Del Norte Road adjoins the subject site to the east; Rice Avenue adjoins the subject site to the west. The cities of Oxnard and Hueneme are located to the southwest. The Southern Pacific Railroad (SPRR) is labeled to the south and west of the subject site. A canal is labeled to the northwest of the subject site; the Pacific Ocean is noted to the south. No pits, ponds, or lagoons were noted on the 1904 topographic map.

1957: In the 1957 USGS Oxnard, California, Quadrangle (7.5 Minute Series Map), on-site topography is approximately 70 feet above mean sea level (msl) and gently slopes to the southeast. On-site land uses (agricultural) appear similar to 1904 topographic map. Approximately eleven (11) structures are now plotted within the boundaries of the subject site. The structures appear to be small in size and are assumed to be residential units and/or associated farm structures (barns, etc.). It should be noted that the eastern border of the subject site was not included on 1957 topographic map. Surrounding off-site uses (agricultural) appear similar to those viewed in the 1904 topographic map. However, increased development has occurred to the northeast and north west of the subject site. The development appears to consist of residential uses. Ventura Boulevard now adjoins the subject site to the north. One (1) water well adjoins the subject site to the southwest. Development continues in the cities of El Rio, Nyeland, and Oxnard. No pits, ponds, or lagoons were noted on the 1957 topographic map.

1967: In the 1967 USGS Oxnard, California, Quadrangle (7.5 Minute Series Map), on-site topography and land uses are similar to those viewed in the 1957 USGS topographic map. Approximately four (4) structures are now plotted within the boundaries of the subject site. The four structures appear similar tot hose viewed in the 1957 topographic map. It should be noted that the eastern border of the subject site was not included on 1957 topographic map. Two (2) wells appear to be located within the southwestern boundaries of the subject site. Surrounding off-site uses (agricultural) appear similar to those viewed in the 1957 topographic map. Development continues to the northeast, southwest, and northwest (via photo revisions). The development appears to primarily consist of residential uses and limited industrial/commercial uses (located to the southwest). No pits, ponds, or lagoons were noted on the 1967 topographic map.

Based on review of the above referenced historical topographic maps, the subject site appears to have consisted of agricultural uses and limited residential uses. A total of eleven (11) on-site structures were noted; however, due to the limited detail of the historical topographic maps (limited detail within the regards to on-site structural uses and design), exact structural usage remains undefined. Refer to Section, 3.1.3. *Aerial Photographs*, for a complete description of the on-site structures.

No evidence to support the existence of a recognized environmental condition on-site was visible during the review of available historical topographic maps.

3.2.1.6 Historical County Planning Maps

Beginning in the 1930's, historical county planning maps were used by highway departments to disburse federal funding based on each county's road system. Some states just mapped roads, but many added cultural features such as farms and factories. These features were usually shown everywhere except within city limits. These maps are especially useful in conjunction with historical topographic maps. The topographical map can indicate the size, shape, and location of structures, while the historical county planning map can identify their use. This Assessment has relied upon other standard historical information sources assumed to be either more accurate or informative than historical county planning maps.

3.2.1.7 California Department of Oil, Gas, and Geothermal Resources

RBF reviewed a Wildcat Map provided by the California Department of Oil, Gas, and Geothermal Resources (DOGGR). These maps indicate existing and historical oil and gas wells within the immediate vicinity of the subject site. Current well status for any well indicated on the Wildcat Maps should be confirmed at the appropriate Division of Oil and Gas District Office. According to the Wildcat Map W2-1, dated April 24, 1999, the subject site appears to be located in a sedimentary basin with oil, gas, or geothermal production. The Oxnard Wildcat Map that details the sedimentary basin was unavailable at the time of this Assessment; therefore no further review could be conducted.

As previously mentioned, an interview with Mr. Kaihara, a Sakioka Farms Representative, indicated that six (6) former oil/gas wells are located within the boundaries of the subject site. To Mr. Kaihara's knowledge, all six (6) wells have been closed, abandoned, and capped. At the time of this Assessment, five (5) of the on-site gas/oil wells have been located and investigated. Once agricultural activities have ceased, the sixth well will be surveyed, located, and investigated. Padre & Associates is providing site investigation documentation regarding the six (6) on-site wells (refer to Appendix B, *Documentation*).

In addition to interviews, the EDR Database Report indicated that oil, gas, and water wells are on-site. According to the report, the wells are plugged and abandoned (dry hole), and operated by San Roque Oiland Exploration. No additional information was reported (refer to Appendix A, *EDR Database Search*).

3.2.1.8 California Department of Water Resources (DWR)

RBF Contacted Ms. Ann Roth, with the California Department of Water Resources (DWR) on July 3, 2002 in an effort to obtain water well information. The DWR maintains water well files (via Well Completion Reports) for the State of California, Upon review of the property file for 3601 Nyeland Avenue, it was also noted that both the property and subject site are located within the Oxnard Pressure Basin, an area of known high total dissolved solids (TDS) and nitrates in the groundwater. It was also noted that this area (the semi-perched aquifer) is not considered a beneficial water source.

- **700 Maulhardt Avenue (Con-Way Transportation Services/Rosenmund):** Based upon a letter dated September 22, 1998, this property has completed site investigation and remedial action within regards to the on-site LUST. No further action is required.

3.1.3 Aerial Photographs

RBF reviewed available historical aerial photographs for the subject site and immediately adjacent areas to assist in the identification of development activities that have historically occurred on-site. Review of available historical aerial photographs dated 1938 through 1994 provided the following chronological sequence of site history. The aerial photographs were provided by Environmental Data Resources, Inc., and are listed in Section 6.0, *References.* Copies of these historical aerial photographs are presented in Appendix B, *Documentation.*

1938: In the 1938 aerial photograph, on-site land uses appear to consist of agricultural uses (orchards and row crops). Approximately ten (10) structures are visible on the subject site, primarily located on the northern and southern portions of the subject site. Unimproved dirt roads are visible and traverse the subject site in multiple areas. Surrounding off-site uses consist solely of agricultural uses. Development (limited residential structures) are located to the north of the subject site. In addition, Ventura Boulevard appears present to the north.

1945: In the 1945 aerial photograph, on-site land uses appear similar to those viewed in the 1938 aerial photograph. It should be noted that due to the scale of the 1945 aerial photograph (1'=400'), only the eastern portion of the subject site is visible. The eastern portion of the subject site appears to consist of row crops, which appear to extend in a north/south direction. Surrounding off-site land to the north appears to be under development (residential uses).

1959-
1966: In the 1959 through 1966 aerial photographs, on-site land uses appear similar to those viewed in the 1938 through 1945 aerial photographs. Approximately seven (7) to ten (10) structures are now visible within the boundaries of the subject site. One of the structures is large in size and may be associated with on-site agricultural uses; the remaining structures appear to consist of residential units and or storage areas (i.e., sheds, garages, etc.). Approximately seven (7) small developed areas are visible throughout the subject site; however, exact uses remain undefined, although they are assumed to be agriculturally related. Surrounding uses continue to be developed to the north; agricultural land uses bound the subject site to the east, south, and west. State Route 101 (SR-101) is now present and adjoins the subject site to the north.

1977: In the 1977 aerial photograph, on-site land uses appear similar to those viewed in the 1966 aerial photograph. It should be noted that in each of the historical aerial photographs, although land uses appear similar (agricultural), the subject site's organization is dynamic. Row crops and on-site unimproved roads are

Property Details

Vacant Land or N/A

Property Last Updated: 5/9/2002 10:06:06 AM
County Last Updated: 6/30/2002 4:23:04 PM

Ownership Information

Parcel No:	216-0-030-075
Owner(s):	SAKIOKA FARMS
Phone:	(714) 545-8611
Site Address:	Vacant Land or N/A
Mail Address:	14850 SUNFLOWER AVE SANTA ANA, CA 92707-4933

Sales and Loan Information

Recording Date:	N/A	Lender Name:	N/A
Sale Price:	N/A	Title Company:	N/A
Sale Code:	N/A - UNKNOWN	Loan Amt Other:	N/A
Document #:	N/A	Seller:	N/A
Document Type:	UNKNOWN	Prior Sales Price:	N/A
Deed Type:	UNKNOWN	Prior Sales Date:	N/A
Loan Amt 1 St:	N/A	Prior Doc #:	N/A
Loan type:	UNKNOWN	Prior Doc Type:	UNKNOWN

Assessment and Tax Information

Assessed Value:	$512,290	Improved:	1.23%
Land Value:	$505,985	Improved Value:	$6,305
Owner Exempt:	N/A	Tax Year:	2001
Tax Amount:	$65,913	Tax Area:	03-014

Property Description

Use Code:	2012 - INDUSTRIAL (NEC)		
Zoning:	VE MULTIP		
Legal:	REF: 2 RS 43		
Map Grid:	PAGE 523 GRID C4	Old Map-Grid (CA only):	PAGE 70 GRID C1
County:	VE	Municipality:	N/A
Tract:	N/A	Subdivision Name:	N/A
Lot:	N/A	Bathrooms:	N/A
Lot Size:	1,152,000	House Style:	UNKNOWN
Acreage:	26.446	Yr Built / Effective Yr Built:	N/A / N/A
Garage:	UNKNOWN	Pool:	NO

Fireplaces:	NO	Flood Zone ID:	N/A
Census Tract:	003100	Census Block:	2

New Search

Property Details

Vacant Land or N/A

Property Last Updated: 5/9/2002 10:06:06 AM
County Last Updated: 6/30/2002 4:23:04 PM

Ownership Information

Parcel No:	216-0-030-085
Owner(s):	SAKIOKA FARMS
Phone:	(714) 545-8611
Site Address:	Vacant Land or N/A
Mail Address:	14850 SUNFLOWER AVE SANTA ANA, CA 92707-4933

Sales and Loan Information

Recording Date:	N/A	Lender Name:	N/A
Sale Price:	N/A	Title Company:	N/A
Sale Code:	N/A - UNKNOWN	Loan Amt Other:	N/A
Document #:	N/A	Seller:	N/A
Document Type:	UNKNOWN	Prior Sales Price:	N/A
Deed Type:	UNKNOWN	Prior Sales Date:	N/A
Loan Amt 1 St:	N/A	Prior Doc #:	N/A
Loan type:	UNKNOWN	Prior Doc Type:	UNKNOWN

Assessment and Tax Information

Assessed Value:	$3,188,813	Improved:	1.08%
Land Value:	$3,154,457	Improved Value:	$34,356
Owner Exempt:	N/A	Tax Year:	2001
Tax Amount:	$441,502	Tax Area:	03-014

Property Description

Use Code:	2020 - HEAVY INDUSTRIAL		
Zoning:	VE M1PD		
Legal:	REF: 2 RS 43		
Map Grid:	PAGE 523 GRID C4	Old Map-Grid (CA only):	PAGE 70 GRID C1
County:	VE	Municipality:	N/A
Tract:	N/A	Subdivision Name:	N/A
Lot:	N/A	Bathrooms:	N/A
Lot Size:	7,500,128	House Style:	UNKNOWN
Acreage:	172.179	Yr Built / Effective Yr Built:	N/A / N/A
Garage:	UNKNOWN	Pool:	NO

Fireplaces:	**NO**	Flood Zone ID:	**N/A**
Census Tract:	**003100**	Census Block:	**2**

New Search

Property Details

Vacant Land or N/A

Property Last Updated: 5/9/2002 10:06:06 AM
County Last Updated: 6/30/2002 4:23:04 PM

Ownership Information

Parcel No:	216-0-030-105
Owner(s):	SAKIOKA FARMS
Phone:	(714) 545-8611
Site Address:	Vacant Land or N/A
Mail Address:	14850 SUNFLOWER AVE SANTA ANA, CA 92707-4933

Sales and Loan Information

Recording Date:	N/A	Lender Name:	N/A
Sale Price:	N/A	Title Company:	N/A
Sale Code:	N/A - UNKNOWN	Loan Amt Other:	N/A
Document #:	N/A	Seller:	N/A
Document Type:	UNKNOWN	Prior Sales Price:	N/A
Deed Type:	UNKNOWN	Prior Sales Date:	N/A
Loan Amt 1 St:	N/A	Prior Doc #:	N/A
Loan type:	UNKNOWN	Prior Doc Type:	UNKNOWN

Assessment and Tax Information

Assessed Value:	$476,474	Improved:	1.08%
Land Value:	$471,348	Improved Value:	$5,126
Owner Exempt:	N/A	Tax Year:	2001
Tax Amount:	$65,091	Tax Area:	03-014

Property Description

Use Code:	2012 - INDUSTRIAL (NEC)		
Zoning:	VE M1PD		
Legal:	N/A		
Map Grid:	PAGE 523 GRID C4	Old Map-Grid (CA only):	PAGE 70 GRID C1
County:	VE	Municipality:	N/A
Tract:	N/A	Subdivision Name:	N/A
Lot:	N/A	Bathrooms:	N/A
Lot Size:	1,122,240	House Style:	UNKNOWN
Acreage:	25.763	Yr Built / Effective Yr Built:	N/A / N/A
Garage:	UNKNOWN	Pool:	NO

Fireplaces:	**NO**	Flood Zone ID:	**N/A**
Census Tract:	**003100**	Census Block:	**2**

New Search

Property Details

Vacant Land or N/A

Property Last Updated: 5/9/2002 10:06:06 AM
County Last Updated: 6/30/2002 4:23:04 PM

Ownership Information

Parcel No:	216-0-030-065
Owner(s):	SAKIOKA FARMS
Phone:	(714) 545-8611
Site Address:	Vacant Land or N/A
Mail Address:	14850 SUNFLOWER AVE SANTA ANA, CA 92707-4933

Sales and Loan Information

Recording Date:	N/A	Lender Name:	N/A
Sale Price:	N/A	Title Company:	N/A
Sale Code:	N/A - UNKNOWN	Loan Amt Other:	N/A
Document #:	N/A	Seller:	N/A
Document Type:	UNKNOWN	Prior Sales Price:	N/A
Deed Type:	UNKNOWN	Prior Sales Date:	N/A
Loan Amt 1 St:	N/A	Prior Doc #:	N/A
Loan type:	UNKNOWN	Prior Doc Type:	UNKNOWN

Assessment and Tax Information

Assessed Value:	$3,684,124	Improved:	1.26%
Land Value:	$3,637,840	Improved Value:	$46,284
Owner Exempt:	N/A	Tax Year:	2001
Tax Amount:	$505,317	Tax Area:	03-014

Property Description

Use Code:	2012 - INDUSTRIAL (NEC)		
Zoning:	VE MULTIP		
Legal:	REF: 2 RS 43		
Map Grid:	PAGE 523 GRID C4	Old Map-Grid (CA only):	PAGE 70 GRID C1
County:	VE	Municipality:	N/A
Tract:	N/A	Subdivision Name:	N/A
Lot:	N/A	Bathrooms:	N/A
Lot Size:	8,835,615	House Style:	UNKNOWN
Acreage:	202.838	Yr Built / Effective Yr Built:	N/A / N/A
Garage:	UNKNOWN	Pool:	NO

Fireplaces:	NO	Flood Zone ID:	N/A
Census Tract:	003100	Census Block:	2

New Search

PROPERTY INFORMATION

3) Property: , CA

APN: 216-0-030-105
Tax Rate Area: 03-014
Use: INDUSTRIAL (NEC)

Card#:
Property Tax: $65,091.70
Total Value: $476,474

County: VENTURA, CA
Tax Yr: 2001 Delinq:
Land Value: $471,348

Census: 31.00
Exemptions:
Imprv Value: $5,126

Map Pg: 70-C1
Taxable Val: $476,474

New Pg: 523-C4
Assd Yr: 2001

Subdivision:
% Improve: 1%

Owner: SAKIOKA FARMS
Owner Vest: / /

Phone: 714/545-8611

Mail: 14850 SUNFLOWER AVE; SANTA ANA CA 92707-4933 C023

Ownership Transfer = Date: Doc #: Type:

SALE & FINANCE INFORMATION

	LAST SALE		PRIOR SALE
Recording/Sale Date:			
Sale Price/Type:			
Document #:			
Deed Type:			
1st Mtg Loan $/Type:			
1st Mtg Rate/Type/Term:	/	/	
1st Mtg Lender:			
2nd Mtg Loan $/Type:			
2nd Mtg Rate/Type/Term:	/	/	
Title Company:			
Seller:			
New Construction:			

Other Last Sale Info = # Parcels: Type 2: Pend:

SITE INFORMATION

Zoning: M1PD
Sewer Type:
Acres: 25.76

County Use: 2012
Water Type:
Lot Area: 1,122,240

Improve Type:
View Quality:
Lot Width:

Bldg Class:
Site Influence:
Lot Depth:

Flood Panel:
Usable Lot Area:

Flood Zn Dt:

Paved Parkg:
Garage Cap#:
Parking Sqft:
Park Spaces:
Parking Type:

IMPROVEMENT INFORMATION

County: **VENTURA, CA**
APN: **216-0-030-105**

Gross Bldg Area:
Bldg/Living Area:
Ground Flr Area:
Rentable Area:
Basement Area:
$/SF:

Porch Type:
Patio Type:
Patio/Deck 1:
Addition 1:

Bldgs:
Res Units:
Comm Units:
Pass Elevtr:
Bldg Comments:

Total Rooms:
Bedrms:
Baths (Full/Half):
Ttl Baths/Fixt:
Yr Built/Eff:
Stories:
Fireplace/#:
Pool:
Condition:
Style:
Quality:
Amenities:
Other Rooms:

Construction:
Foundation:
Ext Wall:
Frame:
Roof Type:
Roof Matl:
Roof Shape:
Heat Fuel:
Heat Type:
Floor Type:
Floor Cover:
Air Cond:
Electric:
Utilities:
Sprinklers:
Equipment:

Other Imprvs:

LEGAL INFORMATION

Legal Plat BkPg:
Legal Blk/Bldg:
Legal Lot/Unit:
Legal Desc:

Legal Truncated:

PROPERTY INFORMATION

4)	Property: , CA				
APN:	**216-0-030-075**	Tax Rate Area:	**03-014**	Use:	**INDUSTRIAL (NEC)**
Card#:		Property Tax:	**$65,913.64**	Total Value:	**$512,290**
County:	**VENTURA, CA**	Tax Yr: **2001**	Delinq:	Land Value:	**$505,985**
Census:	**31.00**	Exemptions:		Imprv Value:	**$6,305**
Map Pg:	**70-C1**			Taxable Val:	**$512,290**
New Pg:	**523-C4**			Assd Yr:	**2001**
Subdivision:				% Improve:	**1%**
Owner:	**SAKIOKA FARMS**			Owner Vest:	/ /
				Phone:	**714/545-8611**
Mail:	**14850 SUNFLOWER AVE; SANTA ANA CA 92707-4933 C023**				

Ownership Transfer = Date: Doc #: Type:

SALE & FINANCE INFORMATION

	LAST SALE		PRIOR SALE
Recording/Sale Date:			
Sale Price/Type:			
Document #:			
Deed Type:			
1st Mtg Loan $/Type:			
1st Mtg Rate/Type/Term:	/	/	
1st Mtg Lender:			
2nd Mtg Loan $/Type:			
2nd Mtg Rate/Type/Term:	/	/	
Title Company:			
Seller:			
New Construction:			

Other Last Sale Info = # Parcels: Type 2: Pend:

SITE INFORMATION

Zoning:	**MULTIP**	Sewer Type:		Acres:	**26.45**
County Use:	**2012**	Water Type:		Lot Area:	**1,152,000**
Improve Type:		View Quality:		Lot Width:	
Bldg Class:		Site Influence:		Lot Depth:	
Flood Panel:				Usable Lot Area:	
Flood Zn Dt:					

Paved Parkg:
Garage Cap#:
Parking Sqft:
Park Spaces:
Parking Type:

IMPROVEMENT INFORMATION

County: **VENTURA, CA**
APN: **216-0-030-075**

Gross Bldg Area:
Bldg/Living Area:
Ground Flr Area:
Rentable Area:
Basement Area:
$/SF:

Porch Type:
Patio Type:
Patio/Deck 1:
Addition 1:

Bldgs:
Res Units:
Comm Units:
Pass Elevtr:
Bldg Comments:

Total Rooms:
Bedrms:
Baths (Full/Half):
Ttl Baths/Fixt:
Yr Built/Eff:
Stories:
Fireplace/#:
Pool:
Condition:
Style:
Quality:
Amenities:
Other Rooms:

Construction:
Foundation:
Ext Wall:
Frame:
Roof Type:
Roof Matl:
Roof Shape:
Heat Fuel:
Heat Type:
Floor Type:
Floor Cover:
Air Cond:
Electric:
Utilities:
Sprinklers:
Equipment:

Other Imprvs:

LEGAL INFORMATION

Legal Plat BkPg:
Legal Blk/Bldg:
Legal Lot/Unit:
Legal Desc: **REF: 2 RS 43**

Legal Truncated:

PROPERTY INFORMATION

5) Property: , CA

APN:	216-0-030-085	Tax Rate Area:	03-014	Use:	HEAVY INDUSTRIAL
Card#:		Property Tax:	$441,502.68	Total Value:	$3,188,813
County:	VENTURA, CA	Tax Yr: 2001	Delinq:	Land Value:	$3,154,457
Census:	31.00	Exemptions:		Imprv Value:	$34,356
Map Pg:	70-C1			Taxable Val:	$3,188,813
New Pg:	523-C4			Assd Yr:	2001
Subdivision:				% Improve:	1%
Owner:	SAKIOKA FARMS			Owner Vest:	/ /
				Phone:	714/545-8611

Mail: 14850 SUNFLOWER AVE; SANTA ANA CA 92707-4933 C023

Ownership Transfer = Date: Doc #: Type:

SALE & FINANCE INFORMATION

	LAST SALE	PRIOR SALE
Recording/Sale Date:		
Sale Price/Type:		
Document #:		
Deed Type:		
1st Mtg Loan $/Type:		
1st Mtg Rate/Type/Term:	/ /	
1st Mtg Lender:		
2nd Mtg Loan $/Type:		
2nd Mtg Rate/Type/Term:	/ /	
Title Company:		
Seller:		
New Construction:		

Other Last Sale Info = # Parcels: Type 2: Pend:

SITE INFORMATION

Zoning:	M1PD	Sewer Type:		Acres:	172.18
County Use:	2020	Water Type:		Lot Area:	7,500,128
Improve Type:		View Quality:		Lot Width:	
Bldg Class:		Site Influence:		Lot Depth:	
Flood Panel:				Usable Lot Area:	
Flood Zn Dt:					

Paved Parkg:
Garage Cap#:
Parking Sqft:
Park Spaces:
Parking Type:

PROPERTY INFORMATION

5) Property: , CA

APN:	216-0-030-085	Tax Rate Area:	03-014	Use:	HEAVY INDUSTRIAL
Card#:		Property Tax:	$441,502.68	Total Value:	$3,188,813
County:	VENTURA, CA	Tax Yr: 2001	Delinq:	Land Value:	$3,154,457
Census:	31.00	Exemptions:		Imprv Value:	$34,356
Map Pg:	70-C1			Taxable Val:	$3,188,813
New Pg:	523-C4			Assd Yr:	2001
Subdivision:				% Improve:	1%
Owner:	SAKIOKA FARMS			Owner Vest:	/ /
				Phone:	714/545-8611

Mail: 14850 SUNFLOWER AVE; SANTA ANA CA 92707-4933 C023

Ownership Transfer = Date: Doc #: Type:

SALE & FINANCE INFORMATION

	LAST SALE	PRIOR SALE
Recording/Sale Date:		
Sale Price/Type:		
Document #:		
Deed Type:		
1st Mtg Loan $/Type:		
1st Mtg Rate/Type/Term:	/ /	
1st Mtg Lender:		
2nd Mtg Loan $/Type:		
2nd Mtg Rate/Type/Term:	/ /	
Title Company:		
Seller:		
New Construction:		

Other Last Sale Info = # Parcels: Type 2: Pend:

SITE INFORMATION

Zoning:	M1PD	Sewer Type:		Acres:	172.18
County Use:	2020	Water Type:		Lot Area:	7,500,128
Improve Type:		View Quality:		Lot Width:	
Bldg Class:		Site Influence:		Lot Depth:	
Flood Panel:				Usable Lot Area:	
Flood Zn Dt:					

Paved Parkg:
Garage Cap#:
Parking Sqft:
Park Spaces:
Parking Type:

IMPROVEMENT INFORMATION

County: **VENTURA, CA**
APN: **216-0-030-085**

Gross Bldg Area:	Total Rooms:	Construction:
Bldg/Living Area:	Bedrms:	Foundation:
Ground Flr Area:	Baths (Full/Half):	Ext Wall:
Rentable Area:	Ttl Baths/Fixt:	Frame:
Basement Area:	Yr Built/Eff:	Roof Type:
$/SF:	# Stories:	Roof Matl:
	Fireplace/#:	Roof Shape:
Porch Type:	Pool:	Heat Fuel:
Patio Type:	Condition:	Heat Type:
Patio/Deck 1:	Style:	Floor Type:
Addition 1:	Quality:	Floor Cover:
	Amenities:	Air Cond:
# Bldgs:	Other Rooms:	Electric:
# Res Units:		Utilities:
# Comm Units:		Sprinklers:
# Pass Elevtr:		Equipment:
Bldg Comments:		
		Other Imprvs:

LEGAL INFORMATION

Legal Plat BkPg:
Legal Blk/Bldg:
Legal Lot/Unit:
Legal Desc: **REF: 2 RS 43**

Legal Truncated:

City of Oxnard

BUILDING INSPECTIONS

FAX COVER SHEET

Date: 7/10/02

To: Richard Beck

Company:

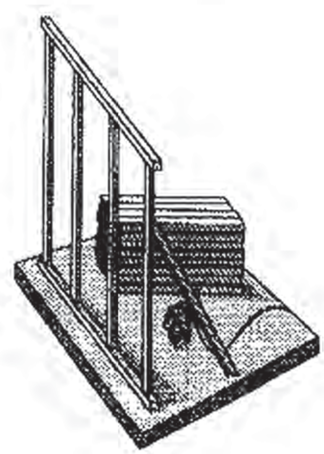
Phone:

Fax #: (949) 837-4122

From: Pattye Lopez
Building Services/Development Services
(805) 385-7936 FAX: 385-7920

Pages including this cover page: 2

Comments: as requested



CITY OF OXNARD
CALIFORNIA

DIVISION OF BUILDING AND SAFETY
241 W. SECOND STREET
PHONE 486-2601, EXT. 316

Date: July 19, 1978

REPORT OF BUILDING RECORDS

Address: 2190 Rice Road   Existing Zoning: M-1-PD
Lot No.:   Block No.:   Tract No.:
Zoning of Abutting Property: North ---, East M-1-PD, South --, West M-1-PD

Permit No.	Date	Description of Permit	No. of Units
	Note:	Because the subject property was annexed to the city	
	several years, this office does not have any record, plans, permits, ect		
	of the farm and structures built on the premises. Bldg permit for move		
	in bldg is	the only permit found in our files.	
20716	8-19-70	Relocate metal tractor shed (temporary use) (Final: 5-11-71)	
		Dwelling Units Constructed by Permit	

Plans are available for review
A Plot Plan of the site is available for review ______ Yes xxx No
______ Yes, a physical examination of the property was made. Yes xxx No
xxx No physical inspection has been made. This report is based upon existing City records only.

See attached buyer's copy of: Variance No.: ----   Use Permit No.: -----
Parcel Map No.: ---   Record of Survey No.: --
Planned Development Permit No.: -----
Other: -----------

The above information is based on a review of records on file with the City of Oxnard and is valid on the date of issuance. No guarantee or warranty, express or implied, is made or given with respect to any portion of this report.

R. S. MIYAHIRA
Administrator, Building and Safety

BY: [signature]
DATE: July 19, 1978

This report must be delivered by the owner (or authorized representative of the owner) to the buyer or transferee of the building prior to the consummation of sale or exchange.

I certify that a copy of the above report was delivered to me 8/7/78 ~~prior to the consummation~~ of sale or exchange of the above described property.

SIGNATURE OF BUYER: × Dakota Farms Inc
MAILING ADDRESS: × 14850 Sunflower [illegible] Santa Paula DATE: 8/28/78

THIS REPORT EXPIRES SIX MONTHS FROM DATE OF ISSUANCE

PROPERTY OWNER: Xerox Corporation
ESCROW NO.:

[illegible] this si[illegible]py to [illegible]ision [illegible]ding a[illegible]

EDR® Environmental Data Resources, Inc.

"Linking Technology with Tradition"

Sanborn® Map Report

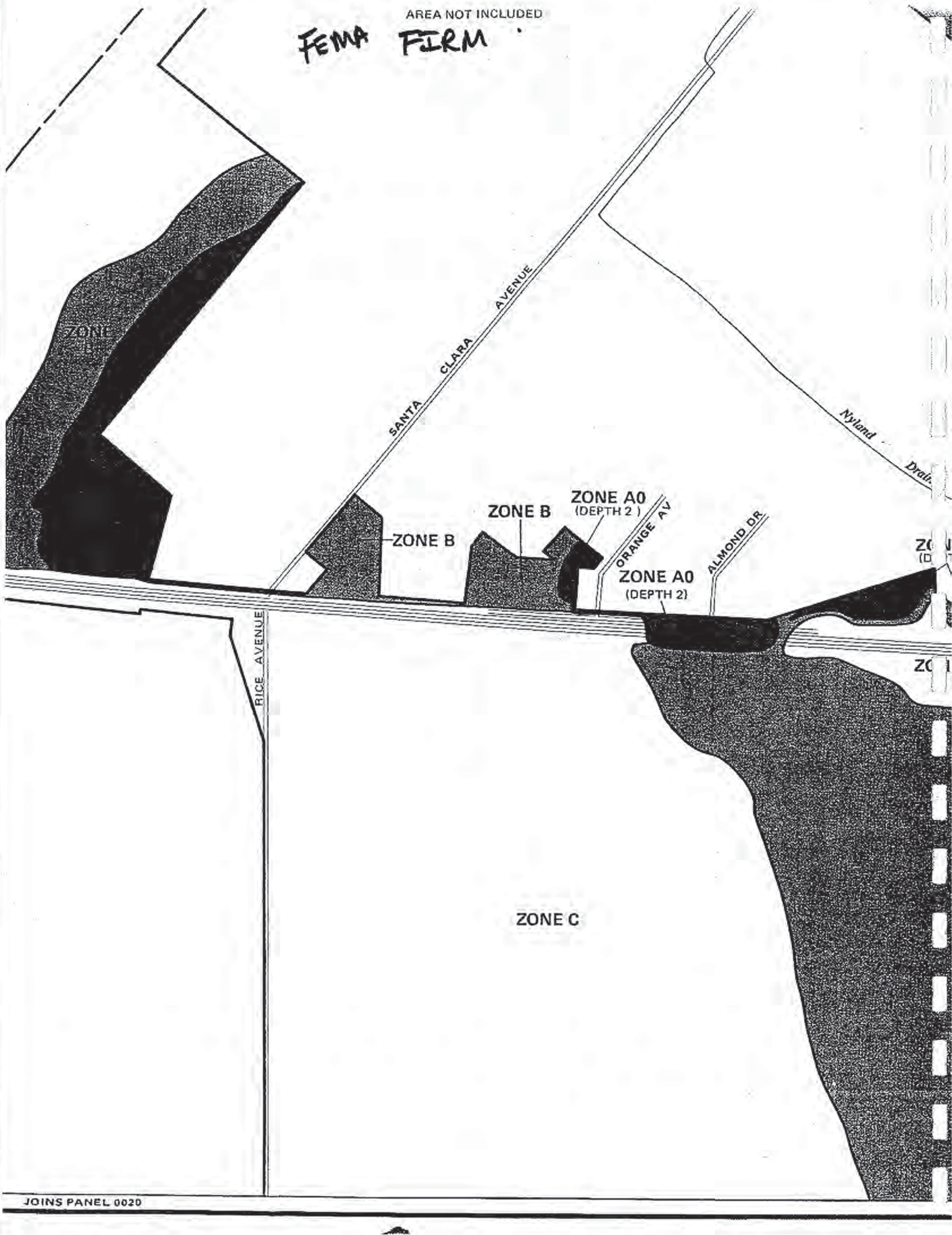
Ship to: Richard Beck
RBF Consulting
14725 Alton Parkway
Irvine, CA 92618

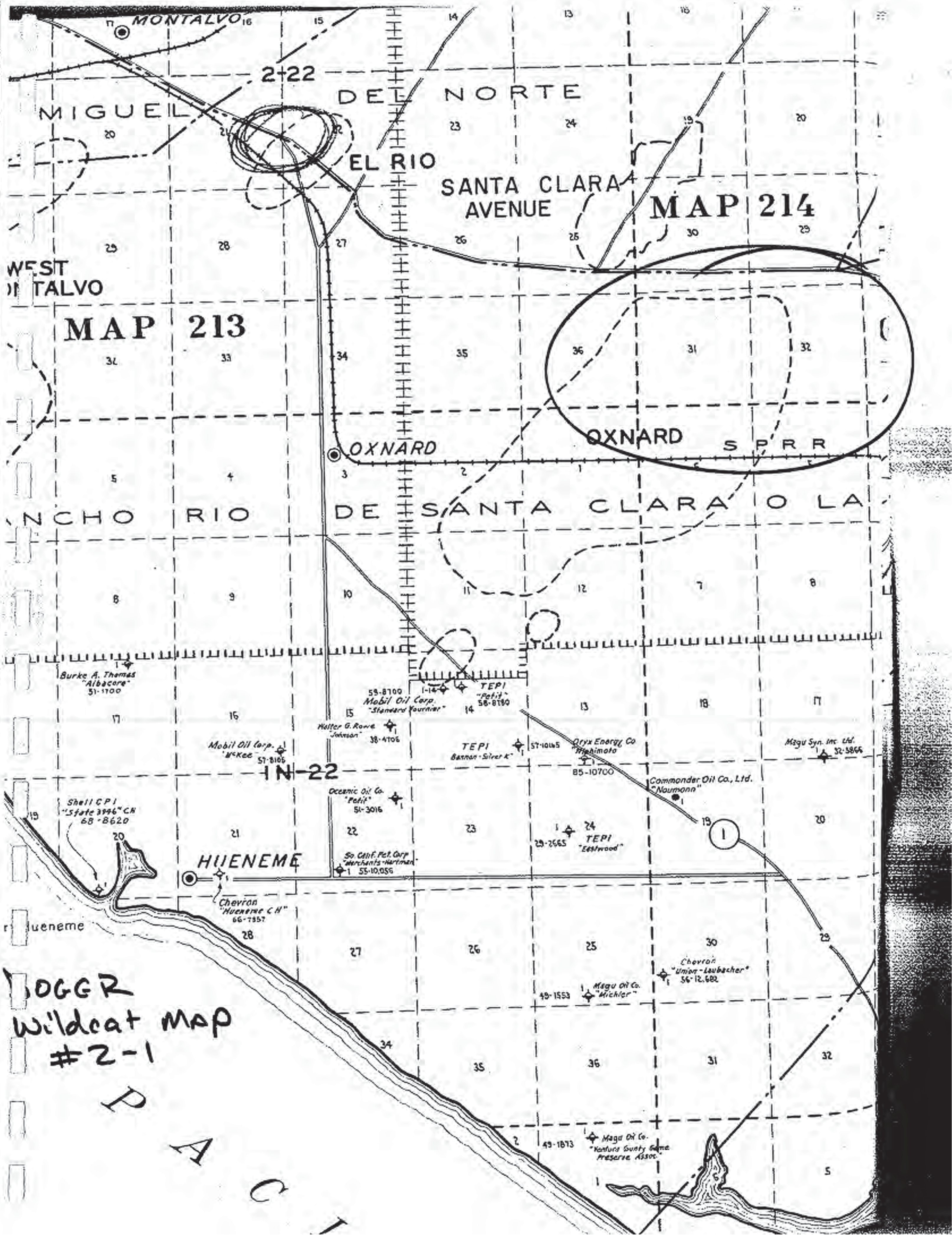
1019746KEN 949-472-3505

Order Date: 7/3/2002 **Completion Date:** 07/05/2002
Inquiry #: 809377.4S
P.O. #: task 10
Site Name: Sakioka Farms
Address: Rice Ave/Del Norte Boulevard
City/State: Oxnard, CA 93030
Cross Streets: Rice Avenue/Del Norte Boulevar

This document reports that the largest and most complete collection of Sanborn fire insurance maps has been reviewed based on client-supplied information, and fire insurance maps depicting the target property at the specified address were not identified.

NO COVERAGE


AREA NOT INCLUDED
FEMA FIRM
ZONE
SANTA CLARA AVENUE
Nyland Drain
ZONE A0
(DEPTH 2)
ZONE B
ZONE B
ORANGE AV
ALMOND DR
ZONE A0
(DEPTH 2)
RICE AVENUE
ZONE C
JOINS PANEL 0020



MONTALVO
2-22
MIGUEL
DEL NORTE
EL RIO
SANTA CLARA AVENUE
MAP 214
WEST
MONTALVO
MAP 213
OXNARD
OXNARD
S P R R
NCHO RIO DE SANTA CLARA O LA
Burke A. Thomas
"Albacore"
51-1700
55-8100
Mobil Oil Corp.
"Standard Fournier"
TEPI
"Petit"
58-8180
Walter G. Rowe
"Johnson"
38-4106
Mobil Oil Corp.
"McKee"
57-8106
TEPI
Bannon-Silver K"
57-10165
Oryx Energy Co
85-10700
Magu Syn. Inc. Ltd.
32-3866
1N-22
Oceanic Oil Co.
"Petit"
51-3016
Commonder Oil Co., Ltd.
"Naumann"
Shell CPI
"State 3996" CH
68-8620
TEPI
"Eastwood"
29-2665
HUENEME
So. Calif. Pet. Corp
"Merchants-Hartman"
55-10,056
Chevron
"Hueneme CH"
66-7357
Hueneme
Chevron
"Union-Laubacher"
56-12,682
Magu Oil Co.
"Michler"
49-1553
Magu Oil Co.
"Ventura County Game Preserve Assoc."
49-1873
P A C
DOGGR
Wildcat Map
#2-1

Date of Government Version: 01/31/02
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/25/02
Date of Next Scheduled EDR Contact: 06/24/02

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Source: Department of Public Health
Telephone: 909-358-5055
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 03/27/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/22/02
Date of Next Scheduled EDR Contact: 07/22/02

Underground Storage Tank Tank List
Source: Health Services Agency
Telephone: 909-358-5055

Date of Government Version: 03/01/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/22/02
Date of Next Scheduled EDR Contact: 07/22/02

SACRAMENTO COUNTY:

CS - Contaminated Sites
Source: Sacramento County Environmental Management
Telephone: 916-875-8406

Date of Government Version: 01/15/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/06/02
Date of Next Scheduled EDR Contact: 08/05/02

ML - Regulatory Compliance Master List
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 01/15/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/06/02
Date of Next Scheduled EDR Contact: 08/05/02

SAN BERNARDINO COUNTY:

Hazardous Material Permits
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 04/03/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/10/02
Date of Next Scheduled EDR Contact: 09/09/02

SAN DIEGO COUNTY:

Solid Waste Facilities
Source: Department of Health Services
Telephone: 619-338-2209
San Diego County Solid Waste Facilities.

Date of Government Version: 08/01/00
Database Release Frequency: Varies

Date of Last EDR Contact: 05/29/02
Date of Next Scheduled EDR Contact: 08/26/02

Hazardous Materials Management Division Database
Source: Hazardous Materials Management Division
Telephone: 619-338-2268
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 03/31/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/09/02
Date of Next Scheduled EDR Contact: 07/08/02

SAN FRANCISCO COUNTY:

Local Oversite Facilities
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920

Date of Government Version: 03/01/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/10/02
Date of Next Scheduled EDR Contact: 09/09/02

Underground Storage Tank Information
Source: Department of Public Health
Telephone: 415-252-3920

Date of Government Version: 03/01/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/10/02
Date of Next Scheduled EDR Contact: 09/09/02

SAN MATEO COUNTY:

Fuel Leak List
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921

Date of Government Version: 04/04/02
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/29/02
Date of Next Scheduled EDR Contact: 07/29/02

Business Inventory
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 05/01/02
Database Release Frequency: Annually

Date of Last EDR Contact: 04/15/02
Date of Next Scheduled EDR Contact: 07/15/02

SANTA CLARA COUNTY:

Fuel Leak Site Activity Report
Source: Santa Clara Valley Water District
Telephone: 408-265-2600

Date of Government Version: 01/03/02
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/01/02
Date of Next Scheduled EDR Contact: 07/01/02

Hazardous Material Facilities
Source: City of San Jose Fire Department
Telephone: 408-277-4659

Date of Government Version: 01/03/02
Database Release Frequency: Annually

Date of Last EDR Contact: 06/10/02
Date of Next Scheduled EDR Contact: 09/09/02

SOLANO COUNTY:

Leaking Underground Storage Tanks
Source: Solano County Department of Environmental Management
Telephone: 707-421-6770

Date of Government Version: 01/02/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/18/02
Date of Next Scheduled EDR Contact: 09/16/02

Underground Storage Tanks
Source: Solano County Department of Environmental Management
Telephone: 707-421-6770

Date of Government Version: 01/02/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/18/02
Date of Next Scheduled EDR Contact: 09/16/02

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
Source: Department of Health Services
Telephone: 707-565-6565

Date of Government Version: 11/29/01
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/29/02
Date of Next Scheduled EDR Contact: 07/29/02

SUTTER COUNTY:

Underground Storage Tanks
Source: Sutter County Department of Agriculture
Telephone: 530-822-7500

Date of Government Version: 07/01/01
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/08/02
Date of Next Scheduled EDR Contact: 07/08/02

VENTURA COUNTY:

Inventory of Illegal Abandoned and Inactive Sites
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 04/02/01
Database Release Frequency: Annually

Date of Last EDR Contact: 05/29/02
Date of Next Scheduled EDR Contact: 08/26/02

Listing of Underground Tank Cleanup Sites
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 03/12/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/18/02
Date of Next Scheduled EDR Contact: 09/16/02

Underground Tank Closed Sites List
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 05/24/01
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/15/02
Date of Next Scheduled EDR Contact: 07/15/02

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 02/19/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/18/02
Date of Next Scheduled EDR Contact: 09/16/02

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Source: Yolo County Department of Health
Telephone: 530-666-8646

Date of Government Version: 05/01/02
Database Release Frequency: Annually

Date of Last EDR Contact: 04/22/02
Date of Next Scheduled EDR Contact: 07/22/02

California Regional Water Quality Control Board (RWQCB) LUST Records

LUST REG 1: Active Toxic Site Investigation
Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-576-2220
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/01
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 05/28/02
Date of Next Scheduled EDR Contact: 08/26/02

LUST REG 2: Fuel Leak List
Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457

Date of Government Version: 12/01/01
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/16/02
Date of Next Scheduled EDR Contact: 07/15/02

LUST REG 3: Leaking Underground Storage Tank Database
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147

Date of Government Version: 05/22/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/20/02
Date of Next Scheduled EDR Contact: 08/19/02

LUST REG 4: Underground Storage Tank Leak List
Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-266-6600
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 08/09/01
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 04/01/02
Date of Next Scheduled EDR Contact: 07/01/02

LUST REG 5: Leaking Underground Storage Tank Database
Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-255-3125

Date of Government Version: 04/01/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/12/02
Date of Next Scheduled EDR Contact: 07/08/02

LUST REG 6L: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 916-542-5424
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 01/02/02
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 04/22/02
Date of Next Scheduled EDR Contact: 07/08/02

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-346-7491

Date of Government Version: 01/02/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/08/02
Date of Next Scheduled EDR Contact: 07/08/02

LUST REG 7: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-346-7491

Date of Government Version: 04/01/02
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/01/02
Date of Next Scheduled EDR Contact: 07/01/02

LUST REG 8: Leaking Underground Storage Tanks
Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4498
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 07/23/01
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 05/13/02
Date of Next Scheduled EDR Contact: 08/12/02

LUST REG 9: Leaking Underground Storage Tank Report
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/01
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 04/22/02
Date of Next Scheduled EDR Contact: 07/22/02

California Regional Water Quality Control Board (RWQCB) SLIC Records

SLIC REG 1: Active Toxic Site Investigations
Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220

Date of Government Version: 02/01/01
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/31/02
Date of Next Scheduled EDR Contact: 08/26/02

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 12/01/01
Database Release Frequency: Quarterly
Date of Last EDR Contact: 04/16/02
Date of Next Scheduled EDR Contact: 07/15/02

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 05/22/02
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 05/20/02
Date of Next Scheduled EDR Contact: 08/19/02

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 09/13/01
Database Release Frequency: Quarterly
Date of Last EDR Contact: 05/01/02
Date of Next Scheduled EDR Contact: 07/29/02

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-855-3075
Unregulated sites that impact groundwater or have the potential to impact groundwater.

Date of Government Version: 03/31/02
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 04/12/02
Date of Next Scheduled EDR Contact: 07/08/02

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583

Date of Government Version: 07/19/01
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 04/08/02
Date of Next Scheduled EDR Contact: 07/08/02

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-3298

Date of Government Version: 07/31/01
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 04/10/02
Date of Next Scheduled EDR Contact: 07/08/02

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980

Date of Government Version: 03/01/02
Database Release Frequency: Annually
Date of Last EDR Contact: 06/03/02
Date of Next Scheduled EDR Contact: 09/02/02

EDR PROPRIETARY HISTORICAL DATABASES

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

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The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines/Electrical Transmission Lines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines and electrical transmission lines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

SAKIOKA FARMS
RICE AVE/DEL NORTE BOULEVARD
OXNARD, CA 93030

TARGET PROPERTY COORDINATES

Latitude (North):	34.219200 - 34° 13' 9.1"
Longitude (West):	119.134499 - 119° 8' 4.2"
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	303370.0
UTM Y (Meters):	3788326.0

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

USGS TOPOGRAPHIC MAP ASSOCIATED WITH THIS SITE

Target Property: 2434119-B2 OXNARD, CA
Source: USGS 7.5 min quad index

GENERAL TOPOGRAPHIC GRADIENT AT TARGET PROPERTY

Target Property: General SSE

Source: General Topographic Gradient has been determined from the USGS 1 Degree Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
VENTURA, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 0604190010C / CBPP

Additional Panels in search area: 0604130905B / CBPP
0604130885B / CBPP
0650200004B / CBPP
0604190020C / CBPP

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
OXNARD	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Site-Specific Hydrogeological Data**:

Search Radius:	2.0 miles
Status:	Not found

AQUIFLOW®

Search Radius: 2.000 Miles.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Component Name: CAMARILLO

Soil Surface Texture: loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Poorly. Soils may have a saturated zone, a layer of low hydraulic conductivity, or seepage. Depth to water table is less than 1 foot.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: HIGH

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	24 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 8.40 Min: 7.90
2	24 inches	50 inches	stratified	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 8.40 Min: 7.90
3	50 inches	80 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COURSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COURSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 6.00 Min: 2.00	Max: 8.40 Min: 7.90

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures:	sandy loam silty clay loam loamy sand
Surficial Soil Types:	sandy loam silty clay loam loamy sand
Shallow Soil Types:	No Other Soil Types
Deeper Soil Types:	stratified

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

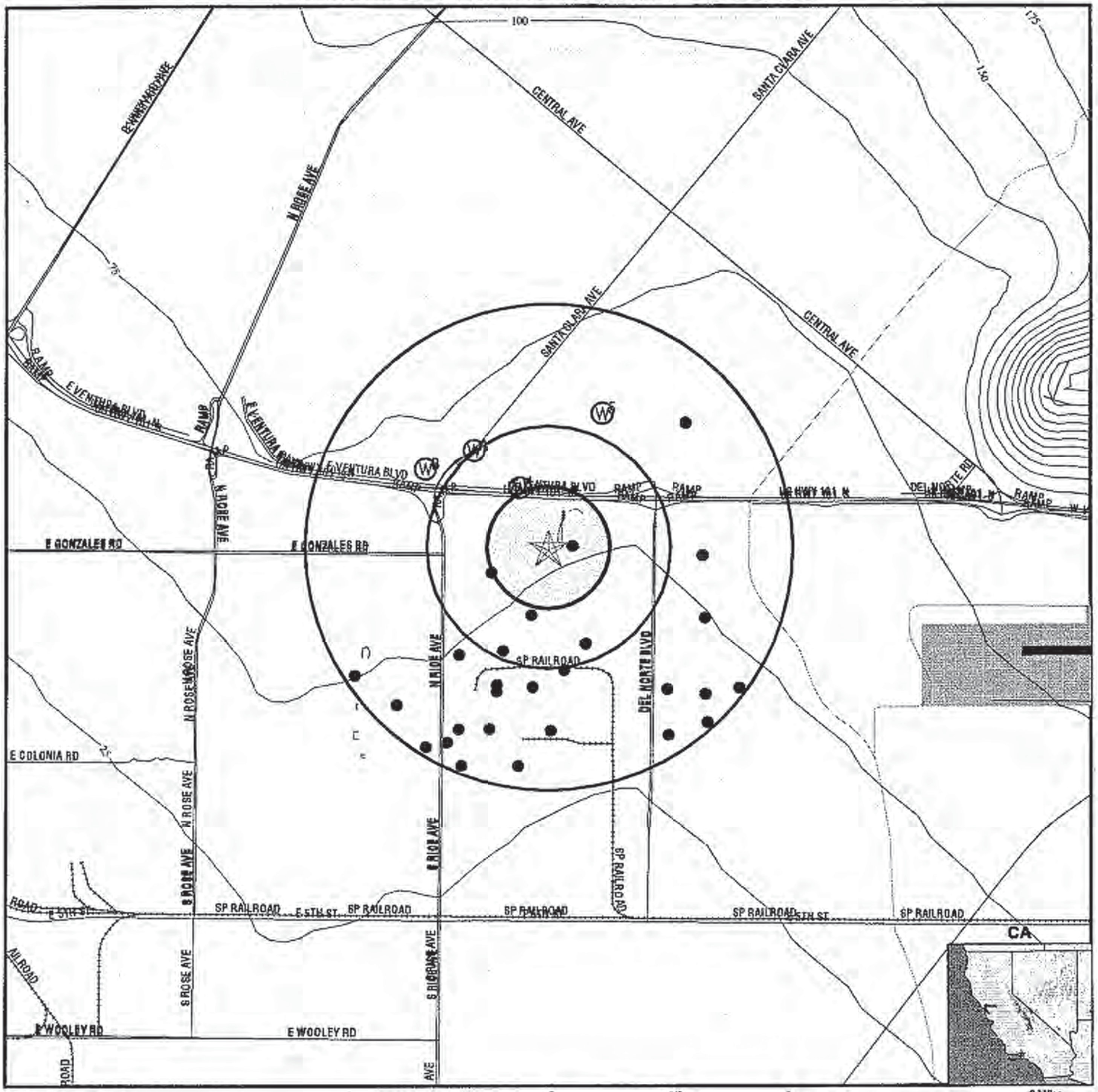
MAP ID	WELL ID	LOCATION FROM TP
1	2311	1/4 - 1/2 Mile NNW
A2	2306	1/2 - 1 Mile NW
A3	2307	1/2 - 1 Mile NW
B4	2310	1/2 - 1 Mile WNW
5	2305	1/2 - 1 Mile NNE
B6	2309	1/2 - 1 Mile WNW

STATE OIL/GAS WELL INFORMATION

DISTANCE FROM TP (Miles)
1/2 - 1 Mile NE
1/2 - 1 Mile ESE
1/4 - 1/2 Mile SSW
1/4 - 1/2 Mile South
1/2 - 1 Mile SW
1 - 2 Miles SW
1/2 - 1 Mile SSW
1/2 - 1 Mile SSE
1/2 - 1 Mile SE
1/2 - 1 Mile SSE
1/2 - 1 Mile SSW
1/2 - 1 Mile SSE
1 - 2 Miles SW
1 - 2 Miles SSW

DISTANCE FROM TP (Miles)
0 - 1/8 Mile South
1/4 - 1/2 Mile WSW
1/2 - 1 Mile SE
1/2 - 1 Mile SSW
1/2 - 1 Mile South
1/2 - 1 Mile SSW
1/2 - 1 Mile SE
1/2 - 1 Mile SSW
1 - 2 Miles SW
1/2 - 1 Mile SSW
1/2 - 1 Mile South
1 - 2 Miles SSW
1 - 2 Miles SSW

PHYSICAL SETTING SOURCE MAP - 809377.3s



0 1/2 1 2 Miles

- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Water Wells
- Public Water Supply Wells
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Cluster of Multiple Icons
- Earthquake epicenter, Richter 5 or greater
- Closest Hydrogeological Data
- Oil, gas or related wells

TARGET PROPERTY:	Sakioka Farms	CUSTOMER:	RBF Consulting
ADDRESS:	Rice Ave/Del Norte Boulevard	CONTACT:	Richard Beck
CITY/STATE/ZIP:	Oxnard CA 93030	INQUIRY #:	809377.3s
LAT/LONG:	34.2192 / 119.1345	DATE:	July 03, 2002 3:59 pm

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
1 **NNW** **1/4 - 1/2 Mile** **Higher**	**CA WELLS**	**2311**

Water System Information:

Prime Station Code:	02N/22W-25Q01 S	User ID:	TAP
FRDS Number:	5602108001	County:	Ventura
District Number:	06	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Inactive Raw
Source Lat/Long:	341322.0 1190808.0	Precision:	100 Feet (one Second)
Source Name:	WELL 01 - INACTIVE		
System Number:	5602108		
System Name:	GARDEN ACRES MUTUAL WATER CO		
Organization That Operates System:			
	2838 FRIEDRICH ROAD		
	OXNARD, CA 93030		
Pop Served:	795	Connections:	210
Area Served:	Not Reported		

Sample Information: * Only Findings Above Detection Level Are Listed

Sample Collected:	02/15/1993	Findings:	21.700 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08/09/1993	Findings:	9.100 MG/L
Chemical:	NITRATE (AS NO3)		

A2 **NW** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**2306**

Water System Information:

Prime Station Code:	02N/22W-25L02 S	User ID:	TAP
FRDS Number:	5602111001	County:	Ventura
District Number:	06	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Inactive Raw
Source Lat/Long:	341330.0 1190820.0	Precision:	100 Feet (one Second)
Source Name:	WELL 02 - INACTIVE		
System Number:	5602111		
System Name:	NYELAND ACRES MUTUAL WATER CO		
Organization That Operates System:			
	3190 SANTA CLARA AVE.		
	OXNARD, CA 93030		
Pop Served:	1072	Connections:	325
Area Served:	Not Reported		

A3 **NW** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**2307**

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Water System Information:

Prime Station Code:	02N/22W-25L03 S	User ID:	TAP
FRDS Number:	5602111002	County:	Ventura
District Number:	06	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Destroyed
Source Lat/Long:	341330.0 1190820.0	Precision:	100 Feet (one Second)
Source Name:	WELL 03 - DESTROYED		
System Number:	5602111		
System Name:	NYELAND ACRES MUTUAL WATER CO		
Organization That Operates System:			
	3190 SANTA CLARA AVE.		
	OXNARD, CA 93030		
Pop Served:	1072	Connections:	325
Area Served:	Not Reported		

Sample Information: * Only Findings Above Detection Level Are Listed

Sample Collected:	12/21/1992	Findings:	8.700 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05/26/1993	Findings:	2400.000 UMHO
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	05/26/1993	Findings:	7.200
Chemical:	PH (LABORATORY)		
Sample Collected:	05/26/1993	Findings:	260.000 MG/L
Chemical:	TOTAL ALKALINITY (AS CACO3)		
Sample Collected:	05/26/1993	Findings:	317.000 MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	05/26/1993	Findings:	1220.000 MG/L
Chemical:	TOTAL HARDNESS (AS CACO3)		
Sample Collected:	05/26/1993	Findings:	316.000 MG/L
Chemical:	CALCIUM		
Sample Collected:	05/26/1993	Findings:	106.000 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	05/26/1993	Findings:	173.000 MG/L
Chemical:	SODIUM		
Sample Collected:	05/26/1993	Findings:	7.000 MG/L
Chemical:	POTASSIUM		
Sample Collected:	05/26/1993	Findings:	107.000 MG/L
Chemical:	CHLORIDE		
Sample Collected:	05/26/1993	Findings:	1180.000 MG/L
Chemical:	SULFATE		
Sample Collected:	05/26/1993	Findings:	.600 MG/L
Chemical:	FLUORIDE (TEMPERATURE DEPENDENT)		
Sample Collected:	05/26/1993	Findings:	2160.000 MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	05/26/1993	Findings:	23.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05/26/1993	Findings:	.120 NTU
Chemical:	TURBIDITY (LAB)		
Sample Collected:	04/07/1994	Findings:	52.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05/16/1994	Findings:	50.000 MG/L
Chemical:	NITRATE (AS NO3)		

Sample Collected:	06/20/1994	Findings:	48.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07/11/1994	Findings:	47.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07/12/1994	Findings:	2108.000 UMHO
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	07/12/1994	Findings:	7.100
Chemical:	PH (LABORATORY)		
Sample Collected:	07/12/1994	Findings:	259.000 MG/L
Chemical:	TOTAL ALKALINITY (AS CACO3)		
Sample Collected:	07/12/1994	Findings:	316.000 MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	07/12/1994	Findings:	980.000 MG/L
Chemical:	TOTAL HARDNESS (AS CACO3)		
Sample Collected:	07/12/1994	Findings:	243.000 MG/L
Chemical:	CALCIUM		
Sample Collected:	07/12/1994	Findings:	88.000 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	07/12/1994	Findings:	161.000 MG/L
Chemical:	SODIUM		
Sample Collected:	07/12/1994	Findings:	5.500 MG/L
Chemical:	POTASSIUM		
Sample Collected:	07/12/1994	Findings:	86.000 MG/L
Chemical:	CHLORIDE		
Sample Collected:	07/12/1994	Findings:	900.000 MG/L
Chemical:	SULFATE		
Sample Collected:	07/12/1994	Findings:	.660 MG/L
Chemical:	FLUORIDE (TEMPERATURE DEPENDENT)		
Sample Collected:	07/12/1994	Findings:	49.000 UG/L
Chemical:	SELENIUM		
Sample Collected:	07/12/1994	Findings:	1787.000 MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	07/12/1994	Findings:	46.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07/12/1994	Findings:	1.800 UG/L
Chemical:	MERCURY		
Sample Collected:	07/12/1994	Findings:	.150 NTU
Chemical:	TURBIDITY (LAB)		
Sample Collected:	09/09/1994	Findings:	45.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	10/12/1994	Findings:	39.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01/06/1995	Findings:	42.000 MG/L
Chemical:	NITRATE (AS NO3)		

Map ID Direction Distance Elevation	Database	EDR ID Number
B4 **WNW** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**2310**

Water System Information:

Prime Station Code:	02N/22W-25N03 S	User ID:	56C
FRDS Number:	5602105001	County:	Ventura
District Number:	86	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	341325.0 1190830.0	Precision:	100 Feet (one Second)
Source Name:	WELL 01		
System Number:	5602105		
System Name:	PLAZA MOBILE HOME PARK		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

5 **NNE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**2305**

Water System Information:

Prime Station Code:	02N/22W-25J01 S	User ID:	TAP
FRDS Number:	5602108002	County:	Ventura
District Number:	06	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	341338.0 1190747.8	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 03 (1993)		
System Number:	5602108		
System Name:	GARDEN ACRES MUTUAL WATER CO		
Organization That Operates System:	2838 FRIEDRICH ROAD OXNARD, CA 93030		
Pop Served:	795	Connections:	210
Area Served:	Not Reported		

Sample Information: * Only Findings Above Detection Level Are Listed

Sample Collected:	10/20/1993	Findings:	9.600 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	10/27/1993	Findings:	7.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11/01/1993	Findings:	1450.000 UMHO
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	11/01/1993	Findings:	7.600
Chemical:	PH (LABORATORY)		
Sample Collected:	11/01/1993	Findings:	228.000 MG/L
Chemical:	TOTAL ALKALINITY (AS CACO3)		
Sample Collected:	11/01/1993	Findings:	278.000 MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	11/01/1993	Findings:	606.000 MG/L
Chemical:	TOTAL HARDNESS (AS CACO3)		
Sample Collected:	11/01/1993	Findings:	157.000 MG/L
Chemical:	CALCIUM		

Sample Collected:	11/01/1993	Findings:	52.000 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	11/01/1993	Findings:	5.000 MG/L
Chemical:	SODIUM		
Sample Collected:	11/01/1993	Findings:	103.000 MG/L
Chemical:	POTASSIUM		
Sample Collected:	11/01/1993	Findings:	51.000 MG/L
Chemical:	CHLORIDE		
Sample Collected:	11/01/1993	Findings:	.700 MG/L
Chemical:	FLUORIDE (TEMPERATURE DEPENDENT)		
Sample Collected:	11/01/1993	Findings:	7.000 UG/L
Chemical:	SELENIUM		
Sample Collected:	11/01/1993	Findings:	10.600
Chemical:	LANGELIER INDEX @ SOURCE TEMP.		
Sample Collected:	11/01/1993	Findings:	9.400 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12/20/1993	Findings:	9.600 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01/20/1994	Findings:	9.900 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	02/08/1994	Findings:	10.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/07/1994	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04/07/1994	Findings:	9.600 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05/05/1994	Findings:	10.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06/14/1994	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07/08/1994	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08/12/1994	Findings:	9.500 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09/09/1994	Findings:	8.300 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12/09/1994	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01/06/1995	Findings:	9.900 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	02/09/1995	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/06/1995	Findings:	10.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04/05/1995	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05/08/1995	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07/13/1995	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		

Sample Collected:	10/31/1995	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11/27/1995	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12/08/1995	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01/18/1996	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	02/07/1996	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/11/1996	Findings:	10.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04/10/1996	Findings:	10.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07/11/1996	Findings:	8.000 PCI/L
Chemical:	GROSS ALPHA		
Sample Collected:	07/11/1996	Findings:	4.000 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	07/11/1996	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08/01/1996	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09/13/1996	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11/13/1996	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12/18/1996	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01/09/1997	Findings:	11.000 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01/10/1997	Findings:	6.000 PCI/L
Chemical:	GROSS ALPHA		
Sample Collected:	01/10/1997	Findings:	3.000 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		

B6
WNW
1/2 - 1 Mile
Higher

CA WELLS 2309

Water System Information:

Prime Station Code:	02N/22W-25M01 S	User ID:	56C
FRDS Number:	5602119001	County:	Ventura
District Number:	86	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	341327.0 1190835.0	Precision:	100 Feet (one Second)
Source Name:	WELL 03		

System Number: 5602119
System Name: VALLEY VILLA TRAILER PARK
Organization That Operates System:
Not Reported
Pop Served: Unknown, Small System — Connections: Unknown, Small System
Area Served: Not Reported

Direction Distance	Database	EDR ID Number
NE 1/2 - 1 Mile	**OIL_GAS**	**CA00012644**
NE 1/2 - 1 Mile	**CA OIL/GAS**	**CA00012644**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	11105734	Operator:	Lloyd Corporation, Ltd
Latitude:	34.226650	Longitude:	-119.123787
Region:	2	Lease:	Friedrich 1
Section:	30	Township:	02N
Range:	21W	Map Number:	214
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

Direction Distance	Database	EDR ID Number
South 0 - 1/8 Mile	**OIL_GAS**	**CA00010339**
South 0 - 1/8 Mile	**CA OIL/GAS**	**CA00010339**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	11101157	Operator:	San Roque Oiland Exploration
Latitude:	34.219287	Longitude:	-119.131816
Region:	2	Lease:	McGrath
Section:	36	Township:	02N
Range:	22W	Map Number:	214
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

Direction Distance	Database	EDR ID Number
ESE 1/2 - 1 Mile	**OIL_GAS**	**CA00012646**
ESE 1/2 - 1 Mile	**CA OIL/GAS**	**CA00012646**

Well Number:	2	Status:	Plugged and abandoned-dry hole
API Number:	11101100	Operator:	Lloyd Corporation, Ltd
Latitude:	34.218723	Longitude:	-119.122575
Region:	2	Lease:	Lloyd Corp.-Power
Section:	31	Township:	02N
Range:	21W	Map Number:	214
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

Direction Distance	Database	EDR ID Number
WSW 1/4 - 1/2 Mile	**OIL_GAS**	**CA00010673**
WSW 1/4 - 1/2 Mile	**CA OIL/GAS**	**CA00010673**

Well Number:	4	Status:	Plugged and abandoned-dry hole
API Number:	11101154	Operator:	Reserve Oil and Gas Company
Latitude:	34.217680	Longitude:	-119.137632
Region:	2	Lease:	McGrath
Section:	36	Township:	02N
Range:	22W	Map Number:	214
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

Direction Distance	Database	EDR ID Number
SSW 1/4 - 1/2 Mile	**OIL_GAS**	**CA00010340**
SSW 1/4 - 1/2 Mile	**CA OIL/GAS**	**CA00010340**

Well Number:	2	Status:	Plugged and abandoned-dry hole
API Number:	11101161	Operator:	San Roque Oiland Exploration
Latitude:	34.215143	Longitude:	-119.134765
Region:	2	Lease:	McGrath
Section:	36	Township:	02N
Range:	22W	Map Number:	214
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

Direction Distance	Database	EDR ID Number
SE 1/2 - 1 Mile	**OIL_GAS**	**CA00015377**
SE 1/2 - 1 Mile	**CA OIL/GAS**	**CA00015377**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	11101027	Operator:	Cabeen Exploration Co
Latitude:	34.214972	Longitude:	-119.122411
Region:	2	Lease:	Hunter Power
Section:	31	Township:	02N
Range:	21W	Map Number:	214
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

Direction Distance	Database	EDR ID Number
South 1/4 - 1/2 Mile	**OIL_GAS**	**CA00014804**
South 1/4 - 1/2 Mile	**CA OIL/GAS**	**CA00014804**

Well Number:	2	Status:	Plugged and abandoned oil
API Number:	11102461	Operator:	Chevron USA, Inc.
Latitude:	34.213420	Longitude:	-119.130881
Region:	2	Lease:	McGrath 13
Section:	36	Township:	02N
Range:	22W	Map Number:	214
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

Direction Distance	Database	EDR ID Number
SSW 1/2 - 1 Mile	**OIL_GAS**	**CA00014803**
SSW 1/2 - 1 Mile	**CA OIL/GAS**	**CA00014803**

Well Number:	1A	Status:	Plugged and abandoned oil-directional
API Number:	11102460	Operator:	Chevron USA, Inc.
Latitude:	34.212996	Longitude:	-119.136821
Region:	2	Lease:	McGrath 13
Section:	36	Township:	02N
Range:	22W	Map Number:	214
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

Direction Distance	Database	EDR ID Number
SW 1/2 - 1 Mile	**OIL_GAS**	**CA00014805**
SW 1/2 - 1 Mile	**CA OIL/GAS**	**CA00014805**

Well Number:	3	Status:	Plugged and abandoned-dry hole
API Number:	11101289	Operator:	Chevron USA, Inc.
Latitude:	34.212760	Longitude:	-119.139976
Region:	2	Lease:	McGrath 13
Section:	36	Township:	02N
Range:	22W	Map Number:	214
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for VENTURA County: 1

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 93030

Number of sites tested: 9

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.478 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the national Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-260-2805

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-260-2805

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: In November 1971 the United States Geological Survey (USGS) implemented a national water resource information tracking system. This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on more than 900,000 wells, springs, and other sources of groundwater.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STATE RECORDS

California Drinking Water Quality Database
Source: Department of Health Services
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations for District 2, 3, 5 and 6
Source: Department of Conservation
Telephone: 916-323-1779

RADON

Area Radon Information
Source: EPA
Telephone: 303-236-1525
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 202-564-9370
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

B. Documentation

Map ID Direction Distance Distance (ft.) Elevation	Site	Database(s)	EDR ID Number EPA ID Number
36 SW 1/2-1 4372 ft. Higher	**MAUL-GRAVES LEASING CO.** **833 MAULHARDT AVE** **OXNARD, CA 93030**	**LUST** **Cortese**	**S102433106** **N/A**

State LUST:

Cross Street:	Not reported		
Qty Leaked:	Not reported		
Case Number	C-87010		
Reg Board:	Los Angeles Region		
Chemical:	Diesel		
Lead Agency:	Local Agency		
Local Agency :	56000		
Case Type:	Other ground water affected		
Status:	Signed off, remedial action completed or deemed unnecessary		
County:	Ventura		
Abate Method:	Excavate and Treat - remove contaminated soil and treat (includes spreading or land farming), Vent Soil - bore holes in soil to allow volatilization of contaminants		
Review Date:	7/1/1988	Confirm Leak:	7/1/1988
Workplan:	12/14/1992	Prelim Assess:	12/14/1992
Pollution Char:	6/15/1993	Remed Plan:	6/15/1993
Remed Action:	Not reported	Monitoring:	Not reported
Close Date:	2/1/1994		
Release Date:	1/23/1987		
Cleanup Fund Id :	Not reported		
Discover Date :	1/23/1987		
Enforcement Dt :	1/23/1987		
Enf Type:	Not reported		
Enter Date :	Not reported		
Funding:	Federal Funds		
Staff Initials:	UNK		
How Discovered:	Not reported		
How Stopped:	Not reported		
Interim :	Not reported		
Leak Cause:	Not reported		
Leak Source:	Not reported		
MTBE Date :	Not reported		
Max MTBE GW :	Not reported		
MTBE Tested:	Not Required to be Tested.		
Priority:	Not reported		
Local Case # :	87010		
Beneficial:	Not reported		
Staff :	JH		
GW Qualifies :	Not reported		
Max MTBE Soil :	Not reported		
Soil Qualifies :	Not reported		
Hydr Basin #:	Not reported		
Operator :	Not reported		
Oversight Prgm:	Local Oversight Program UST		
Oversight Prgm :	LOP		
Review Date :	Not reported		
Stop Date :	Not reported		
Work Suspended :	Not reported		
Responsible Party	DR. PEPPER		
RP Address:	Not reported		
Global Id:	T0611100174		
Org Name:	Not reported		

MAUL-GRAVES LEASING CO. (Continued) **S102433106**

Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 0
Water System Name: Not reported
Well Name: WELL 01
Distance To Lust: 4957.7651279242420508724286736
Waste Discharge Global ID: W0611102105
Waste Disch Assigned Name: 02N/22W-25N03 S

LUST Region 4:
Report Date: 1/23/1987
Lead Agency: Local Agency
Local Agency: 56000
Case Number: C-87010
Substance: Diesel
Case Type: Groundwater
Status: Signed off, remedial action completed or deemed unnecessary
Region: 4
Staff: Not reported

LUST Region VN:
Facility ID: 87010
Status: Active

CORTESE:
Reg Id: C-87010
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

I37
SW
1/2-1
4621 ft.
Same

JONES INTERCABLE
721 MAULHARDT AVE
OXNARD, CA 93030

Site 1 of 4 in cluster I

LUST **S104164823**
Cortese **N/A**

State LUST:
Cross Street: Not reported
Qty Leaked: Not reported
Case Number C-88111
Reg Board: Los Angeles Region
Chemical: Gasoline
Lead Agency: Local Agency
Local Agency : 56000
Case Type: Other ground water affected
Status: Signed off, remedial action completed or deemed unnecessary ✓
County: Ventura
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site, Vent Soil - bore holes in soil to allow volatilization of contaminants

Review Date:	8/22/1988	Confirm Leak:	8/22/1988
Workplan:	1/15/1990	Prelim Assess:	1/15/1990
Pollution Char:	2/15/1991	Remed Plan:	2/15/1991
Remed Action:	12/5/1994	Monitoring:	12/5/1994
Close Date:	5/18/1995		
Release Date:	8/22/1988		
Cleanup Fund Id :	Not reported		
Discover Date :	8/22/1988		
Enforcement Dt :	8/22/1988		
Enf Type:	Not reported		
Enter Date :	Not reported		

Map ID Direction Distance Distance (ft.) Elevation	Site	Database(s)	EDR ID Number EPA ID Number

JONES INTERCABLE (Continued) **S104164823**

Funding: Federal Funds
Staff Initials: UNK
How Discovered: Not reported
How Stopped: Not reported
Interim : Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : Not reported
Max MTBE GW : Not reported
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority: Not reported
Local Case # : 88111
Beneficial: Not reported
Staff : JH
GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Oversight Program UST
Oversight Prgm : LOP
Review Date : Not reported
Stop Date : Not reported
Work Suspended :Not reported
Responsible PartyJONES INTERCABLE INC
RP Address: Not reported
Global Id: T0611100351
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: WELL 01
Distance To Lust: 5351.5714189310083529508223108
Waste Discharge Global ID: W0611102105
Waste Disch Assigned Name: 02N/22W-25N03 S

LUST Region 4:
Report Date: 8/22/1988
Lead Agency: Local Agency
Local Agency: 56000
Case Number: C-88111
Substance: Gasoline
Case Type: Groundwater
Status: Signed off, remedial action completed or deemed unnecessary ✓
Region: 4
Staff: Not reported

LUST Region VN:
Facility ID: 88111
Status: Active

CORTESE:
Reg Id: C-88111
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

Map ID Direction Distance Distance (ft.) Elevation	Site	Database(s)	EDR ID Number EPA ID Number
J38 SSW 1/2-1 4661 ft. Lower	**MAULHARDT TRUST/BLACK GOLD IND** **527 RICE AVE** **OXNARD, CA 93030** **Site 1 of 2 in cluster J**	**LUST** **Cortese**	**S103317841** **N/A**

State LUST:

Cross Street:	Not reported
Qty Leaked:	Not reported
Case Number	C-98025
Reg Board:	Los Angeles Region
Chemical:	Gasoline
Lead Agency:	Local Agency
Local Agency :	56000
Case Type:	Soil only
Status:	Preliminary site assessment workplan submitted
County:	Ventura
Review Date:	8/19/1998
Workplan:	Not reported
Pollution Char:	Not reported
Remed Action:	Not reported
Close Date:	Not reported
Release Date:	8/19/1998
Cleanup Fund Id :	Not reported
Discover Date :	8/19/1998
Enforcement Dt :	Not reported
Enf Type:	Not reported
Enter Date :	Not reported
Funding:	Federal Funds
Staff Initials:	UNK
How Discovered:	Not reported
How Stopped:	Not reported
Interim :	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
MTBE Date :	Not reported
Max MTBE GW :	Not reported
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority:	Not reported
Local Case # :	98025
Beneficial:	Not reported
Staff :	JH
GW Qualifies :	Not reported
Max MTBE Soil :	Not reported
Soil Qualifies :	Not reported
Hydr Basin #:	Not reported
Operator :	Not reported
Oversight Prgm:	Local Oversight Program UST
Oversight Prgm :	LOP
Review Date :	Not reported
Stop Date :	Not reported
Work Suspended :	Not reported
Responsible Party	JEANNE G MAULHARDT TRUST DBA M
RP Address:	Not reported
Global Id:	T0611101183
Org Name:	Not reported
Contact Person:	Not reported
MTBE Conc:	0
Mtbe Fuel:	1

Confirm Leak:	8/19/1998
Prelim Assess:	Not reported
Remed Plan:	Not reported
Monitoring:	Not reported

Map ID Direction Distance Distance (ft.) Elevation	Site	Database(s)	EDR ID Number EPA ID Number

MAULHARDT TRUST/BLACK GOLD IND (Continued) **S103317841**

Water System Name: HAILWOOD INC WATER SYSTEM NO 9
Well Name: WELL 09
Distance To Lust: 4573.8333215392682612833566443
Waste Discharge Global ID: W0611102510
Waste Disch Assigned Name: 01N/21W-06L05 S

LUST Region 4:
Report Date: 8/19/1998
Lead Agency: Local Agency
Local Agency: 56000
Case Number: C-98025
Substance: Gasoline
Case Type: Soil
Status: Preliminary site assessment workplan submitted
Region: 4
Staff: Not reported

LUST Region VN:
Facility ID: 98025
Status: Active

CORTESE:
Reg Id: C-98025
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

I39
SW
1/2-1
4669 ft.
Same

700 MAULHARDT AVENUE
OXNARD, CA 93030

Site 2 of 4 in cluster I

CHMIRS **S100221658**
N/A

CHMIRS:
OES Control Number: 9099645 DOT ID: 2031
DOT Hazard Class: Flammable solids, spontaneously combustible materials and materials that are dangerous when wet
Chemical Name: ACID, NITRIC
Extent of Release: Not reported
CAS Number: 7697-37-2 Quantity Released: .125
Environmental Contamination: Other Property Use: Mercantile, Business
Incident Date: 25-OCT-90 Date Completed: 25-OCT-90
Time Completed : 1100
Physical State Stored : Liquid
Physical State Released : Liquid
Release Unit : Gallons
Container Description : 2
Container Type : 04
Container Material : Glass , Pottery and Clay
Level Of Container : 10
Container Capacity : .125
Container Capacity Units (code) : 2
Extent Of Release (code) : 1
Agency Id Number : 56712
Agency Incident Number : 90-110
OES Incident Number : 9099645
Time Notified : 1000
Surrounding Area : 600
Estimated Temperature : 76
Property Management : P
More Than Two Substances Involved? : Not reported

Map ID Direction Distance Distance (ft.) Elevation	Site	MAP FINDINGS	Database(s)	EDR ID Number EPA ID Number

(Continued) **S100221376**

CHMIRS:

OES Control Number:	9099356	DOT ID:	Not reported
DOT Hazard Class:	Not Reported		
Chemical Name:	ACID, SULFURIC		
Extent of Release:	Not reported		
CAS Number:	Not reported	Quantity Released:	.5
Environmental Contamination:	Other	Property Use:	Mercantile, Business
Incident Date:	17-JUL-90	Date Completed:	17-JUL-90

Time Completed :	1330
Physical State Stored :	Liquid
Physical State Released :	Liquid
Release Unit :	Gallons
Container Description :	1
Container Type :	19
Container Material :	Other
Level Of Container :	Ground Level
Container Capacity :	0
Container Capacity Units (code) :	Not reported
Extent Of Release (code) :	5
Agency Id Number :	56712
Agency Incident Number :	90072
OES Incident Number :	9099356
Time Notified :	1230
Surrounding Area :	500
Estimated Temperature :	75
Property Management :	P
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	0
Others Number Of Decontaminated :	0
Others Number Of Injuries :	0
Others Number Of Fatalities :	0
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	GREGORY R. SMITH
Report Date :	17-JUL-90
Comments :	Yes
Facility Telephone Number :	805 654-2813

43 **North** **1/2-1** **4861 ft.** **Higher**	**JIM'S TEXACO** **3025 SANTA CLARA AVE** **OXNARD, CA 93030**	**LUST** **Cortese**	**S101305761** **N/A**

State LUST:

Cross Street: Not reported

JIM'S TEXACO (Continued) S101305761

Qty Leaked: Not reported
Case Number C-92031
Reg Board: Los Angeles Region
Chemical: Diesel
Lead Agency: Local Agency
Local Agency : 56000
Case Type: Soil only
Status: Pollution Assesment Report Completed
County: Ventura
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Review Date: 8/17/1992 Confirm Leak: 8/17/1992
Workplan: 1/5/1994 Prelim Assess: 1/5/1994
Pollution Char: Not reported Remed Plan: Not reported
Remed Action: Not reported Monitoring: Not reported
Close Date: Not reported
Release Date: 8/17/1992
Cleanup Fund Id : Not reported
Discover Date : 8/17/1992
Enforcement Dt : 8/17/1992
Enf Type: Not reported
Enter Date : Not reported
Funding: Federal Funds
Staff Initials: UNK
How Discovered: Not reported
How Stopped: Not reported
Interim : Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : Not reported
Max MTBE GW : Not reported
MTBE Tested: Not Required to be Tested.
Priority: Not reported
Local Case # : 92031
Beneficial: Not reported
Staff : JH
GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Oversight Program UST
Oversight Prgm : LOP
Review Date : Not reported
Stop Date : Not reported
Work Suspended :Not reported
Responsible PartyJIM'S TEXACO
RP Address: Not reported
Global Id: T0611100817
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 0
Water System Name: NYELAND ACRES MUTUAL WATER CO
Well Name: WELL 04
Distance To Lust: 1307.5798299509474468289364111
Waste Discharge Global ID: W0611102111

JIM'S TEXACO (Continued) **S101305761**

Waste Disch Assigned Name: 02N/22W-25L05 S

LUST Region 4:
Report Date: 8/17/1992
Lead Agency: Local Agency
Local Agency: 56000
Case Number: C-92031
Substance: Diesel
Case Type: Soil
Status: Pollution Assesment Report Completed
Region: 4
Staff: Not reported

LUST Region VN:
Facility ID: 92031
Status: Active

CORTESE:
Reg Id: C-92031
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

K44
SW
> 1
5411 ft.
Lower

TRI - COUNTY SHEET METAL
538 MAULHARDT AVE.
OXNARD, CA 93030

UST U001579886
HIST UST N/A
Cortese

Site 1 of 3 in cluster K

CORTESE:
Reg Id: C-87121
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

UST HIST:
Facility ID: 42999
Tank Num: 1
Tank Capacity: 1000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Leak Detection: Stock Inventor
Contact Name: THOMAS D. HARVEY
Total Tanks: 1
Facility Type: 2
Container Num: 1
Year Installed: 1980
Tank Construction: 10 gauge
Telephone: (805) 485-6116
Region: STATE
Other Type: SHEET METAL & A/C CO

UST Ventura County Active & Inactive:
Facility ID: D 347
Facility Status: INACTIVE
Box No: UGTCLO 03
Region: Ventura County

K45
SSW
> 1
5577 ft.
Lower

MISSION LINEN
505 MAULHARDT AVE
OXNARD, CA 93030

LUST 1001262532
Cortese N/A

Site 2 of 3 in cluster K

State LUST:
Cross Street: Not reported
Qty Leaked: Not reported
Case Number C-87052
Reg Board: Los Angeles Region

MISSION LINEN (Continued) **1001262532**

Chemical: Gasoline
Lead Agency: Local Agency
Local Agency : 56000
Case Type: Soil only
Status: Signed off, remedial action completed or deemed unnecessary
County: Ventura
Review Date: 7/1/1988 Confirm Leak: 7/1/1988
Workplan: 1/6/1992 Prelim Assess: 1/6/1992
Pollution Char: 1/6/1992 Remed Plan: 1/6/1992
Remed Action: 1/6/1992 Monitoring: 1/6/1992
Close Date: 8/7/1995
Release Date: 5/20/1987
Cleanup Fund Id : Not reported
Discover Date : 5/20/1987
Enforcement Dt : 5/20/1987
Enf Type: Not reported
Enter Date : Not reported
Funding: Federal Funds
Staff Initials: UNK
How Discovered: Not reported
How Stopped: Not reported
Interim : Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : Not reported
Max MTBE GW : Not reported
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority: Not reported
Local Case # : 87052
Beneficial: Not reported
Staff : JH
GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Oversight Program UST
Oversight Prgm : LOP
Review Date : Not reported
Stop Date : Not reported
Work Suspended :Not reported
Responsible PartyMISSION INDUSTRIES
RP Address: Not reported
Global Id: T0611100196
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: WELL 01
Distance To Lust: 6113.2737076232825302116809151
Waste Discharge Global ID: W0611102105
Waste Disch Assigned Name: 02N/22W-25N03 S

LUST Region 4:
Report Date: 5/20/1987
Lead Agency: Local Agency
Local Agency: 56000

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

MISSION LINEN (Continued) 1001262532

Case Number: C-87052
Substance: Gasoline
Case Type: Soil
Status: Signed off, remedial action completed or deemed unnecessary
Region: 4
Staff: Not reported

LUST Region VN:
Facility ID: 87052
Status: Active

CORTESE:
Reg Id: C-87052
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

K46
SSW
> 1
5596 ft.
Lower

MAUL-GRAVES LEASING COMPA
500 MAULHARDT
OXNARD, CA 93030

Cortese **S102433105** **N/A**

Site 3 of 3 in cluster K

CORTESE:
Reg Id: C-96003
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

47
West
> 1
6392 ft.
Higher

COASTLINE EQUIPMENT
1930 LOCKWOOD ST
OXNARD, CA 93030

LUST **HAZNET** **Cortese** **S102523173** **N/A**

State LUST:
Cross Street: Not reported
Qty Leaked: Not reported
Case Number C-97015
Reg Board: Los Angeles Region
Chemical: Waste Oil
Lead Agency: Local Agency
Local Agency : 56000
Case Type: Soil only
Status: Signed off, remedial action completed or deemed unnecessary
County: Ventura
Review Date: 4/9/1997 Confirm Leak: 4/9/1997
Workplan: 6/9/1997 Prelim Assess: 6/9/1997
Pollution Char: Not reported Remed Plan: Not reported
Remed Action: Not reported Monitoring: Not reported
Close Date: 7/7/1997
Release Date: 4/9/1997
Cleanup Fund Id : Not reported
Discover Date : 4/9/1997
Enforcement Dt : Not reported
Enf Type: Not reported
Enter Date : Not reported
Funding: Federal Funds
Staff Initials: UNK
How Discovered: Not reported
How Stopped: Not reported

COASTLINE EQUIPMENT (Continued) **S102523173**

Interim : Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : Not reported
Max MTBE GW : Not reported
MTBE Tested: Not Required to be Tested.
Priority: Not reported
Local Case # : 97015
Beneficial: Not reported
Staff : JH
GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Oversight Program UST
Oversight Prgm : LOP
Review Date : Not reported
Stop Date : Not reported
Work Suspended :Not reported
Responsible PartyBRAGG INVESTMENTS
RP Address: Not reported
Global Id: T0611101134
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 0
Water System Name: CITY OF OXNARD WATER DEPT
Well Name: WELL 19 (1985) - INACTIVE
Distance To Lust: 1671.6886069995548920206792392
Waste Discharge Global ID: W0611110007
Waste Disch Assigned Name: 02N/22W-35C03 S

LUST Region 4:
Report Date: 4/9/1997
Lead Agency: Local Agency
Local Agency: 56000
Case Number: C-97015
Substance: Waste Oil
Case Type: Soil
Status: Signed off, remedial action completed or deemed unnecessary
Region: 4
Staff: Not reported

LUST Region VN:
Facility ID: 97015
Status: Active

HAZNET:
Gepaid: CAD981976558
Tepaid: CAL000113451
Gen County: Ventura
Tsd County: Los Angeles
Tons: .5629
Category: Unspecified organic liquid mixture
Disposal Method: Transfer Station
Contact: BRAGG INVESTMENT CO INC
Telephone: (310) 272-7400
Mailing Address: 6242 N PARAMOUNT BLVD

COASTLINE EQUIPMENT (Continued) **S102523173**

	LONG BEACH, CA 90805 - 3714
County	Ventura
Gepaid:	CAD981976558
Tepaid:	CAL000113451
Gen County:	Ventura
Tsd County:	Los Angeles
Tons:	.3336
Category:	Unspecified organic liquid mixture
Disposal Method:	Not reported
Contact:	BRAGG INVESTMENT CO INC
Telephone:	(310) 272-7400
Mailing Address:	6242 N PARAMOUNT BLVD
	LONG BEACH, CA 90805 - 3714
County	Ventura
Gepaid:	CAD981976558
Tepaid:	CAD980883177
Gen County:	Ventura
Tsd County:	Kern
Tons:	1.0216
Category:	Unspecified oil-containing waste
Disposal Method:	Recycler
Contact:	BRAGG INVESTMENT CO INC
Telephone:	(310) 272-7400
Mailing Address:	6242 N PARAMOUNT BLVD
	LONG BEACH, CA 90805 - 3714
County	Ventura
Gepaid:	CAD981976558
Tepaid:	CAL000113451
Gen County:	Ventura
Tsd County:	Los Angeles
Tons:	.5004
Category:	Unspecified organic liquid mixture
Disposal Method:	Transfer Station
Contact:	BRAGG INVESTMENT CO INC
Telephone:	(310) 272-7400
Mailing Address:	6242 N PARAMOUNT BLVD
	LONG BEACH, CA 90805 - 3714
County	Ventura
Gepaid:	CAD981976558
Tepaid:	CAT080013352
Gen County:	Ventura
Tsd County:	Los Angeles
Tons:	1.0216
Category:	Aqueous solution with 10% or more total organic residues
Disposal Method:	Recycler
Contact:	BRAGG INVESTMENT CO INC
Telephone:	(310) 272-7400
Mailing Address:	6242 N PARAMOUNT BLVD
	LONG BEACH, CA 90805 - 3714
County	Ventura

The CA HAZNET database contains 5 additional records for this site.
Please contact your EDR Account Executive for more information.

CORTESE:

Reg Id: C-97015

LOS ANGELES COUNTY:

List of Solid Waste Facilities
Source: La County Department of Public Works
Telephone: 818-458-5185

Date of Government Version: 11/09/99
Database Release Frequency: Varies
Date of Last EDR Contact: 05/20/02
Date of Next Scheduled EDR Contact: 08/19/02

City of El Segundo Underground Storage Tank
Source: City of El Segundo Fire Department
Telephone: 310-607-2239

Date of Government Version: 03/01/02
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 05/20/02
Date of Next Scheduled EDR Contact: 08/19/02

City of Long Beach Underground Storage Tank
Source: City of Long Beach Fire Department
Telephone: 562-570-2543

Date of Government Version: 10/01/99
Database Release Frequency: Annually
Date of Last EDR Contact: 05/30/02
Date of Next Scheduled EDR Contact: 08/26/02

City of Torrance Underground Storage Tank
Source: City of Torrance Fire Department
Telephone: 310-618-2973

Date of Government Version: 04/01/02
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 05/20/02
Date of Next Scheduled EDR Contact: 08/19/02

City of Los Angeles Landfills
Source: Engineering & Construction Division
Telephone: 213-473-7869

Date of Government Version: 03/01/02
Database Release Frequency: Varies
Date of Last EDR Contact: 06/19/02
Date of Next Scheduled EDR Contact: 09/16/02

HMS: Street Number List
Source: Department of Public Works
Telephone: 626-458-3517
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 01/31/02
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 05/20/02
Date of Next Scheduled EDR Contact: 08/19/02

Site Mitigation List
Source: Community Health Services
Telephone: 323-890-7806
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 02/28/02
Database Release Frequency: Annually
Date of Last EDR Contact: 05/20/02
Date of Next Scheduled EDR Contact: 08/19/02

San Gabriel Valley Areas of Concern
Source: EPA Region 9
Telephone: 415-744-2407
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 12/31/98
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 06/29/99
Date of Next Scheduled EDR Contact: N/A

MARIN COUNTY:

Underground Storage Tank Sites
Source: Public Works Department Waste Management
Telephone: 415-499-6647
Currently permitted USTs in Marin County.

Date of Government Version: 03/06/02
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/06/02
Date of Next Scheduled EDR Contact: 08/05/02

NAPA COUNTY:

Sites With Reported Contamination
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269

Date of Government Version: 04/01/02
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/01/02
Date of Next Scheduled EDR Contact: 07/01/02

Closed and Operating Underground Storage Tank Sites
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269

Date of Government Version: 04/01/02
Database Release Frequency: Annually

Date of Last EDR Contact: 04/01/02
Date of Next Scheduled EDR Contact: 07/01/02

ORANGE COUNTY:

List of Underground Storage Tank Cleanups
Source: Health Care Agency
Telephone: 714-834-3446
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 11/27/01
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/10/02
Date of Next Scheduled EDR Contact: 09/09/02

List of Underground Storage Tank Facilities
Source: Health Care Agency
Telephone: 714-834-3446
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/27/01
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/10/02
Date of Next Scheduled EDR Contact: 09/09/02

List of Industrial Site Cleanups
Source: Health Care Agency
Telephone: 714-834-3446
Petroleum and non-petroleum spills.

Date of Government Version: 10/24/00
Database Release Frequency: Annually

Date of Last EDR Contact: 06/10/02
Date of Next Scheduled EDR Contact: 09/09/02

PLACER COUNTY:

Master List of Facilities
Source: Placer County Health and Human Services
Telephone: 530-889-7312
List includes aboveground tanks, underground tanks and cleanup sites.

Map ID
Direction
Distance
Distance (ft.)
Elevation | Site | Database(s) | EDR ID Number / EPA ID Number

MAP FINDINGS

COASTLINE EQUIPMENT (Continued) S102523173

Region: CORTESE
Reg By: Leaking Underground Storage Tanks

48
SSW
> 1
6480 ft.
Lower

DAVE WALSH CO., INC
278 RICE AVE
OXNARD, CA 93030

LUST **S102428654**
HAZNET **N/A**
Cortese

State LUST:

Cross Street: ELEVAR ST
Qty Leaked: Not reported
Case Number 930300416
Reg Board: Los Angeles Region
Chemical: Gasoline
Lead Agency: Regional Board
Local Agency : 56000
Case Type: Other ground water affected
Status: Signed off, remedial action completed or deemed unnecessary
County: Ventura
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site

Review Date:	Not reported	Confirm Leak:	Not reported
Workplan:	2/27/1996	Prelim Assess:	2/27/1996
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	Not reported	Monitoring:	Not reported

Close Date: 11/12/1997
Release Date: 9/23/1991
Cleanup Fund Id : Not reported
Discover Date : 1/1/1923
Enforcement Dt : Not reported
Enf Type: Not reported
Enter Date : 5/13/1996
Funding: Not reported
Staff Initials: UNK
How Discovered: Other Means
How Stopped: Repair Piping
Interim : Yes
Leak Cause: Overfill
Leak Source: Other Source
MTBE Date : 1/1/1965
Max MTBE GW : 0
MTBE Tested: MTBE Detected. Site tested for MTBE & MTBE detected
Priority: Not reported
Local Case # : Not reported
Beneficial: Not reported
Staff : DK
GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: RB Lead Underground Storage Tank
Oversight Prgm : UST
Review Date : 12/24/1997
Stop Date : 12/15/1995
Work Suspended :Not reported
Responsible PartyDAVE WALSH CO., INC.
RP Address: 2640 STURGIS RD, OXNARD CA 93030

DAVE WALSH CO., INC (Continued) **S102428654**

Global Id: T0611100063
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 1
Mtbe Fuel: 1
Water System Name: HAILWOOD INC WATER SYSTEM NO 9
Well Name: WELL 09
Distance To Lust: 4612.4066074452165954737372257
Waste Discharge Global ID: W0611102510
Waste Disch Assigned Name: 01N/21W-06L05 S

LUST Region 4:
Report Date: 9/23/1991
Lead Agency: Regional Board
Local Agency: 56000
Case Number: 930300416
Substance: Gasoline
Case Type: Groundwater
Status: Signed off, remedial action completed or deemed unnecessary
Region: 4
Staff: DK

HAZNET:
Gepaid: CAC000648664
Tepaid: CAT080013352
Gen County: Ventura
Tsd County: Los Angeles
Tons: 3.2526
Category: Unspecified oil-containing waste
Disposal Method: Recycler
Contact: DAVE WALSH
Telephone: (000) 000-0000
Mailing Address: 2640 STURGIS RD
OXNARD, CA 93030
County Ventura

Gepaid: CAC000648664
Tepaid: CAT080013352
Gen County: Ventura
Tsd County: Los Angeles
Tons: 1.7097
Category: Unspecified oil-containing waste
Disposal Method: Recycler
Contact: DAVE WALSH
Telephone: (000) 000-0000
Mailing Address: 2640 STURGIS RD
OXNARD, CA 93030
County Ventura

Gepaid: CAC000648664
Tepaid: CAD980883177
Gen County: Ventura
Tsd County: Kern
Tons: 2.1267
Category: Unspecified oil-containing waste
Disposal Method: Recycler
Contact: DAVE WALSH
Telephone: (000) 000-0000
Mailing Address: 2640 STURGIS RD

Map ID Direction Distance Distance (ft.) Elevation	Site	MAP FINDINGS	Database(s)	EDR ID Number EPA ID Number

DAVE WALSH CO., INC (Continued) **S102428654**

OXNARD, CA 93030
County Ventura

Gepaid: CAC000648664
Tepaid: CAT080013352
Gen County: Ventura
Tsd County: Los Angeles
Tons: .8340
Category: Unspecified oil-containing waste
Disposal Method: Recycler
Contact: DAVE WALSH
Telephone: (000) 000-0000
Mailing Address: 2640 STURGIS RD
OXNARD, CA 93030
County Ventura

CORTESE:
Reg Id: 930300416
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

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49 **WNW** **> 1** **6587 ft.** **Higher**	**GTE-EL RIO C.O.** **1505 VENTURA BL** **OXNARD, CA 91708**	**LUST** **Cortese**	**S102859921** **N/A**

State LUST:
Cross Street: Not reported
Qty Leaked: Not reported
Case Number C-96007
Reg Board: Los Angeles Region
Chemical: Diesel
Lead Agency: Local Agency
Local Agency : 56000
Case Type: Soil only
Status: Signed off, remedial action completed or deemed unnecessary
County: Ventura
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site

Review Date:	3/13/1996	Confirm Leak:	3/13/1996
Workplan:	10/9/1996	Prelim Assess:	10/9/1996
Pollution Char:	10/9/1996	Remed Plan:	10/9/1996
Remed Action:	Not reported	Monitoring:	Not reported

Close Date: 10/10/1996
Release Date: 3/13/1996
Cleanup Fund Id : Not reported
Discover Date : 3/13/1996
Enforcement Dt : 4/16/1996
Enf Type: Not reported
Enter Date : Not reported
Funding: Federal Funds
Staff Initials: UNK
How Discovered: Not reported
How Stopped: Not reported
Interim : Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : Not reported
Max MTBE GW : Not reported

GTE-EL RIO C.O. (Continued) **S102859921**

MTBE Tested: Not Required to be Tested.
Priority: Not reported
Local Case # : 96007
Beneficial: Not reported
Staff : JH
GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Oversight Program UST
Oversight Prgm : LOP
Review Date : Not reported
Stop Date : Not reported
Work Suspended :Not reported
Responsible PartyGTE CALIFORNIA INC
RP Address: Not reported
Global Id: T0611101082
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 0
Water System Name: ROYAL DUKE MOBILE ESTATE
Well Name: WELL 01
Distance To Lust: 1609.2205246440729139393892486
Waste Discharge Global ID: W0611102113
Waste Disch Assigned Name: 02N/22W-26M01 S

LUST Region 4:
Report Date: 3/13/1996
Lead Agency: Local Agency
Local Agency: 56000
Case Number: C-96007
Substance: Diesel
Case Type: Soil
Status: Signed off, remedial action completed or deemed unnecessary
Region: 4
Staff: Not reported

LUST Region VN:
Facility ID: 96007
Status: Active

CORTESE:
Reg Id: C-88138
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

Reg Id: C-96007
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CITY OF OXNARD	S100779175	SANTA CLARA LANDFILL	BETWEEN VENTURA ROAD AND VICTORIA AVE PARCEL# 17	93030	SWF/LF
CITY OF OXNARD	S101611253	OXNARD DUMP	FORMALLY PATTERSON RANCH SUBDIVISION NORTH WEST	93030	SWF/LF
CITY OF OXNARD	S104025126	BAILARD LANDFILL	OLD BAILARD ROBINSON LANDFILL LOCATED DIRECTLY BE	93030	SWF/LF
OXNARD	1003878781	WALKER'S VENTURA SALVAGE CITY DUMP	4400 BLOCK VINEYARD AVE	93030	CERC-NFRAP
OXNARD	A100184555	SATICOY BERRY FARMS	400 CENTAL AVE	93030	AST
OXNARD	U003167596	WILMA PACIFIC, INC.	COLONIA & RICE ROAD		UST
OXNARD	1003878951	DUNES SUBDIVISION	DUNES ST	93030	CERC-NFRAP
OXNARD	S100779207	ARNOLD ROAD DUMP	END OF ARNOLD ROAD / THE PACIFIC OCEAN		SWF/LF
OXNARD	S103972464	JOHN MCGRATH FAMILY TRUSTS	1732 GONZALES	93030	HAZNET
OXNARD	S104580650	PACIFIC COAST DENTAL GROUP	1100 GONZALES RD, #210	93030	HAZNET
OXNARD	U001579857	SCHOLLE RANCH	GONZALES RD	93030	HIST UST
OXNARD	S103679792	COUNTY OF VENTURA PUBLIC WORKS	S HWY 101/ VENTURA RD	93030	HAZNET
OXNARD	S105273858	CERTIFIED FREIGHT LINES	965 MAULHARDT AVE.	93030	LUST
OXNARD	S105085770	YOLANDA PLACENTIA	3615 NYLAND AVE STE B	93030	HAZNET
OXNARD	S104549192	RIO ROSALES ELEM. SCH./PLAYGROUND (PROP)	NW OF JACINTO / KOHALA STREETS	93030	Cal-Sites
OXNARD	S100779164	OXNARD 1962	WEST OF PERKINS RD.		SWF/LF
OXNARD	S101482876	DUNES SUBDIVISION SITE - OXNARD	OXNARD DUNES SUBDIVISION	93030	Cal-Sites
OXNARD	S103340486	OXNARD DUMP/MANDALAY BAY	NW PART OF THE MANDALAY BAY DEVELOPM		SWF/LF
OXNARD	U002169380	WESTERN BERRY FARMS	1234 RICE ROAD		UST
OXNARD	S105093763	FUKUTOMI FARMS INC	2190 W RICE RD	93030	HAZNET
OXNARD	S103878555	CITY OF OXNARD-COMMERCIAL DEVELOPMENT	RICE AVENUE	93030	CA SLIC
OXNARD	S103878593	SHELL - GORDON DONLON LEASE	RICE AVENUE	93030	CA SLIC
OXNARD	U001579906	WESTCO RANCH	1234 RICE RD.	93030	HIST UST
OXNARD	U002169381	SAMMIS CO.	RICE ROAD		UST
OXNARD	1003878501	SANTA CLARA CHEM CO	521 N RICE RD	93030	CERC-NFRAP
OXNARD	S102803923	MCGINNIS-SAMMIS ASSOCIATES	STURGIS RD. AT DEL NORTE RD.	93030	HAZNET
OXNARD	S100779149	WAGON WHEEL COUNTY 1968 (CIA #23)	UNDERNEATH AND PART OF THE SANTA CLAR LANDFILL	93030	SWF/LF
OXNARD	S103878801	FREEMONT CLEANERS	690 VENTURA ROAD	93030	CA SLIC
OXNARD	U003783491	WOOLEY MOBIL	10505 VENTURA RD.	93030	UST
OXNARD	S102798301	CHARLES COMPANY	VENTURA ROAD /		HAZNET
OXNARD	U003803009	PACIFIC ENERGY	2501 N VENTURA RD		UST
OXNARD	S100539068	SANTA CLARA/MAXWELL SWIFT/CONNOLLY SITES	VENTURA RD.	93030	Cal-Sites
OXNARD	S103684257	OXNARD MOBILE CARWASH	655 VENTURA RD	93030	LUST
OXNARD	S103684258	GROG & GROCERY MARKET	1050 VENTURA RD	93030	LUST
OXNARD	S105273862	ABANDONED	550 N. VENTURA RD.	93030	LUST
OXNARD	S105273863	WIGGINS LIFT CO	567 VENTURA BLVD	93030	LUST
OXNARD	1003878694	BAILARD LDFL	VICTORIA RD XING @SN CLARA RIV	93030	CERC-NFRAP
VENTURA	U001579901	VENTURA RIVER PLANT	MAIN ST. WEST OF VENTURA RIVER	93030	HIST UST
VENTURA	U001579745	FTY OIL STN. #208	VENTURA	93030	HIST UST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM STANDARD RECORDS

NPL: National Priority List
Source: EPA
Telephone: N/A
National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/22/02
Date Made Active at EDR: 06/21/02
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 05/06/02
Elapsed ASTM days: 46
Date of Last EDR Contact: 05/06/02

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 6
Telephone: 214-655-6659

EPA Region 8
Telephone: 303-312-6774

Proposed NPL: Proposed National Priority List Sites
Source: EPA
Telephone: N/A

Date of Government Version: 02/26/02
Date Made Active at EDR: 06/21/02
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 05/06/02
Elapsed ASTM days: 46
Date of Last EDR Contact: 05/06/02

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA
Telephone: 703-413-0223
CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/12/02
Date Made Active at EDR: 06/03/02
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 03/25/02
Elapsed ASTM days: 70
Date of Last EDR Contact: 03/25/02

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned
Source: EPA
Telephone: 703-413-0223
As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 02/14/02
Date Made Active at EDR: 06/03/02
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/25/02
Elapsed ASTM days: 70
Date of Last EDR Contact: 03/25/02

CORRACTS: Corrective Action Report
Source: EPA
Telephone: 800-424-9346
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 11/14/01
Date Made Active at EDR: 01/14/02
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 11/14/01
Elapsed ASTM days: 61
Date of Last EDR Contact: 06/10/02

RCRIS: Resource Conservation and Recovery Information System
Source: EPA/NTIS
Telephone: 800-424-9346
Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Date of Government Version: 04/01/02
Date Made Active at EDR: 06/21/02
Database Release Frequency: Varies

Date of Data Arrival at EDR: 05/20/02
Elapsed ASTM days: 32
Date of Last EDR Contact: 03/04/02

ERNS: Emergency Response Notification System
Source: EPA/NTIS
Telephone: 202-260-2342
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/00
Date Made Active at EDR: 06/03/02
Database Release Frequency: Varies

Date of Data Arrival at EDR: 03/05/02
Elapsed ASTM days: 90
Date of Last EDR Contact: 04/29/02

FEDERAL ASTM SUPPLEMENTAL RECORDS

BRS: Biennial Reporting System
Source: EPA/NTIS
Telephone: 800-424-9346
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/99
Database Release Frequency: Biennially

Date of Last EDR Contact: 06/17/02
Date of Next Scheduled EDR Contact: 09/16/02

CONSENT: Superfund (CERCLA) Consent Decrees
Source: EPA Regional Offices
Telephone: Varies
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: N/A
Database Release Frequency: Varies

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

ROD: Records Of Decision
Source: EPA
Telephone: 703-416-0223
Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 09/30/01
Database Release Frequency: Annually

Date of Last EDR Contact: 04/09/02
Date of Next Scheduled EDR Contact: 07/08/02

DELISTED NPL: National Priority List Deletions
Source: EPA
Telephone: N/A
The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/22/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/06/02
Date of Next Scheduled EDR Contact: 08/05/02

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report
Source: EPA
Telephone: N/A
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 03/21/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/08/02
Date of Next Scheduled EDR Contact: 07/08/02

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/01
Database Release Frequency: Annually

Date of Last EDR Contact: 04/22/02
Date of Next Scheduled EDR Contact: 07/22/02

MLTS: Material Licensing Tracking System
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/12/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/08/02
Date of Next Scheduled EDR Contact: 07/08/02

MINES: Mines Master Index File
Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959

Date of Government Version: 12/14/01
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/01/02
Date of Next Scheduled EDR Contact: 07/01/02

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 205-564-4267
Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 05/28/02
Date of Next Scheduled EDR Contact: 08/26/02

PADS: PCB Activity Database System
Source: EPA
Telephone: 202-564-3887
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/01/02
Database Release Frequency: Annually
Date of Last EDR Contact: 05/14/02
Date of Next Scheduled EDR Contact: 08/12/02

RAATS: RCRA Administrative Action Tracking System
Source: EPA
Telephone: 202-564-4104
RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 06/10/02
Date of Next Scheduled EDR Contact: 09/09/02

TRIS: Toxic Chemical Release Inventory System
Source: EPA
Telephone: 202-260-1531
Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/99
Database Release Frequency: Annually
Date of Last EDR Contact: 03/25/02
Date of Next Scheduled EDR Contact: 06/24/02

TSCA: Toxic Substances Control Act
Source: EPA
Telephone: 202-260-5521
Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/98
Database Release Frequency: Every 4 Years
Date of Last EDR Contact: 06/10/02
Date of Next Scheduled EDR Contact: 09/09/02

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA
Telephone: 202-564-2501

Date of Government Version: 01/14/02
Database Release Frequency: Quarterly
Date of Last EDR Contact: 03/25/02
Date of Next Scheduled EDR Contact: 06/24/02

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-564-2501
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/25/02
Database Release Frequency: Quarterly
Date of Last EDR Contact: 03/25/02
Date of Next Scheduled EDR Contact: 06/24/02

STATE OF CALIFORNIA ASTM STANDARD RECORDS

AWP: Annual Workplan Sites
Source: California Environmental Protection Agency
Telephone: 916-323-3400
Known Hazardous Waste Sites. California DTSC's Annual Workplan (AWP), formerly BEP, identifies known hazardous substance sites targeted for cleanup.

Date of Government Version: 11/08/00
Date Made Active at EDR: 03/02/01
Database Release Frequency: Annually
Date of Data Arrival at EDR: 01/31/01
Elapsed ASTM days: 30
Date of Last EDR Contact: 04/12/02

CAL-SITES: Calsites Database
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database.

Date of Government Version: 10/01/00
Date Made Active at EDR: 11/22/00
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 10/30/00
Elapsed ASTM days: 23
Date of Last EDR Contact: 04/12/02

CHMIRS: California Hazardous Material Incident Report System
Source: Office of Emergency Services
Telephone: 916-845-8400
California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/94
Date Made Active at EDR: 04/24/95
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 03/13/95
Elapsed ASTM days: 42
Date of Last EDR Contact: 05/26/02

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-9100
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 04/01/01
Date Made Active at EDR: 07/26/01
Database Release Frequency: Varies
Date of Data Arrival at EDR: 05/29/01
Elapsed ASTM days: 58
Date of Last EDR Contact: 04/30/02

NOTIFY 65: Proposition 65 Records
Source: State Water Resources Control Board
Telephone: 916-445-3846
Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/93
Date Made Active at EDR: 11/19/93
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 11/01/93
Elapsed ASTM days: 18
Date of Last EDR Contact: 04/22/02

TOXIC PITS: Toxic Pits Cleanup Act Sites
Source: State Water Resources Control Board
Telephone: 916-227-4364
Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/95
Date Made Active at EDR: 09/26/95
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 08/30/95
Elapsed ASTM days: 27
Date of Last EDR Contact: 05/06/02

SWF/LF (SWIS): Solid Waste Information System
Source: Integrated Waste Management Board
Telephone: 916-341-6320
Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 03/15/02
Date Made Active at EDR: 04/16/02
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 03/18/02
Elapsed ASTM days: 29
Date of Last EDR Contact: 06/17/02

WMUDS/SWAT: Waste Management Unit Database
Source: State Water Resources Control Board
Telephone: 916-227-4448
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/00
Date Made Active at EDR: 05/10/00
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 04/10/00
Elapsed ASTM days: 30
Date of Last EDR Contact: 06/10/02

LUST: Leaking Underground Storage Tank Information System
Source: State Water Resources Control Board
Telephone: 916-341-5740
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 01/17/02
Date Made Active at EDR: 02/12/02
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 01/21/02
Elapsed ASTM days: 22
Date of Last EDR Contact: 04/12/02

CA BOND EXP. PLAN: Bond Expenditure Plan
Source: Department of Health Services
Telephone: 916-255-2118
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/89
Date Made Active at EDR: 08/02/94
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 07/27/94
Elapsed ASTM days: 6
Date of Last EDR Contact: 05/31/94

CA UST:

UST: Active UST Facilities
Source: SWRCB
Telephone: 916-341-5700
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 01/17/02
Date Made Active at EDR: 02/12/02
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 01/21/02
Elapsed ASTM days: 22
Date of Last EDR Contact: 04/16/02

CA FID UST: Facility Inventory Database
Source: California Environmental Protection Agency
Telephone: 916-445-6532
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/94
Date Made Active at EDR: 09/29/95
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 09/05/95
Elapsed ASTM days: 24
Date of Last EDR Contact: 12/28/98

HIST UST: Hazardous Substance Storage Container Database
Source: State Water Resources Control Board
Telephone: 916-341-5700
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/90
Date Made Active at EDR: 02/12/91
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 01/25/91
Elapsed ASTM days: 18
Date of Last EDR Contact: 07/26/01

STATE OF CALIFORNIA ASTM SUPPLEMENTAL RECORDS

AST: Aboveground Petroleum Storage Tank Facilities
Source: State Water Resources Control Board
Telephone: 916-227-4382
Registered Aboveground Storage Tanks.

Date of Government Version: 05/21/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/06/02
Date of Next Scheduled EDR Contact: 08/05/02

CLEANERS: Cleaner Facilities
Source: Department of Toxic Substance Control
Telephone: 916-225-0873
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 03/18/02
Database Release Frequency: Annually

Date of Last EDR Contact: 04/08/02
Date of Next Scheduled EDR Contact: 07/08/02

CA WDS: Waste Discharge System
Source: State Water Resources Control Board
Telephone: 916-657-1571
Sites which have been issued waste discharge requirements.

Date of Government Version: 03/18/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/19/02
Date of Next Scheduled EDR Contact: 06/24/02

DEED: List of Deed Restrictions
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes.

Date of Government Version: 04/26/02
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/11/02
Date of Next Scheduled EDR Contact: 07/08/02

HAZNET: Hazardous Waste Information System
Source: California Environmental Protection Agency
Telephone: 916-255-1136
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/00
Database Release Frequency: Annually

Date of Last EDR Contact: 05/16/02
Date of Next Scheduled EDR Contact: 08/12/02

LOCAL RECORDS

ALAMEDA COUNTY:

Local Oversight Program Listing of UGT Cleanup Sites
Source: Alameda County Environmental Health Services
Telephone: 510-567-6700

Date of Government Version: 07/01/01
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/01/02
Date of Next Scheduled EDR Contact: 07/29/02

Underground Tanks
Source: Alameda County Environmental Health Services
Telephone: 510-567-6700

Date of Government Version: 12/01/00
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/01/02
Date of Next Scheduled EDR Contact: 07/29/02

CONTRA COSTA COUNTY:

Site List
Source: Contra Costa Health Services Department
Telephone: 925-646-2286
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 09/01/00
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 06/03/02
Date of Next Scheduled EDR Contact: 09/02/02

FRESNO COUNTY:

CUPA Resources List
Source: Dept. of Community Health
Telephone: 559-445-3271
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 04/01/02
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/30/02
Date of Next Scheduled EDR Contact: 08/12/02

KERN COUNTY:

Underground Storage Tank Sites & Tanks Listing
Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Kern County Sites and Tanks Listing.

Date of Government Version: 03/01/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/03/02
Date of Next Scheduled EDR Contact: 09/02/02

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

TARGET PROPERTY INFORMATION

ADDRESS

RICE AVE/DEL NORTE BOULEVARD
OXNARD, CA 93030

COORDINATES

Latitude (North):	34.219200 - 34˚ 13' 9.1"
Longitude (West):	119.134500 - 119˚ 8' 4.2"
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	303370.0
UTM Y (Meters):	3788326.0

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	2434119-B2 OXNARD, CA
Source:	USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

FEDERAL ASTM STANDARD

NPL........................... National Priority List
Proposed NPL.............. Proposed National Priority List Sites
CERCLIS...................... Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP................ CERCLIS No Further Remedial Action Planned
CORRACTS.................. Corrective Action Report
RCRIS-TSD................... Resource Conservation and Recovery Information System
RCRIS-LQG................... Resource Conservation and Recovery Information System
ERNS............................ Emergency Response Notification System

STATE ASTM STANDARD

AWP............................. Annual Workplan Sites
Toxic Pits...................... Toxic Pits Cleanup Act Sites
SWF/LF.......................... Solid Waste Information System
WMUDS/SWAT................ Waste Management Unit Database
CA BOND EXP. PLAN....... Bond Expenditure Plan

EXECUTIVE SUMMARY

FEDERAL ASTM SUPPLEMENTAL

CONSENT........................ Superfund (CERCLA) Consent Decrees
ROD................................ Records Of Decision
Delisted NPL.................... National Priority List Deletions
FINDS............................ Facility Index System/Facility Identification Initiative Program Summary Report
HMIRS............................ Hazardous Materials Information Reporting System
MLTS.............................. Material Licensing Tracking System
MINES............................ Mines Master Index File
NPL Liens........................ Federal Superfund Liens
PADS.............................. PCB Activity Database System
RAATS............................ RCRA Administrative Action Tracking System
TRIS................................ Toxic Chemical Release Inventory System
TSCA.............................. Toxic Substances Control Act
FTTS.............................. FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

STATE OR LOCAL ASTM SUPPLEMENTAL

AST................................. Aboveground Petroleum Storage Tank Facilities
CLEANERS...................... Cleaner Facilities
CA WDS.......................... Waste Discharge System
DEED.............................. List of Deed Restrictions
CA SLIC.......................... Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
VENTURA CO. BWT.......... Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
HAZNET.......................... Hazardous Waste Information System

EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas......................... Former Manufactured Gas (Coal Gas) Sites

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS 1 degree Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. EDR's definition of a site with an elevation equal to the target property includes a tolerance of +/- 10 feet. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property (by more than 10 feet). Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL ASTM STANDARD

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-SQG list, as provided by EDR, and dated 04/01/2002 has revealed that there are 3 RCRIS-SQG sites within approximately 0.5 miles of the target property.

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CHANNEL CITIES PUMPING CO	*2971 VENTURA BLVD*	*1/4 - 1/2 NNW*	*C5*	*8*
DEWEY PEST CONTROL	*2991 E VENTA BLVD*	*1/4 - 1/2 NE*	*B6*	*8*
QUINN CO	*801 DEL NORTE*	*1/4 - 1/2 ESE*	*25*	*21*

STATE ASTM STANDARD

CAL-SITES: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control.

A review of the Cal-Sites list, as provided by EDR, has revealed that there are 2 Cal-Sites sites within approximately 1.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
FACELLE CO INC	800 N RICE AVE	1/2 - 1 SW	34	35

Lower Elevation	Address	Dist / Dir	Map ID	Page
SANTA CLARA CHEMICAL COMPANY	*521 NORTH RICE ROAD*	*1/2 - 1 SSW*	*J41*	*43*

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 12/31/1994 has revealed that there are 4 CHMIRS sites within approximately 1.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
Not reported	2371 VENTURA BL.	1/2 - 1 WNW	29	27
Not reported	2201 EAST VENTURA BLVD.	1/2 - 1 WNW	H32	29
Not reported	700 MAULHARDT AVENUE	1/2 - 1 SW	I39	42

Lower Elevation	Address	Dist / Dir	Map ID	Page
Not reported	663 MAULHARDT	1/2 - 1 SW	I42	44

CORTESE: This database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release and all solid waste disposal facilities from which there is known migration. The source is the California Environmental Protection Agency/Office of Emergency Information.

A review of the Cortese list, as provided by EDR, has revealed that there are 22 Cortese sites within approximately 1.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
NYLAND ACRES TREATMENT PLANT	*3250 VENTURA BLVD S*	*1/8 - 1/4 N*	*A3*	*6*
LONG BEACH MORTGAGE	*2935 VENTURA BL*	*1/4 - 1/2 NNW*	*C8*	*10*
C.A.B. ENTERPRISES	2927 VENTURA BL	1/4 - 1/2 NNW	C9	10
GILBERT (GIBB) SAWTELLE	2701 VENTURA	1/4 - 1/2 NW	D15	14

Map ID Direction Distance Distance (ft.) Elevation	Site	MAP FINDINGS	Database(s)	EDR ID Number EPA ID Number

NYLAND ACRES TREATMENT PLANT (Continued) S101305777

Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : Not reported
Max MTBE GW : Not reported
MTBE Tested: Not Required to be Tested.
Priority: Not reported
Local Case # : Not reported
Beneficial: Not reported
Staff : JH
GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: Not reported
Operator : JIM MONTIJO
Oversight Prgm: Local Implementing Agency UST (includes non-LOP cases within LOP jurisdiction)
Oversight Prgm : LIA
Review Date : 12/11/1991
Stop Date : Not reported
Work Suspended :Not reported
Responsible PartyVENTURA REG. SANITATION DIST.
RP Address: Not reported
Global Id: T0611100066
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 0
Water System Name: EVERGREEN TRAILER PARK
Well Name: WELL 01
Distance To Lust: 3931.3056673690316329301965218
Waste Discharge Global ID: W0611102107
Waste Disch Assigned Name: 02N/22W-27M02 S

LUST Region 4:
Report Date: 4/16/1987
Lead Agency: Local Agency
Local Agency: 56000
Case Number: 930300534
Substance: Diesel
Case Type: Soil
Status: Leak being confirmed
Region: 4
Staff: Not reported

CORTESE:
Reg Id: 930300534
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

Reg Id: 871
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

B4 **NNE** **1/4-1/2** **1363 ft.** **Higher**	**NYELAND ACRES WASTEWATER** **3550 VENTURA BL** **OXNARD, CA** **Site 1 of 2 in cluster B**	**LUST**	**S104384624** **N/A**

MAP FINDINGS

Map ID Direction Distance Distance (ft.) Elevation	Site	Database(s)	EDR ID Number EPA ID Number

NYELAND ACRES WASTEWATER (Continued) — **S104384624**

LUST Region VN:
- Facility ID: 99068
- Status: Active

C5 **NNW** **1/4-1/2** **1448 ft.** **Higher**	**CHANNEL CITIES PUMPING CO** **2971 VENTURA BLVD** **OXNARD, CA 93030** **Site 1 of 7 in cluster C**	**RCRIS-SQG** **FINDS**	**1000317509** **CAT080024995**

RCRIS:
- Owner: CEMORE, JOSEPH AND LINDA
  (415) 555-1212
- EPA ID: CAT080024995
- Contact: ENVIRONMENTAL MANAGER
  (805) 487-3382
- Classification: Small Quantity Generator
- Used Oil Recyc: No
- TSDF Activities: Not reported
- Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
- Facility Registry System (FRS)
- Resource Conservation and Recovery Act Information system (RCRAINFO)

B6 **NE** **1/4-1/2** **1462 ft.** **Higher**	**DEWEY PEST CONTROL** **2991 E VENTA BLVD** **OXNARD, CA 93030** **Site 2 of 2 in cluster B**	**RCRIS-SQG** **FINDS**	**1000226186** **CAD981431661**

RCRIS:
- Owner: DEWEY SERVICES INC
  (415) 555-1212
- EPA ID: CAD981431661
- Contact: ENVIRONMENTAL MANAGER
  (213) 660-6804
- Classification: Small Quantity Generator
- Used Oil Recyc: No
- TSDF Activities: Not reported
- Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
- Facility Registry System (FRS)
- Resource Conservation and Recovery Act Information system (RCRAINFO)

C7 **NNW** **1/4-1/2** **1501 ft.** **Higher**	**LONG BEACH MORTGAGE** **2935 VENTURA BL** **OXNARD, CA 93030** **Site 2 of 7 in cluster C**	**UST** **LUST**	**U002169496** **N/A**

LONG BEACH MORTGAGE (Continued) U002169496

State LUST:
Cross Street: Not reported
Qty Leaked: Not reported
Case Number C-95085
Reg Board: Los Angeles Region
Chemical: Gasoline
Lead Agency: Local Agency
Local Agency : 56000
Case Type: Soil only
Status: Signed off, remedial action completed or deemed unnecessary
County: Ventura
Abate Method: Excavate and Treat - remove contaminated soil and treat (includes spreading or land farming)
Review Date: 3/13/1995 Confirm Leak: 3/13/1995
Workplan: 5/8/1995 Prelim Assess: 5/8/1995
Pollution Char: 5/8/1995 Remed Plan: 5/8/1995
Remed Action: 6/6/1996 Monitoring: 6/6/1996
Close Date: 11/22/1996
Release Date: 3/13/1995
Cleanup Fund Id : Not reported
Discover Date : 3/13/1995
Enforcement Dt : Not reported
Enf Type: Not reported
Enter Date : Not reported
Funding: Federal Funds
Staff Initials: UNK
How Discovered: Not reported
How Stopped: Not reported
Interim : Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : Not reported
Max MTBE GW : Not reported
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority: Not reported
Local Case # : 95085
Beneficial: Not reported
Staff : JH
GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Oversight Program UST
Oversight Prgm : LOP
Review Date : Not reported
Stop Date : Not reported
Work Suspended :Not reported
Responsible PartyLONG BEACH MORTGAGE
RP Address: Not reported
Global Id: T0611100984
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: GARDEN ACRES MUTUAL WATER CO
Well Name: WELL 01 - INACTIVE

LONG BEACH MORTGAGE (Continued) **U002169496**

Distance To Lust: 994.0119636317689507422574084
Waste Discharge Global ID: W0611102108
Waste Disch Assigned Name: 02N/22W-25Q01 S

LUST Region 4:
Report Date: 3/13/1995
Lead Agency: Local Agency
Local Agency: 56000
Case Number: C-95085
Substance: Gasoline
Case Type: Soil
Status: Signed off, remedial action completed or deemed unnecessary
Region: 4
Staff: Not reported

UST Ventura County Active & Inactive:
Facility ID: D1165
Facility Status: INACTIVE
Box No: UGTCLO 13
Region: Ventura County

C8
NNW
1/4-1/2
1501 ft.
Higher

LONG BEACH MORTGAGE **Cortese** **S104164955**
2935 VENTURA BL **LUST** **N/A**
OXNARD, CA 93030

Site 3 of 7 in cluster C

LUST Region VN:
Facility ID: 95085
Status: Active

CORTESE:
Reg Id: C-95085
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

C9
NNW
1/4-1/2
1513 ft.
Higher

C.A.B. ENTERPRISES **Cortese** **S102426017**
2927 VENTURA BL **N/A**
OXNARD, CA 93030

Site 4 of 7 in cluster C

CORTESE:
Reg Id: C-95171
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

C10
NNW
1/4-1/2
1513 ft.
Higher

C.A.B. ENTERPRISES **LUST** **S102859922**
2927 VENTURA BL **N/A**
OXNARD, CA 93030

Site 5 of 7 in cluster C

State LUST:
Cross Street: Not reported
Qty Leaked: Not reported
Case Number C-95171
Reg Board: Los Angeles Region
Chemical: Diesel

C.A.B. ENTERPRISES (Continued) **S102859922**

Lead Agency:	Local Agency		
Local Agency :	56000		
Case Type:	Soil only		
Status:	Preliminary site assessment workplan submitted		
County:	Ventura		
Review Date:	6/6/1995	Confirm Leak:	6/6/1995
Workplan:	Not reported	Prelim Assess:	Not reported
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	Not reported	Monitoring:	Not reported
Close Date:	Not reported		
Release Date:	6/27/1995		
Cleanup Fund Id :	Not reported		
Discover Date :	6/27/1995		
Enforcement Dt :	Not reported		
Enf Type:	Not reported		
Enter Date :	Not reported		
Funding:	Federal Funds		
Staff Initials:	UNK		
How Discovered:	Not reported		
How Stopped:	Not reported		
Interim :	Not reported		
Leak Cause:	Not reported		
Leak Source:	Not reported		
MTBE Date :	Not reported		
Max MTBE GW :	Not reported		
MTBE Tested:	Not Required to be Tested.		
Priority:	Not reported		
Local Case # :	95171		
Beneficial:	Not reported		
Staff :	JH		
GW Qualifies :	Not reported		
Max MTBE Soil :	Not reported		
Soil Qualifies :	Not reported		
Hydr Basin #:	Not reported		
Operator :	Not reported		
Oversight Prgm:	Local Oversight Program UST		
Oversight Prgm :	LOP		
Review Date :	Not reported		
Stop Date :	Not reported		
Work Suspended :	Not reported		
Responsible Party	DOUG & CAROL BURHOE		
RP Address:	Not reported		
Global Id:	T0611101059		
Org Name:	Not reported		
Contact Person:	Not reported		
MTBE Conc:	0		
Mtbe Fuel:	0		
Water System Name:	GARDEN ACRES MUTUAL WATER CO		
Well Name:	WELL 01 - INACTIVE		
Distance To Lust:	933.4251929956037328920650747		
Waste Discharge Global ID:	W0611102108		
Waste Disch Assigned Name:	02N/22W-25Q01 S		

LUST Region 4:

Report Date:	6/27/1995
Lead Agency:	Local Agency
Local Agency:	56000
Case Number:	C-95171

MAP FINDINGS

Map ID Direction Distance Distance (ft.) Elevation	Site	Database(s)	EDR ID Number EPA ID Number

C.A.B. ENTERPRISES (Continued) S102859922

Substance: Diesel
Case Type: Soil
Status: Preliminary site assessment workplan submitted
Region: 4
Staff: Not reported

LUST Region VN:
Facility ID: 95171
Status: Active

C11 NNW 1/4-1/2 1513 ft. Higher

D.W. BURHOE — **UST** — **U002244321 N/A**
2927 VENTURA BLVD.
OXNARD, CA

Site 6 of 7 in cluster C

UST Ventura County Active & Inactive:
Facility ID: D1188
Facility Status: INACTIVE
Box No: UGTCLO 14
Region: Ventura County

C12 NNW 1/4-1/2 1513 ft. Higher

D.W.BURHOE CONSTRUCTION, INC. — **HIST UST** — **U001579717 N/A**
2927 E VENTURA BLVD
OXNARD, CA 93030

Site 7 of 7 in cluster C

UST HIST:

Facility ID:	21519		
Tank Num:	1	Container Num:	001
Tank Capacity:	1000	Year Installed:	1979
Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Construction:	Not reported
Leak Detection:	None		
Contact Name:	DOUGLAS W. BURHOE, JR.	Telephone:	(805) 485-3183
Total Tanks:	2	Region:	STATE
Facility Type:	2	Other Type:	CONTRACTOR

Facility ID:	21519		
Tank Num:	2	Container Num:	002
Tank Capacity:	1000	Year Installed:	1979
Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Construction:	Not reported
Leak Detection:	Stock Inventor		
Contact Name:	DOUGLAS W. BURHOE, JR.	Telephone:	(805) 485-3183
Total Tanks:	2	Region:	STATE
Facility Type:	2	Other Type:	CONTRACTOR

D13 NW 1/4-1/2 1892 ft. Higher

G.E. SAWTELLE — **HIST UST** — **U001579746 N/A**
2701 E VENTURA BLVD
OXNARD, CA 93030

Site 1 of 6 in cluster D

UST HIST:

Facility ID:	10716		
Tank Num:	1	Container Num:	1

Map ID Direction Distance Distance (ft.) Elevation	Site	Database(s)	EDR ID Number EPA ID Number

G.E. SAWTELLE (Continued) U001579746

Tank Capacity: 1000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Leak Detection: Stock Inventor
Contact Name: G.E. SAWTELLE
Total Tanks: 3
Facility Type: 2
Year Installed: Not reported
Tank Construction: 1/4 inches
Telephone: (805) 482-2110
Region: STATE
Other Type: COMMERCIAL

Facility ID: 10716
Tank Num: 2
Tank Capacity: 1000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Leak Detection: Stock Inventor
Contact Name: G.E. SAWTELLE
Total Tanks: 3
Facility Type: 2
Container Num: 2
Year Installed: Not reported
Tank Construction: 1/4 inches
Telephone: (805) 482-2110
Region: STATE
Other Type: COMMERCIAL

Facility ID: 10716
Tank Num: 3
Tank Capacity: 1000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Leak Detection: Stock Inventor
Contact Name: G.E. SAWTELLE
Total Tanks: 3
Facility Type: 2
Container Num: 3
Year Installed: Not reported
Tank Construction: 1/4 inches
Telephone: (805) 482-2110
Region: STATE
Other Type: COMMERCIAL

D14
NW
1/4-1/2
1892 ft.
Higher

GILBERT (GIBB) SAWTELLE
2701 VENTURA BLVD
OXNARD, CA 93030

LUST **S102859925**
N/A

Site 2 of 6 in cluster D

State LUST:
Cross Street: Not reported
Qty Leaked: Not reported
Case Number C-87098
Reg Board: Los Angeles Region
Chemical: Regular Gasoline
Lead Agency: Local Agency
Local Agency : 56000
Case Type: Other ground water affected
Status: Pollution Assesment Report Completed
County: Ventura
Abate Method: Enhanced Biodegradation - use of any available technology to promote bacterial decomposition of contaminants
Review Date: 7/1/1988
Workplan: 3/27/1994
Pollution Char: Not reported
Remed Action: Not reported
Close Date: Not reported
Release Date: 8/20/1987
Cleanup Fund Id : Not reported
Discover Date : 8/20/1987
Enforcement Dt : 1/1/1965
Enf Type: 333
Enter Date : Not reported
Funding: Federal Funds
Confirm Leak: 7/1/1988
Prelim Assess: 3/27/1994
Remed Plan: Not reported
Monitoring: Not reported

GILBERT (GIBB) SAWTELLE (Continued) **S102859925**

Staff Initials: UNK
How Discovered: Not reported
How Stopped: Not reported
Interim : Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : 10/1/1997
Max MTBE GW : 2.6
MTBE Tested: MTBE Detected. Site tested for MTBE & MTBE detected
Priority: Not reported
Local Case # : 87098
Beneficial: Not reported
Staff : JH
GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Oversight Program UST
Oversight Prgm : LOP
Review Date : Not reported
Stop Date : Not reported
Work Suspended :Not reported
Responsible PartyESTATE OF GILBERT E SAWTELLE
RP Address: Not reported
Global Id: T0611100226
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 1
Mtbe Fuel: 1
Water System Name: GARDEN ACRES MUTUAL WATER CO
Well Name: WELL 01 - INACTIVE
Distance To Lust: 271.98516379196759391596989736
Waste Discharge Global ID: W0611102108
Waste Disch Assigned Name: 02N/22W-25Q01 S

LUST Region 4:
Report Date: 8/20/1987
Lead Agency: Local Agency
Local Agency: 56000
Case Number: C-87098
Substance: Regular Gasoline
Case Type: Groundwater
Status: Pollution Assesment Report Completed
Region: 4
Staff: Not reported

LUST Region VN:
Facility ID: 87098
Status: Active

D15 **GILBERT (GIBB) SAWTELLE** **Cortese** **S101305602**
NW **2701 VENTURA** **N/A**
1/4-1/2 **EL RIO, CA 93030**
1892 ft.
Higher **Site 3 of 6 in cluster D**

CORTESE:
Reg Id: C-87098
Region: CORTESE

MAP FINDINGS

Map ID Direction Distance Distance (ft.) Elevation	Site	Database(s)	EDR ID Number EPA ID Number

GILBERT (GIBB) SAWTELLE (Continued) — S101305602

Reg By: Leaking Underground Storage Tanks

D16 **NW** **1/4-1/2** **1892 ft.** **Higher**

SOMIS SUPPLY
2701 VENTURA BLVD.
EL RIO, CA

UST — U002169505 — N/A

Site 4 of 6 in cluster D

UST Ventura County Active & Inactive:

Facility ID:	D 704
Facility Status:	INACTIVE
Box No:	UGTCLO 05
Region:	Ventura County

E17 **NNW** **1/4-1/2** **1946 ft.** **Higher**

NYELAND COMMUNITY CHURCH
3326 NYELAND AVE.
OXNARD, CA 93030

UST — U002244118 — N/A

Site 1 of 2 in cluster E

UST Ventura County Active & Inactive:

Facility ID:	D 831
Facility Status:	INACTIVE
Box No:	UGTCLO 06
Region:	Ventura County

E18 **NNW** **1/4-1/2** **1946 ft.** **Higher**

NYELAND COMMUNITY CHURCH
3326 NYELAND AVE
OXNARD, CA 93030

LUST, Cortese — S104164836 — N/A

Site 2 of 2 in cluster E

State LUST:

Cross Street:	Not reported		
Qty Leaked:	Not reported		
Case Number	C-88090		
Reg Board:	Los Angeles Region		
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Local Agency :	56000		
Case Type:	Other ground water affected		
Status:	Signed off, remedial action completed or deemed unnecessary ✓		
County:	Ventura		
Abate Method:	Excavate and Treat - remove contaminated soil and treat (includes spreading or land farming)		
Review Date:	7/19/1988	Confirm Leak:	7/19/1988
Workplan:	6/12/1989	Prelim Assess:	6/12/1989
Pollution Char:	2/15/1990	Remed Plan:	2/15/1990
Remed Action:	2/15/1991	Monitoring:	2/15/1991
Close Date:	5/11/1994		
Release Date:	7/12/1988		
Cleanup Fund Id :	Not reported		
Discover Date :	7/12/1988		
Enforcement Dt :	7/19/1988		
Enf Type:	Not reported		
Enter Date :	Not reported		
Funding:	State Funds		
Staff Initials:	UNK		

NYELAND COMMUNITY CHURCH (Continued) **S104164836**

How Discovered: Not reported
How Stopped: Not reported
Interim : Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : Not reported
Max MTBE GW : Not reported
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority: Not reported
Local Case # : 88090
Beneficial: Not reported
Staff : JH
GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Oversight Program UST
Oversight Prgm : LOP
Review Date : Not reported
Stop Date : Not reported
Work Suspended :Not reported
Responsible PartyNYELAND COMM. CHURCH
RP Address: Not reported
Global Id: T0611100333
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: GARDEN ACRES MUTUAL WATER CO
Well Name: WELL 01 - INACTIVE
Distance To Lust: 501.63310038076573652956936364
Waste Discharge Global ID: W0611102108
Waste Disch Assigned Name: 02N/22W-25Q01 S

LUST Region 4:
Report Date: 7/12/1988
Lead Agency: Local Agency
Local Agency: 56000
Case Number: C-88090
Substance: Gasoline
Case Type: Groundwater
Status: Signed off, remedial action completed or deemed unnecessary
Region: 4
Staff: Not reported

LUST Region VN:
Facility ID: 88090
Status: Active

CORTESE:
Reg Id: C-88090
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

D19 **TOM HARVEY** **UST U003697707**
NW **2641 VENTURA BLVD** **HAZNET N/A**
1/4-1/2 **OXNARD, CA 93030**
2007 ft.
Higher **Site 5 of 6 in cluster D**

Map ID Direction Distance Distance (ft.) Elevation	Site	Database(s)	EDR ID Number EPA ID Number

TOM HARVEY (Continued) **U003697707**

HAZNET:

Gepaid:	CAC001431596
Tepaid:	CAT080013352
Gen County:	Ventura
Tsd County:	Los Angeles
Tons:	4.587
Category:	Unspecified organic liquid mixture
Disposal Method:	Recycler
Contact:	TOM HARVEY
Telephone:	(805) 488-6041
Mailing Address:	425 E BARD RD OXNARD, CA 93033
County	Ventura

UST Ventura County Active & Inactive:

Facility ID:	D1380
Facility Status:	INACTIVE
Box No:	UGTCLO 21
Region:	Ventura County

D20 **NW** **1/4-1/2** **2007 ft.** **Higher**	**THOMAS HARVEY** **2641 VENTURA BL** **OXNARD, CA 93030** **Site 6 of 6 in cluster D**	**LUST** **Cortese**	**S104228607** **N/A**

State LUST:

Cross Street:	Not reported		
Qty Leaked:	Not reported		
Case Number	C-99058		
Reg Board:	Los Angeles Region		
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Local Agency :	56000		
Case Type:	Soil only		
Status:	Leak being confirmed		
County:	Ventura		
Review Date:	9/22/1999	Confirm Leak:	9/22/1999
Workplan:	Not reported	Prelim Assess:	Not reported
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	Not reported	Monitoring:	Not reported
Close Date:	Not reported		
Release Date:	9/22/1999		
Cleanup Fund Id :	Not reported		
Discover Date :	Not reported		
Enforcement Dt :	Not reported		
Enf Type:	Not reported		
Enter Date :	Not reported		
Funding:	Federal Funds		
Staff Initials:	UNK		
How Discovered:	Not reported		
How Stopped:	Not reported		
Interim :	Not reported		
Leak Cause:	Not reported		
Leak Source:	Not reported		
MTBE Date :	Not reported		
Max MTBE GW :	Not reported		
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.		
Priority:	Not reported		

Map ID Direction Distance Distance (ft.) Elevation	Site	Database(s)	EDR ID Number EPA ID Number

THOMAS HARVEY (Continued) **S104228607**

Local Case # : 99058
Beneficial: Not reported
Staff : JH
GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Oversight Program UST
Oversight Prgm : LOP
Review Date : Not reported
Stop Date : Not reported
Work Suspended :Not reported
Responsible PartyTHOMAS HARVEY
RP Address: Not reported
Global Id: T0611192876
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 956.81071309514768259607 61665
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region 4:
Report Date: 9/22/1999
Lead Agency: Local Agency
Local Agency: 56000
Case Number: C-99058
Substance: Gasoline
Case Type: Soil
Status: Leak being confirmed
Region: 4
Staff: Not reported

LUST Region VN:
Facility ID: 99058
Status: Active

CORTESE:
Reg Id: 99058
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

21
NE
1/4-1/2
2185 ft.
Higher

VACCA BROS.
3964 E VENTURA BLVD
OXNARD, CA 93030

HIST UST **U001579891**
N/A

UST HIST:
Facility ID: 15601
Tank Num: 1 Container Num: 0000000001
Tank Capacity: 500 Year Installed: Not reported
Tank Used for: PRODUCT
Type of Fuel: REGULAR Tank Construction: Not reported
Leak Detection: Stock Inventor
Contact Name: CHUCK VACCA Telephone: (805) 485-4792

VACCA BROS. (Continued) U001579891

Total Tanks: 2
Facility Type: 2
Region: STATE
Other Type: RANCH

Facility ID: 15601
Tank Num: 2
Container Num: 0000000002
Tank Capacity: 300
Year Installed: Not reported
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: Not reported
Leak Detection: Stock Inventor
Contact Name: CHUCK VACCA
Telephone: (805) 485-4792
Total Tanks: 2
Region: STATE
Facility Type: 2
Other Type: RANCH

F22
WNW
1/4-1/2
2414 ft.
Higher

JOYCE MOTORS
2535 VENTURA BLVD.
OXNARD, CA

UST **U002244320**
N/A

Site 1 of 3 in cluster F

UST Ventura County Active & Inactive:
Facility ID: D1015
Facility Status: INACTIVE
Box No: UGTCLO 09
Region: Ventura County

F23
WNW
1/4-1/2
2468 ft.
Higher

LARRY'S CHEVRON
2505 VENTURA BLVD.
OXNARD, CA 04568

UST **U002169504**
N/A

Site 2 of 3 in cluster F

UST Ventura County Active & Inactive:
Facility ID: D 703
Facility Status: INACTIVE
Box No: UGTCLO 05
Region: Ventura County

F24
WNW
1/4-1/2
2577 ft.
Higher

GEORGE PAYMARD
2505 VENTURA BLVD
OXNARD, CA 93030

LUST **S102859924**
N/A

Site 3 of 3 in cluster F

State LUST:
Cross Street: Not reported
Qty Leaked: Not reported
Case Number C-89161
Reg Board: Los Angeles Region
Chemical: Gasoline
Lead Agency: Local Agency
Local Agency : 56000
Case Type: Other ground water affected
Status: Signed off, remedial action completed or deemed unnecessary ✓
County: Ventura
Abate Method: Excavate and Treat - remove contaminated soil and treat (includes spreading or land farming)
Review Date: 10/30/1989
Confirm Leak: 10/30/1989
Workplan: 10/30/1989
Prelim Assess: 10/30/1989

GEORGE PAYMARD (Continued) S102859924

Pollution Char: 11/30/1993
Remed Plan: 11/30/1993
Remed Action: 3/31/1997
Monitoring: 3/31/1997
Close Date: 8/4/1997
Release Date: 10/30/1989
Cleanup Fund Id : Not reported
Discover Date : 10/30/1989
Enforcement Dt : 10/30/1989
Enf Type: Not reported
Enter Date : Not reported
Funding: Federal Funds
Staff Initials: UNK
How Discovered: Not reported
How Stopped: Not reported
Interim : Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : Not reported
Max MTBE GW : Not reported
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority: Not reported
Local Case # : 89161
Beneficial: Not reported
Staff : JH
GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Oversight Program UST
Oversight Prgm : LOP
Review Date : Not reported
Stop Date : Not reported
Work Suspended :Not reported
Responsible PartyBUD AND KEN LUMBER
RP Address: Not reported
Global Id: T0611100560
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: NYELAND ACRES MUTUAL WATER CO
Well Name: WELL 04
Distance To Lust: 1257.3748756120349560510539802
Waste Discharge Global ID: W0611102111
Waste Disch Assigned Name: 02N/22W-25L05 S

LUST Region 4:
Report Date: 10/30/1989
Lead Agency: Local Agency
Local Agency: 56000
Case Number: C-89161
Substance: Gasoline
Case Type: Groundwater
Status: Signed off, remedial action completed or deemed unnecessary
Region: 4
Staff: Not reported

GEORGE PAYMARD (Continued) **S102859924**

LUST Region RV:
Facility ID: 89161
Region : RIVERSIDE
Status: Signed off, remedial action completed or deemed unnecessary
Site Closed: Referred to Water Board
Case Type: Ground water

LUST Region VN:
Facility ID: 89161
Status: Active

25
ESE
1/4-1/2
2608 ft.
Same

QUINN CO
801 DEL NORTE
OXNARD, CA 93030

RCRIS-SQG **1000857415**
FINDS **CAD983668476**
HAZNET
AST

RCRIS:
Owner: QUINN CO
(209) 896-4040
EPA ID: CAD983668476

Contact: DAVID PETERSON
(805) 485-2171

Classification: Small Quantity Generator
Used Oil Recyc: No
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Facility Registry System (FRS)
Resource Conservation and Recovery Act Information system (RCRAINFO)

HAZNET:
Gepaid: CAD983668476
Tepaid: CAT000613893
Gen County: Ventura
Tsd County: Los Angeles
Tons: .0145
Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Transfer Station
Contact: QUINN CO
Telephone: (805) 485-2171
Mailing Address: PO BOX 12625
FRESNO, CA 93778
County Ventura

Gepaid: CAD983668476
Tepaid: CAT000613893
Gen County: Ventura
Tsd County: Los Angeles
Tons: 1.1549
Category: Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method: Transfer Station
Contact: QUINN CO
Telephone: (805) 485-2171
Mailing Address: PO BOX 12625
FRESNO, CA 93778

QUINN CO (Continued) **1000857415**

County Ventura

Gepaid: CAD983668476
Tepaid: CAT000613893
Gen County: Ventura
Tsd County: Los Angeles
Tons: 1.3551
Category: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method: Transfer Station
Contact: QUINN CO
Telephone: (805) 485-2171
Mailing Address: PO BOX 12625
FRESNO, CA 93778
County Ventura

Gepaid: CAD983668476
Tepaid: CAD028409019
Gen County: Ventura
Tsd County: Los Angeles
Tons: 0.834
Category: Unspecified oil-containing waste
Disposal Method: Treatment, Tank
Contact: QUINN CO
Telephone: (805) 485-2171
Mailing Address: PO BOX 12625
FRESNO, CA 93778
County Ventura

Gepaid: CAD983668476
Tepaid: CAD080013352
Gen County: Ventura
Tsd County: 0
Tons: 7.6518
Category: Waste oil and mixed oil
Disposal Method: Not reported
Contact: QUINN CO
Telephone: (805) 485-2171
Mailing Address: PO BOX 12625
FRESNO, CA 93778
County Ventura

The CA HAZNET database contains 37 additional records for this site.
Please contact your EDR Account Executive for more information.

Map ID Direction Distance Distance (ft.) Elevation	Site	Database(s)	EDR ID Number EPA ID Number

QUINN CO (Continued) **1000857415**

AST:
Region: 4
Owner: CA CORPORATION

G26 ENE 1/2-1 2740 ft. Higher	**POWER MACHINERY** **3450 CAMINO AVE** **OXNARD, CA 93030** **Site 1 of 2 in cluster G**	**LUST**	**S102435441** **N/A**

State LUST:

Cross Street:	Not reported		
Qty Leaked:	Not reported		
Case Number	930300498		
Reg Board:	Los Angeles Region		
Chemical:	Diesel		
Lead Agency:	Regional Board		
Local Agency :	56000		
Case Type:	Soil only		
Status:	Signed off, remedial action completed or deemed unnecessary		
County:	Ventura		
Review Date:	Not reported	Confirm Leak:	Not reported
Workplan:	Not reported	Prelim Assess:	Not reported
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	Not reported	Monitoring:	Not reported
Close Date:	5/27/1988		
Release Date:	12/24/1987		
Cleanup Fund Id :	Not reported		
Discover Date :	12/22/1987		
Enforcement Dt :	Not reported		
Enf Type:	Not reported		
Enter Date :	1/5/1988		
Funding:	Not reported		
Staff Initials:	UNK		
How Discovered:	Tank Closure		
How Stopped:	Close Tank		
Interim :	Not reported		
Leak Cause:	Structure Failure		
Leak Source:	Piping		
MTBE Date :	Not reported		
Max MTBE GW :	Not reported		
MTBE Tested:	Not Required to be Tested.		
Priority:	Not reported		
Local Case # :	Not reported		
Beneficial:	Not reported		
Staff :	JH		
GW Qualifies :	Not reported		
Max MTBE Soil :	Not reported		
Soil Qualifies :	Not reported		
Hydr Basin #:	Not reported		
Operator :	Not reported		
Oversight Prgm:	RB Lead Underground Storage Tank		
Oversight Prgm :	UST		
Review Date :	6/15/1988		
Stop Date :	12/22/1987		
Work Suspended :	Not reported		
Responsible Party	POWER MACHINERY		
RP Address:	PO BOX 392 ***SEE COMMENTS, OXNARD, CA 93032		

Map ID Direction Distance Distance (ft.) Elevation	Site	Database(s)	EDR ID Number EPA ID Number

MAP FINDINGS

POWER MACHINERY (Continued) **S102435441**

Global Id: T0611100065
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 0
Water System Name: CAMARILLO WATER DEPT
Well Name: WELL C - DESTROYED
Distance To Lust: 3310.8613894791568374855404019
Waste Discharge Global ID: W0611110019
Waste Disch Assigned Name: 02N/21W-29N04 S

LUST Region 4:
Report Date: 12/24/1987
Lead Agency: Regional Board
Local Agency: 56000
Case Number: 930300498
Substance: Diesel
Case Type: Soil
Status: Signed off, remedial action completed or deemed unnecessary
Region: 4
Staff: Not reported

G27 **ENE** **1/2-1** **2740 ft.** **Higher**	**POWER MACHINERY CENTER** **3450 CAMINO AVE** **OXNARD, CA 93030** **Site 2 of 2 in cluster G**	**HAZNET** **Cortese**	**S100871098** **N/A**

HAZNET:
Gepaid: CAL000027020
Tepaid: CAT080013352
Gen County: Ventura
Tsd County: Los Angeles
Tons: .2085
Category: Unspecified aqueous solution
Disposal Method: Recycler
Contact: RICHARD PRES & JOHN POWER VP
Telephone: (805) 485-0577
Mailing Address: 3450 E CAMINO AVE
OXNARD, CA 93030 - 8809
County Ventura

Gepaid: CAL000027020
Tepaid: CAT080011059
Gen County: Ventura
Tsd County: Los Angeles
Tons: 3.5445
Category: Waste oil and mixed oil
Disposal Method: Recycler
Contact: RICHARD PRES & JOHN POWER VP
Telephone: (805) 485-0577
Mailing Address: 3450 E CAMINO AVE
OXNARD, CA 93030 - 8809
County Ventura

POWER MACHINERY CENTER (Continued) **S100871098**

Gepaid:	CAL000027020
Tepaid:	CAD099452708
Gen County:	Ventura
Tsd County:	Los Angeles
Tons:	0.4587
Category:	Unspecified aqueous solution
Disposal Method:	Recycler
Contact:	RICHARD PRES & JOHN POWER VP
Telephone:	(805) 485-0577
Mailing Address:	3450 E CAMINO AVE OXNARD, CA 93030 - 8809
County	Ventura

Gepaid:	CAL000027020
Tepaid:	CAT080013352
Gen County:	Ventura
Tsd County:	Los Angeles
Tons:	.4587
Category:	Aqueous solution with 10% or more total organic residues
Disposal Method:	Recycler
Contact:	RICHARD PRES & JOHN POWER VP
Telephone:	(805) 485-0577
Mailing Address:	3450 E CAMINO AVE OXNARD, CA 93030 - 8809
County	Ventura

Gepaid:	CAL000027020
Tepaid:	CAD099452708
Gen County:	Ventura
Tsd County:	Los Angeles
Tons:	.0834
Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Contact:	RICHARD PRES & JOHN POWER VP
Telephone:	(805) 485-0577
Mailing Address:	3450 E CAMINO AVE OXNARD, CA 93030 - 8809
County	Ventura

The CA HAZNET database contains 7 additional records for this site.
Please contact your EDR Account Executive for more information.

CORTESE:

Reg Id:	930300498
Region:	CORTESE
Reg By:	Leaking Underground Storage Tanks

28
North
1/2-1
2814 ft.
Higher

ACE K. HALL
3601 NYELAND AVE
OXNARD, CA 93030

LUST **S102859888**
Cortese **N/A**

State LUST:

Cross Street:	Not reported
Qty Leaked:	Not reported
Case Number	C-86027
Reg Board:	Los Angeles Region
Chemical:	Misc. Motor Vehicle Fuels
Lead Agency:	Local Agency

ACE K. HALL (Continued) S102859888

Local Agency : 56000
Case Type: Other ground water affected
Status: Leak being confirmed
County: Ventura
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Review Date: 7/1/1988
Confirm Leak: 7/1/1988
Workplan: 6/17/1986
Prelim Assess: 6/17/1986
Pollution Char: Not reported
Remed Plan: Not reported
Remed Action: Not reported
Monitoring: Not reported
Close Date: Not reported
Release Date: 6/17/1986
Cleanup Fund Id : Not reported
Discover Date : 6/17/1986
Enforcement Dt : 6/17/1986
Enf Type: Not reported
Enter Date : Not reported
Funding: Federal Funds
Staff Initials: UNK
How Discovered: Not reported
How Stopped: Not reported
Interim : Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : Not reported
Max MTBE GW : Not reported
MTBE Tested: Not Required to be Tested.
Priority: Not reported
Local Case # : 86027
Beneficial: Not reported
Staff : JH
GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Oversight Program UST
Oversight Prgm : LOP
Review Date : Not reported
Stop Date : Not reported
Work Suspended :Not reported
Responsible PartyALFREDO PLASCENCIA
RP Address: Not reported
Global Id: T0611100136
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 0
Water System Name: GARDEN ACRES MUTUAL WATER CO
Well Name: WELL 03 (1993)
Distance To Lust: 229.74794179704452905099361008
Waste Discharge Global ID: W0611102108
Waste Disch Assigned Name: 02N/22W-25J01 S

LUST Region 4:
Report Date: 6/17/1986
Lead Agency: Local Agency
Local Agency: 56000

ACE K. HALL (Continued) **S102859888**

Case Number:	C-86027
Substance:	Misc. Motor Vehicle Fuels
Case Type:	Groundwater
Status:	Leak being confirmed
Region:	4
Staff:	Not reported

LUST Region VN:

Facility ID:	86027
Status:	Active

CORTESE:

Reg Id:	C-86027
Region:	CORTESE
Reg By:	Leaking Underground Storage Tanks

29
WNW **2371 VENTURA BL.**
1/2-1 **OXNARD, CA 93030**
2827 ft.
Higher

CHMIRS **S100218764**
N/A

CHMIRS:

OES Control Number:	8910639	DOT ID:	Not reported
DOT Hazard Class:	Not Reported		
Chemical Name:	UNKNOWN		
Extent of Release:	Not reported		
CAS Number:	Not reported	Quantity Released:	Not reported
Environmental Contamination:	Ground	Property Use:	Residential
Incident Date:	18-AUG-89	Date Completed:	18-AUG-89

Time Completed :	1619
Physical State Stored :	Solid
Physical State Released :	Solid
Release Unit :	Not reported
Container Description :	1
Container Type :	08
Container Material :	Plastic , Flexible
Level Of Container :	Below Ground
Container Capacity :	20
Container Capacity Units (code) :	2
Extent Of Release (code) :	6
Agency Id Number :	56020
Agency Incident Number :	10755
OES Incident Number :	8910639
Time Notified :	1358
Surrounding Area :	400
Estimated Temperature :	75
Property Management :	P
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	0
Others Number Of Decontaminated :	0
Others Number Of Injuries :	0

Map ID Direction Distance Distance (ft.) Elevation	Site	Database(s)	EDR ID Number EPA ID Number

(Continued) **S100218764**

Others Number Of Fatalities :	0
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	J.R. EMORY CAPTAIN 57
Report Date :	20-AUG-89
Comments :	Not reported
Facility Telephone Number :	805 656-1500

---

30 **North** **1/2-1** **3255 ft.** **Higher**	**MANHOLE** **3717 NYELAND AVE.** **OXNARD, CA 93030**	**Notify 65**	**S100179746** **N/A**

NOTIFY 65:

Date Reported:	Not reported	Staff Initials: Not reported
Board File Number:	Not reported	
Facility Type:	Not reported	
Discharge Date:	Not reported	
Incident Description:	93030	

H31 **WNW** **1/2-1** **3376 ft.** **Higher**	**GIBBS INTERNATIONAL,INC.** **2201 VENTURA BLVD.** **OXNARD, CA 93031** **Site 1 of 2 in cluster H**	**LUST** **Cortese**	**S103684255** **N/A**

State LUST:

Cross Street:	Not reported		
Qty Leaked:	Not reported		
Case Number	C-96047		
Reg Board:	Los Angeles Region		
Chemical:	Diesel		
Lead Agency:	Local Agency		
Local Agency :	56000		
Case Type:	Soil only		
Status:	Signed off, remedial action completed or deemed unnecessary ✓		
County:	Ventura		
Review Date:	10/14/1996	Confirm Leak:	10/14/1996
Workplan:	11/12/1996	Prelim Assess:	11/12/1996
Pollution Char:	11/12/1996	Remed Plan:	11/12/1996
Remed Action:	11/12/1996	Monitoring:	11/12/1996
Close Date:	2/10/1997		
Release Date:	10/14/1996		
Cleanup Fund Id :	Not reported		
Discover Date :	10/14/1996		
Enforcement Dt :	Not reported		
Enf Type:	Not reported		
Enter Date :	Not reported		
Funding:	Federal Funds		
Staff Initials:	UNK		
How Discovered:	Not reported		
How Stopped:	Not reported		
Interim :	Not reported		

Map ID Direction Distance Distance (ft.) Elevation	Site	Database(s)	EDR ID Number EPA ID Number

GIBBS INTERNATIONAL,INC. (Continued) **S103684255**

Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : Not reported
Max MTBE GW : Not reported
MTBE Tested: Not Required to be Tested.
Priority: Not reported
Local Case # : 96047
Beneficial: Not reported
Staff : JH
GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Oversight Program UST
Oversight Prgm : LOP
Review Date : Not reported
Stop Date : Not reported
Work Suspended :Not reported
Responsible PartyGIBB INTERNATIONAL, INC.
RP Address: Not reported
Global Id: T0611101113
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 0
Water System Name: Not reported
Well Name: WELL 01
Distance To Lust: 325.93629895730972842168127387
Waste Discharge Global ID: W0611102105
Waste Disch Assigned Name: 02N/22W-25N03 S

LUST Region 4:
Report Date: 10/14/1996
Lead Agency: Local Agency
Local Agency: 56000
Case Number: C-96047
Substance: Diesel
Case Type: Soil
Status: Signed off, remedial action completed or deemed unnecessary
Region: 4
Staff: Not reported

LUST Region VN:
Facility ID: 96047
Status: Active

CORTESE:
Reg Id: C-96047
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

Reg Id: C-92056
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

H32 **WNW** **1/2-1** **3376 ft.** **Higher**	**2201 EAST VENTURA BLVD.** **OXNARD, CA 93030** **Site 2 of 2 in cluster H**	**CHMIRS**	**S100276759** **N/A**

(Continued) **S100276759**

CHMIRS:

OES Control Number:	9100435	DOT ID:	Not reported
DOT Hazard Class:	Not Reported		
Chemical Name:	WASTE OIL		
Extent of Release:	Not reported		
CAS Number:	Not reported	Quantity Released:	0
Environmental Contamination:	None Reported	Property Use:	Industrial, Utility
Incident Date:	18-MAY-91	Date Completed:	18-MAY-91

Time Completed :	1800
Physical State Stored :	Solid
Physical State Released :	Not reported
Release Unit :	Not reported
Container Description :	2
Container Type :	Bag
Container Material :	Plastic , Flexible
Level Of Container :	Above Ground
Container Capacity :	10
Container Capacity Units (code) :	2
Extent Of Release (code) :	8
Agency Id Number :	56712
Agency Incident Number :	91039
OES Incident Number :	9100435
Time Notified :	1430
Surrounding Area :	099
Estimated Temperature :	Not reported
Property Management :	P
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	0
Others Number Of Decontaminated :	0
Others Number Of Injuries :	0
Others Number Of Fatalities :	0
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	DAWN CHASE 10994
Report Date :	22-MAY-91
Comments :	Yes
Facility Telephone Number :	805 654-2813

33 **WNW** **1/2-1** **3763 ft.** **Higher**	**OXNARD TRUCK CENTER** **2101 E VENTURA BLVD** **OXNARD, CA 93030**	**RCRIS-SQG** **FINDS** **CA FID UST** **HIST UST** **LUST** **HAZNET** **Cortese**	**1000595518** **CAD983594656**

OXNARD TRUCK CENTER (Continued) **1000595518**

RCRIS:

Owner:	HENRY L WELLS (415) 555-1212
EPA ID:	CAD983594656
Contact:	RAHN HOWARD (805) 485-9656
Classification:	Small Quantity Generator
Used Oil Recyc:	No
TSDF Activities:	Not reported
Violation Status:	No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:
Facility Registry System (FRS)
Resource Conservation and Recovery Act Information system (RCRAINFO)

State LUST:

Cross Street:	Not reported		
Qty Leaked:	Not reported		
Case Number	C-99006		
Reg Board:	Los Angeles Region		
Chemical:	Waste Oil		
Lead Agency:	Local Agency		
Local Agency :	56000		
Case Type:	Soil only		
Status:	Preliminary site assessment workplan submitted		
County:	Ventura		
Review Date:	12/14/1998	Confirm Leak:	12/14/1998
Workplan:	Not reported	Prelim Assess:	Not reported
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	Not reported	Monitoring:	Not reported
Close Date:	Not reported		
Release Date:	1/26/1999		
Cleanup Fund Id :	Not reported		
Discover Date :	1/26/1999		
Enforcement Dt :	Not reported		
Enf Type:	Not reported		
Enter Date :	Not reported		
Funding:	Federal Funds		
Staff Initials:	UNK		
How Discovered:	Not reported		
How Stopped:	Not reported		
Interim :	Not reported		
Leak Cause:	Not reported		
Leak Source:	Not reported		
MTBE Date :	Not reported		
Max MTBE GW :	Not reported		
MTBE Tested:	Not Required to be Tested.		
Priority:	Not reported		
Local Case # :	99006		
Beneficial:	Not reported		
Staff :	JH		
GW Qualifies :	Not reported		
Max MTBE Soil :	Not reported		
Soil Qualifies :	Not reported		

OXNARD TRUCK CENTER (Continued) **1000595518**

Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Oversight Program UST
Oversight Prgm : LOP
Review Date : Not reported
Stop Date : Not reported
Work Suspended :Not reported
Responsible PartyCONTRACTORS EQUIPMENT COMPANY
RP Address: Not reported
Global Id: T0611101207
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 0
Water System Name: Not reported
Well Name: WELL 01
Distance To Lust: 352.79454260294632179953765395
Waste Discharge Global ID: W0611102105
Waste Disch Assigned Name: 02N/22W-25N03 S

Cross Street: Not reported
Qty Leaked: Not reported
Case Number C-87054
Reg Board: Los Angeles Region
Chemical: Diesel
Lead Agency: Local Agency
Local Agency : 56000
Case Type: Other ground water affected
Status: Final Remediation plan Approved
County: Ventura
Abate Method: Excavate and Treat - remove contaminated soil and treat (includes spreading or land farming)
Review Date: 7/1/1988 Confirm Leak: 7/1/1988
Workplan: 4/29/1992 Prelim Assess: 4/29/1992
Pollution Char: 8/25/1995 Remed Plan: 8/25/1995
Remed Action: Not reported Monitoring: Not reported
Close Date: Not reported
Release Date: 4/25/1987
Cleanup Fund Id : Not reported
Discover Date : 4/25/1987
Enforcement Dt : 4/25/1988
Enf Type: Not reported
Enter Date : Not reported
Funding: Federal Funds
Staff Initials: UNK
How Discovered: Not reported
How Stopped: Not reported
Interim : Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : Not reported
Max MTBE GW : Not reported
MTBE Tested: Not Required to be Tested.
Priority: Not reported
Local Case # : 87054
Beneficial: Not reported
Staff : JH

OXNARD TRUCK CENTER (Continued) **1000595518**

GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Oversight Program UST
Oversight Prgm : LOP
Review Date : Not reported
Stop Date : Not reported
Work Suspended :Not reported
Responsible PartyCONTRACTOR'S EQUIPMENT CORP.
RP Address: Not reported
Global Id: T0611100198
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 0
Water System Name: Not reported
Well Name: WELL 01
Distance To Lust: 364.8296200080358168031888329
Waste Discharge Global ID: W0611102105
Waste Disch Assigned Name: 02N/22W-25N03 S

LUST Region 4:
Report Date: 4/25/1987
Lead Agency: Local Agency
Local Agency: 56000
Case Number: C-87054
Substance: Diesel
Case Type: Groundwater
Status: Final Remediation plan Approved
Region: 4
Staff: Not reported

Report Date: 1/26/1999
Lead Agency: Local Agency
Local Agency: 56000
Case Number: C-99006
Substance: Waste Oil
Case Type: Soil
Status: Preliminary site assessment workplan submitted
Region: 4
Staff: Not reported

LUST Region VN:
Facility ID: 87054
Status: Active

HAZNET:
Gepaid: CAD983594656
Tepaid: CAD008252405
Gen County: Ventura
Tsd County: Los Angeles
Tons: .2085
Category: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method: Recycler
Contact: HENRY & LLOYD WELLS
Telephone: (805) 485-9656
Mailing Address: 2101 E VENTURA BLVD

OXNARD TRUCK CENTER (Continued) **1000595518**

	OXNARD, CA 93030 - 8951
County	Ventura
Gepaid:	CAD983594656
Tepaid:	CAD008252405
Gen County:	Ventura
Tsd County:	Los Angeles
Tons:	.2085
Category:	Unspecified solvent mixture Waste
Disposal Method:	Recycler
Contact:	HENRY & LLOYD WELLS
Telephone:	(805) 485-9656
Mailing Address:	2101 E VENTURA BLVD
	OXNARD, CA 93030 - 8951
County	Ventura
Gepaid:	CAD983594656
Tepaid:	CAD980883177
Gen County:	Ventura
Tsd County:	Kern
Tons:	.6672
Category:	Unspecified oil-containing waste
Disposal Method:	Recycler
Contact:	HENRY & LLOYD WELLS
Telephone:	(805) 485-9656
Mailing Address:	2101 E VENTURA BLVD
	OXNARD, CA 93030 - 8951
County	Ventura
Gepaid:	CAD983594656
Tepaid:	CAD008252405
Gen County:	Ventura
Tsd County:	Los Angeles
Tons:	0.6463
Category:	Unspecified organic liquid mixture
Disposal Method:	Recycler
Contact:	HENRY & LLOYD WELLS
Telephone:	(805) 485-9656
Mailing Address:	2101 E VENTURA BLVD
	OXNARD, CA 93030 - 8951
County	Ventura
Gepaid:	CAD983594656
Tepaid:	CAT080033681
Gen County:	Ventura
Tsd County:	Los Angeles
Tons:	0.8428
Category:	Other organic solids
Disposal Method:	Disposal, Land Fill
Contact:	HENRY & LLOYD WELLS
Telephone:	(805) 485-9656
Mailing Address:	2101 E VENTURA BLVD
	OXNARD, CA 93030 - 8951
County	Ventura

The CA HAZNET database contains 21 additional records for this site.
Please contact your EDR Account Executive for more information.

CORTESE:
Reg Id: C-99006

OXNARD TRUCK CENTER (Continued) **1000595518**

Region: CORTESE
Reg By: Leaking Underground Storage Tanks

Reg Id: C-87054
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

FID:

Facility ID:	56000146	Regulate ID:	43164
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	Not reported
Mail To:	Not reported 2101 E VENTURA BLVD OXNARD, CA 93030		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

UST HIST:

Facility ID:	43164		
Tank Num:	1	Container Num:	1
Tank Capacity:	8000	Year Installed:	81
Tank Used for:	PRODUCT		
Type of Fuel:	Not Reported	Tank Construction:	Not reported
Leak Detection:	Visual		
Contact Name:	HOWAR RAHN	Telephone:	(805) 485-9656
Total Tanks:	3	Region:	STATE
Facility Type:	2	Other Type:	DEALERSHIP

Facility ID:	43164		
Tank Num:	2	Container Num:	2
Tank Capacity:	8000	Year Installed:	1981
Tank Used for:	PRODUCT		
Type of Fuel:	Not Reported	Tank Construction:	Not reported
Leak Detection:	Visual, None		
Contact Name:	HOWAR RAHN	Telephone:	(805) 485-9656
Total Tanks:	3	Region:	STATE
Facility Type:	2	Other Type:	DEALERSHIP

Facility ID:	43164		
Tank Num:	3	Container Num:	3
Tank Capacity:	12000	Year Installed:	1981
Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Construction:	Not reported
Leak Detection:	Visual, None		
Contact Name:	HOWAR RAHN	Telephone:	(805) 485-9656
Total Tanks:	3	Region:	STATE
Facility Type:	2	Other Type:	DEALERSHIP

34 **SW** **1/2-1** **4014 ft.** **Higher**	**FACELLE CO INC** **800 N RICE AVE** **OXNARD, CA 93030**	**Cal-Sites**	**1000205111** **N/A**

CAL-SITES:
Facility ID 56260002

FACELLE CO INC (Continued) **1000205111**

Status:	REFOA - DOES NOT REQUIRE DTSC ACTION OR OVERSITE ACTIVITY. REFERED TO OTHER AGENCY LEAD	
Status Date:	08/31/1995	
Lead:	Not reported	
Region:	3 - BURBANK	
Branch:	SA - SOUTHERN CA. - A	
File Name:	Not reported	
Status Name:	PROPERTY/SITE REFERRED TO ANOTHER AGENCY	
Lead Agency:	N/A	Not reported
NPL:	Not reported	
SIC:	26 MANU - PAPER & ALLIED PRODUCTS	

Facility Type:	N/A
Type Name:	Not reported
Staff Member Responsible for Site:	Not reported
Supervisor Responsible for Site:	MMONROY
Region Water Control Board:	LA - LOS ANGELES
Access:	Not reported
Cortese:	Not reported
Hazardous Ranking Score:	Not reported
Date Site Hazard Ranked:	Not reported
Groundwater Contamination:	Not reported
No. of Contamination Sources:	0
Lat/Long:	0° 0´ 0.00˝ / 0° 0´ 0.00˝
Lat/long Method:	Not reported
State Assembly District Code:	37
State Senate District:	19

The CAL-SITES database may contain additional details for this site.
Please contact your EDR Account Executive for more information.

35
SW
1/2-1
4144 ft.
Higher

PAPER & PLASTICS INC
940 MAULHARDT AVE
OXNARD, CA 93030

LUST **S104161089**
Cortese **N/A**

State LUST:

Cross Street:	Not reported		
Qty Leaked:	Not reported		
Case Number	C-87100		
Reg Board:	Los Angeles Region		
Chemical:	Unleaded Gasoline		
Lead Agency:	Local Agency		
Local Agency :	56000		
Case Type:	Soil only		
Status:	Signed off, remedial action completed or deemed unnecessary ✓		
County:	Ventura		
Abate Method:	Excavate and Treat - remove contaminated soil and treat (includes spreading or land farming)		
Review Date:	7/1/1988	Confirm Leak:	7/1/1988
Workplan:	9/11/1987	Prelim Assess:	9/11/1987
Pollution Char:	11/9/1987	Remed Plan:	11/9/1987
Remed Action:	Not reported	Monitoring:	Not reported
Close Date:	1/3/1989		
Release Date:	8/24/1987		
Cleanup Fund Id :	Not reported		
Discover Date :	8/24/1987		
Enforcement Dt :	8/25/1987		
Enf Type:	Not reported		

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

Database(s) EDR ID Number
EPA ID Number

PAPER & PLASTICS INC (Continued) S104161089

Enter Date : Not reported
Funding: State Funds
Staff Initials: UNK
How Discovered: Not reported
How Stopped: Not reported
Interim : Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : Not reported
Max MTBE GW : Not reported
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority: Not reported
Local Case # : 87100
Beneficial: Not reported
Staff : JH
GW Qualifies : Not reported
Max MTBE Soil : Not reported
Soil Qualifies : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Oversight Program UST
Oversight Prgm : LOP
Review Date : Not reported
Stop Date : Not reported
Work Suspended :Not reported
Responsible PartyPAPER & PLASTICS
RP Address: Not reported
Global Id: T0611100228
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: WELL 01
Distance To Lust: 4594.9871601527005685722311612
Waste Discharge Global ID: W0611102105
Waste Disch Assigned Name: 02N/22W-25N03 S

LUST Region 4:
Report Date: 8/24/1987
Lead Agency: Local Agency
Local Agency: 56000
Case Number: C-87100
Substance: Unleaded Gasoline
Case Type: Soil
Status: Signed off, remedial action completed or deemed unnecessary
Region: 4
Staff: Not reported

LUST Region VN:
Facility ID: 87100
Status: Active

CORTESE:
Reg Id: C-87100
Region: CORTESE
Reg By: Leaking Underground Storage Tanks

6.0

REFERENCES

1938 - 1994 Historical Aerial Photographs provided by Environmental Data Resources.

Date	Approximate Scale	Inquiry #
1994	1"= 666'	809377.6
1989	1"= 666'	809377.6
1977	1"= 666'	809377.6
1966	1"= 833'	809377.6
1959	1"= 555'	809377.6
1945	1"= 400'	809377.6
1938	1"= 555'	809377.6

California Department of Oil, Gas, and Geothermal Resources (DOGGR), Regional Wildcat Map #2-1, Ventura and Los Angeles Counties, dated April 24, 1999.

City of Oxnard, File Review, Fire Department Administrative Headquarters, conducted on July 23, 2002.

City of Oxnard 2020 General Plan, dated November 1990.

County of Ventura, File Review, Environmental Health Division, conducted on July 23, 2002.

Department of Water Resources, Ms. Ann Roth, July 3, 2002.

EPA Map of Radon Zones, U.S. EPA, 1993.

First American Real Estate Solutions, Property Data, 2000-2001.

Flood Insurance Rate Map, Federal Emergency Management Agency (FEMA), Panel 10 of 25, Community Panel Number 060417 0010 C, Oxnard, California, dated October 15, 1985.

Governmental Records, Environmental Data Resources, Inc., July 3, 2002.

Interview, Mr. Brian Fukutomi, El Rio Fukutomi Farms, Inc., conducted on July 23, 2002.

Interview, On-Site Worker (Rodriguez) for Hiji Bros. Inc, conducted on July 23, 2002.

NiteOwl Property Database, Lawyers Title Insurance Corporation, reviewed on July 5, 2002.

APPENDIX

A. EDR (Database) Search

The EDR Radius Map
with GeoCheck®

Sakioka Farms
Rice Ave/Del Norte Boulevard
Oxnard, CA 93030

Inquiry Number: 809377.3s

July 03, 2002

EDR® Environmental Data Resources, Inc.

The Source
For Environmental
Risk Management
Data

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

FORM-KEN

routinely changing and structures/wells are either being created or demolished. In the 1977 aerial photograph, the subject site appears to consist of approximately five (5) structures. One (1) detention basin/irrigation pond appears visible within the southeastern portion of the subject site. The majority of the on-site roads extend in a east/west direction; the roadways appear to be utilized for agricultural harvesting and maintenance. The southwestern portion of the subject site appears to consist of orchards and houses two (2) of the on-site structures. Surrounding off-site uses appear similar to those viewed in the1966 aerial photograph. The SR-101/Del Norte Boulevard intersection is now present to the northeast of the subject site.

1989-
1994: In the 1988 through 1994 aerial photographs, on-site land uses appear similar to those viewed in the 1977 aerial photograph. The on-site structures continue to be located within the northwestern portion of the subject site. Aside from agricultural uses, numerous wells (gas, water, and/or oil) appear to be present within the boundaries of the subject site. The detention basin viewed in the 1977 aerial photograph is still present within the central portion of the subject site. Surrounding mixed uses (agricultural, residential, limited industrial) appear similar to those viewed in the 1977 aerial photograph. Del Norte Boulevard is now present and adjoins the eastern portion of the subject site.

Based on review of the above referenced historical aerial photographs, the subject site appears to have consisted of agricultural uses and associated structures. Evidence of past water, gas, and oil wells were noted within the review of historical aerial photographs.

3.1.4 Other Historical Sources

Other historical sources include miscellaneous maps, newspaper archives, and records in the files and/or personal knowledge of the property owner and/or occupants. No other historical sources beyond those previously identified within this Assessment were utilized during the historical investigation.

3.2 REGULATORY SOURCES

The governmental sources have been searched by Environmental Data Systems (EDR), Inc. (at the request of RBF), for sites within the subject site and within an approximate one-mile radius of the subject property boundaries. Upon completion of their search, EDR provided RBF with their findings dated July 3, 2002 (refer to Appendix A, *EDR Search*). Sites listed in the EDR Report and other environmental documentation that are one-quarter mile or greater from the subject site are reviewed to determine if there were or are any potential airborne releases where the plume could affect the subject site by transport via the dominant wind pattern in the area. Surface water releases in creeks or other drainage areas are also reviewed for sites listed in the EDR Report that are greater than one-quarter mile from the subject site.

RBF makes no claims as to the completeness or accuracy of the referenced sources. Our review of EDR's findings can only be as current as their listings and may not represent all known or potential hazardous waste or contaminated sites. To reduce the potential for omitting possible hazardous material sites on the subject property and within the surrounding area, sites may be listed in this report if there is any doubt as to the location because of discrepancies in map location, zip code, address, or other information. The following federal and state records searched are presented below preceded by a description of the purpose of each database:

3.2.1 Federal Sources

Federal ASTM Records:

National Priorities List (NPL): The National Priorities List (NPL) is the EPA's database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund program. A site must meet or surpass a predetermined hazard ranking system score, be chosen as a state's top priority site, or meet three specific criteria set jointly by the U.S. Department of Health and Human Services and the U.S. EPA in order to become an NPL site.

RCRA Corrective Action Report (CORRACTS): The EPA maintains this database of RCRA facilities which are undergoing "corrective action". A "corrective action order" is issued pursuant to RCRA Section 3008(h) when there has been a release of hazardous waste or constituents into the environment from a RCRA facility. Corrective actions may be required beyond the facility's boundary and can be required regardless of when the release occurred, even if it predated RCRA.

Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS/NFRAP): The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS/NFRAP) database is a comprehensive listing of known or suspected uncontrolled or abandoned hazardous waste sites. These sites have either been investigated or are currently under investigation by the EPA for release or threatened release of hazardous substances. Once a site is placed in CERCLIS, it may be subjected to several levels of review and evaluation and ultimately placed on the National Priorities List (NPL).

RCRA Permitted Treatment, Storage, Disposal Facilities (RCRA-TSD): The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilities database is a compilation by the EPA of facilities which report generation, storage, transportation, treatment, or disposal of hazardous waste. RCRA TSDs are facilities which treat, store and/or dispose of hazardous waste.

RCRA Registered Small or Large Generators of Hazardous Waste (GNRTR): The RCRA Large and Small quantity Generators database is a compilation by the EPA of facilities, which report generation, storage, transportation, treatment of disposal of hazardous waste.

Toxic Release Inventory System (TRIS): All facilities that manufacture, process, or import toxic chemicals in quantities in excess of 25,000 pounds per year are required to register with the EPA under Section 313 of the Superfund Amendments and Reauthorization Act (SARA Title III) of 1986. Data contained in the TRIS system covers approximately 20,000 sites and 75,000 chemicals releases.

3.2.2 State Sources

State of California ASTM Records:

State CERCLIS (SCL): This database is provided by the Department of Toxic Substances Control to evaluate and track activities at sites that may have been affected by the release of hazardous substances.

State Equivalent Priority List (SPL): This database is provided by the California Environmental Protection Agency, Department of Toxic Substances Control.

Leaking Underground Storage Tanks (LUST): This database is provided by the California Environmental Protection Agency.

Solid Waste Landfill List (SWLF): This database is provided by the California Solid Waste Information System (SWIS) and consists of both open as well as closed inactive solid waste disposal facilities and transfer station pursuant tot he Solid Waste Management and Resource Recovery Act of 1972.

Registered Underground or Aboveground Storage Tank Database (UST/AST): This database is provided by the State Water Resources Control Board, Office of Underground Storage Tanks.

ERNS and State Lists (SPILLS): This database contains information from spill reports made to federal authorities including the EPA, the U.S. Coast Guard, the National Response Center and the Department of Transportation.

3.2.3 Standard Environmental Record Searches

3.2.3.1 Subject Site

The subject site is not listed in the above identified databases. There has been no notice of violation, cease and desist order, or the like issued with respect to the subject site. No corrective action, restoration, or remediation has been planned, is currently taking place, or has been completed on the subject site. The subject site has not been under investigation for violation of any environmental laws, regulations, or standards as identified in the databases above. As previously mentioned in *Section 3.2.1.8*, the Oxnard City Fire Department maintains one (1) file within regards to the subject site. The file appeared to be maintained due to hazardous materials (fertilizers, pesticides, and gasoline/diesel) on-site; no violations or improper storage has been found.

3.2.3.2 All Regulatory Listed Sites Within a One-Mile Radius of the Subject Site

Thirty-one (31) listed regulatory sites are located within a one-mile radius of the subject site which are listed in one or more of the above identified databases. For a complete list of sites identified and their status, refer to the map of sites within a one-mile radius of the subject site contained within Appendix A, *EDR Search*. Table 1, *Identified Regulatory Sites Within a One-Mile of the Subject Site*, below, indicates the listed regulatory sites located within a one-mile radius of the subject site.

3.2.4 Additional Environmental Record Searches

No additional environmental records searches were performed during the preparation of this Assessment.

Table 1
IDENTIFIED SITES WITHIN A ONE-MILE RADIUS OF THE SUBJECT SITE
(Were Identified in the Regulatory Database)

EDR Map ID#	Site Name/Address	Direction from Subject Site	Regulatory UST	Site Status	Potential for an Environmental Condition on the Subject Site
A1-A3	Nyeland Acres Treatment Plant 3250 East Ventura Boulevard	0.12-miles north of the subject site	HIST UST CA FID UST LUST CORTESE	One (1) UST (Diesel) on-site. One (1) LUST on-site, contamination limited to soil only. Leak currently being confirmed. Waste water treatment, no violations reported.	Low (Refer to site status)
B4	Nyeland Acres Wastewater 3550 Ventura Boulevard	0.12-miles north of the subject site	LUST	Active site. Contamination limited to soil only.	Low (Refer to site status)
C5	Channel Cities Pumping Company 2971 Ventura Boulevard	0.25-miles northwest of the subject site	RCRIS-SQG FINDS	Small Quantity Generator No violations found; no further information reported.	Low (No contamination reported)
B6	Dewey Pest Control 2991 East Ventura Boulevard	0.25-miles northwest of the subject site	RCRIS-SQG FINDS	Small Quantity Generator No violations found; no further information reported.	Low (No contamination reported)
C7/C8	Long Beach Mortgage 2935 Ventura Boulevard	0.25-miles northwest of the subject site	UST LUST CORTESE	Contamination limited to soil only. Signed off, remedial action completed or deemed unnecessary.	Low (Refer to site status and *Section 3.2.1.9*)
C9/C10	C.A.B. Enterprises 2927 Ventura Boulevard	0.25-miles northwest of the subject site	CORTESE LUST	Contamination (Diesel) limited to soil only. Preliminary site assessment underway.	Low (Refer to site status)
C11/ C12	D.W. Burhoe Construction, Inc. 2927 East Ventura Boulevard	0.25-miles northwest of the subject site	HIST UST	Two (2) UST's on-site, no leaks detected.	Low (No contamination reported)
D13-D15	G.E. Sawtelle 2701 East Ventura Boulevard	0.25-miles northwest of the subject site	HIST UST LUST CORTESE UST	Three (3) UST's on-site. One (1) LUST has impacted groundwater (regular gasoline). Pollution Assessment Report completed.	Low (Refer to site status and *Section 3.2.1.9*)
D16	Somis Supply 2701 Ventura Boulevard	0.25-miles northwest of the subject site	UST	Inactive UST on-site.	Low (No contamination reported)
E17/ E18	Nyeland Community Church 3326 Nyeland Avenue	0.30-miles north of the subject site	UST LUST CORTESE	LUST signed off; remedial action completed or deemed unnecessary.	Low (Refer to site status)
D19/ D20	Tom Harvey 2641 Ventura Boulevard	0.25-miles northwest of the subject site	UST HAZNET LUST CORTESE	Unspecified organic liquid mixtures on-site. **Disposal Method: Recycler.** Contamination limited to soil only.	Low (Refer to site status)

21	Vacca Brothers 3964 East Ventura Boulevard	0.30-miles northeast of the subject site	HIST UST	Two (2) historical UST's registered on-site.	Low (No contamination reported)
F22	Joyce Motors 2535 Ventura Boulevard	0.50-miles west of the subject site	UST	One (1) inactive UST registered on-site. No further information reported.	Low (No contamination reported)
F23/ F24	Larry's Chevron/George Paymard 2505 Ventura Boulevard	0.50-miles west of the subject site	UST LUST	One (1) inactive UST registered on-site. Signed off, remedial action completed or deemed unnecessary.	Low (Refer to site status)
25	Quinn Co. 801 Del Norte	0.50-miles east of the subject site	RCRIS-SQG FINDS HAZNET AST	Small Quantity Generator (waste oil, hydrocarbon solvents on-site). **Disposal Method: Transfer Station.**	Low (No contamination reported)
G26/ G27	Power Machinery 3450 Camino Avenue	0.50-miles east of the subject site	LUST HAZNET CORTESE	Contamination limited to soil only. Signed off, remedial action completed or deemed unnecessary. Unspecified solutions and waste oil on-site. **Disposal Method: Recycler.**	Low (Refer to site status)
28	Ace K. Hall 3601 Nyeland Avenue	0.50-miles north of the subject site	LUST CORTESE	LUST impacted groundwater, leak being confirmed.	Low (Refer to site status and *Section 3.2.1.9*)
29	2371 Ventura Boulevard	0.50-miles west of the subject site	CHMIRS	Contamination of the ground surface on August 18, 1989. Site completed on same date.	Low (Refer to site status)
30	Manhole 3717 Nyeland Avenue	0.55-miles west of the subject site	Notify 65	No information reported. Potential contamination of manhole/public well.	Low (Refer to site status; property located ½-mile to the north)
H31	Gibbs International 2201 Ventura Boulevard	0.55-miles northwest of the subject site	LUST CORTESE	Contamination limited to soil only. Signed off, remedial action completed or deemed unnecessary.	Low (Refer to site status)
H32	2201 East Ventura Boulevard	0.55-miles northwest of the subject site	CHMIRS	Contamination (waste oil) of the ground surface on May 18, 1991. Site completed on same date.	Low (Refer to site status)
33	Oxnard Truck Center 2101 East Ventura Boulevard	0.75-miles northwest of the subject site	RCRIS-SQG FINDS CA FID UST HIST UST LUST HAZNET CORTESE	Small Quantity Generator. **Disposal Method: Recycler.** LUSTs impacted soil and groundwater (waste oil). Three (3) historical USTs registered on-site.	Low (Refer to site status and *Section 3.2.1.9*)
34	Facelle Company, Inc. 800 North Rice Avenue	0.75-miles southwest of the subject site	Cal-Sites	No information reported.	Low (Refer to site status; property located greater than ½-mile to the southwest, down gradient)

35	Paper & Plastics, Inc. 940 Maulhardt Avenue	0.75-miles southwest of the subject site	LUST CORTESE	Contamination limited to soil only. Signed off, remedial action completed or deemed unnecessary.	Low (Refer to site status)
36	Maul-Graves Leasing Company 833 Maulhardt Avenue	0.75-miles southwest of the subject site	LUST CORTESE	Signed off, remedial action completed or deemed unnecessary.	Low (Refer to site status)
I37	Jones Intercable 721 Maulhardt Avenue	0.75-miles southwest of the subject site	LUST CORTESE	Signed off, remedial action completed or deemed unnecessary.	Low (Refer to site status)
J38	Maulhardt Trust/Black Gold IND 527 Rice Avenue	0.80-miles southwest of the subject site	LUST CORTESE	Contamination limited to soil only. Signed off, remedial action completed or deemed unnecessary.	Low (Refer to site status)
I39/ I40	Fred & Patti Rosenmund 700 Maulhardt Avenue	0.80-miles southwest of the subject site	CHMIRS HAZNET CORTESE	Contamination (Nitric Acid) of the ground surface on October 25, 1990. Site completed on same date. Unspecified oil-containing waste on-site. **Disposal Method: Recycler.**	Low (Refer to site status and *Section 3.2.1.9*)
J41	Santa Clara Chemical Company 521 North Rice Road	0.80-miles southwest of the subject site	Cal-Sites HAZNET	Unspecified oil-containing waste on-site. **Disposal Method: Recycler.**	Low (Refer to site status)
I42	663 Maulhardt	0.80-miles southwest of the subject site	CHMIRS	Contamination (Sulfur Acid) of the ground surface on July 17, 1990. Site completed on same date.	Low (Refer to site status)
43	Jim's Texaco 3025 Santa Clara Avenue	0.90-miles north of the subject site	LUST CORTESE	Contamination limited to soil only. Pollution Assessment Report completed.	Low (Refer to site status)

Notes: Map ID numbers match the site numbers indicated on the map of sites within one-mile radius contained within Appendix A, *EDR SEARCH*.

POTENTIAL FOR ENVIRONMENTAL CONDITION KEY:

Low Potential = Potential to create environmental condition on subject site is considered to be low for one or several factors including, but not limited to, the following:

direction of groundwater flow is away from the subject site (down gradient); remedial action is underway or completed at off-site location; distance from subject site is considered great enough to not allow the creation of a potential environment condition; only soil was affected by the occurrence; and/or reporting agency has determined no further action is necessary.

Moderate Potential = Potential to create environmental condition on subject site is considered to be moderate and further investigation may be necessary due to one or several factors including, but not limited to, the following:

occurrence reported but remedial status unknown; unable to confirm remedial action completed; proximity to subject site; groundwater flow is towards the subject site (up gradient).

High Potential = Potential to create environmental condition on subject site is considered to be high and further investigation necessary due to one or several factors including the following:

occurrence noted on-site and status if remedial action unknown; occurrence affected groundwater and is located up gradient from subject site.

4.0

POTENTIAL AREAS OF ENVIRONMENTAL CONCERN

The following section documents the results of the visual site inspection conducted by RBF on July 23, 2002 and identifies potential areas in which an environmental condition could arise. Refer to both on and off-site photographs taken on July 23, 2002 at the end of this section as a general visual reference. Also, refer to Appendix B, Documentation, for a complete set of pictures taken during the site inspection of each Area. For information regarding results of the historical and governmental records searches, refer to Section 3.0, HISTORICAL AND REGULATORY INFORMATION SEARCHES.

4.1 ON-SITE OBSERVATIONS

4.1.1 Methodology and Limiting Conditions

The objective of the site reconnaissance is to obtain information indicating the likelihood of identifying recognized environmental conditions, including hazardous substances and petroleum products in connection with the property (including soils, surface water, and groundwater). During the July 23, 2002 site inspection, RBF performed a visual observation of readily accessible areas of the subject site and immediately adjoining properties. Evidence indicating the presence of a recognized environmental condition was noted during the site inspection and is discussed in detail herein:

4.1.2 Description of On-Site Structures and/or Uses

No residential units are located within the boundaries of the subject site; however, a total of fifteen (15) structures (garages, sheds, and trailers) are present on the subject site. On-site structures and uses observed during the July 23, 2002 site inspection included the following:

General Observations

For the purposes of this analysis, the subject site is divided into seven (7) separate areas referred to as **Areas 1, 2, 3, 4, 5, 6,** and **7**. Observations in **Areas 1** through **7** are presented below:

No residential units are located within the boundaries of the subject site; however, a total of fifteen (15) structures are present on the subject site and are discussed in detail below:

Numerous 55-gallon drums, (approximately 30) were noted within the area. The 55-gallon drums appeared to be used for storage and debris as many were open and some were sealed. Approximately three (3) miscellaneous 5-gallon plastic buckets were noted around the large maintenance garage structure and appeared to contain waste-oil from on-site vehicles. Although no leakage was detected the buckets were full and uncovered/unsealed; therefore, causing concern for a material threat (accidental spill, improper storage).

Area 2: Approximately five (5) ASTs were noted within **Area 2** (northern boundary). Four (4) of these ASTs (plastic construction) appeared to be utilized for liquid fertilizer storage; one (1) AST (metal construction) was dumped on it's side and appeared to be empty. No leakage or odor was noted within regards to the ASTs located within **Area 2**. Several 55-gallon drums were stored on pallets within **Area 2**, adjacent to the Caltrans right-of-way (ROW) fence of SR-101. Drums that were sealed appeared to be full; however, the contents of the 55-gallon drums remains undefined. Unsealed 55-gallon drums appeared to be utilized as trash cans and contained miscellaneous debris. Surficial straining was noted within the immediate vicinity of the drums; no odor was present within the vicinity of the 55-gallon drums during the July 23, 2002 site inspection. This staining appeared to be associated with on-site maintenance and is considered to be minor in nature.

Area 3: Approximately nine (9) ASTs were noted within the boundaries of **Area 3** during the July 23, 2002 site inspection. Three (3) of the ASTs (black hard plastic construction) appeared to be utilized for pesticide/fertilizer storage and distribution. Three (3) of the ASTs were of metal construction and appeared to contain gasoline/diesel. According to an on-site worker within **Area 3**, the AST located on southern side of the main garage was active and used for equipment fueling. In general, the metal gasoline ASTs were small in size and adapted with trailer hitches for mobile use. Two (2) white ASTs labeled "propane" were also noted within the central/northern portion of **Area 3**. No odor was detected within regards to the propane ASTs. One (1) water tank (hard plastic construction) was noted within the central portion of the **Area 3**; interviews with on-site workers confirmed that the storage tank contained water.

Approximately seven (7) 55-gallon drums were noted within the boundaries of **Area 3**. The 55-gallon drums that were sealed appeared to be full; however, the contents of the 55-gallon drums remains undefined. Unsealed 55-gallon drums appeared to be utilized as trash cans and contained miscellaneous debris. Two (2) of the drums were attached to a mobile tractor unit and appeared to contain oil for on-site farm equipment. Light surficial straining (approximately 2-feet in diameter) was noted directly underneath the drums/trailer; however, this staining appeared to be associated with on-site maintenance and is considered to be minor in nature. In addition to 55-gallon drums, two (2) unsealed 5-gallon buckets were noted on pallets within the southwestern portion of **Area 3**. One (1) bucket appeared to consist of waste-oil, while the other consisted of white material (which appeared to be fertilizer). Although no leakage was detected, the uncovered/unsealed buckets were full, and therefore, cause concern for a material threat (accidental spill, improper storage).

Area 4: One (1) AST (clear hard plastic construction) was noted within **Area 4**. The AST appeared to be ½-full; an attached label indicated that the tank contained "Urea Ammonia Nitrate, 15-0-0". No evidence of leakage or odor was noted within regards to the AST during the July 23, 2002 site inspection. It should be noted that one (1) gasoline/diesel generator was present within the boundaries of **Area 4** during the July

23, 2002 site inspection. The on-site generator appeared to be attached to irrigation equipment; no visible evidence of leakage or odor was noted.

Area 5: Three (3) 55-gallon drums were observed within **Area 5** during the July 23, 2002 site inspection. Two (2) of the unsealed 55-gallon drums appeared to be utilized as trash cans and contained miscellaneous debris. The third 55-gallon drum was sealed and the contents remained undefined. Five (5) 5-gallon plastic buckets were noted within the eastern portion of **Area 5**; however, the buckets were sealed and no signs of leakage or odor were noted. Additionally, one (1) pesticide/fertilizer mixing truck (with three plastic ASTs aboard) was noted within the boundaries of **Area 5.**

Area 6: One (1) metal AST, which appeared to contain gasoline/diesel, was noted at **Area 6** during the July 23, 2002 site inspection. Evidence of staining was noted on the AST and immediately underneath the trailer hitch of the AST unit; however, due to the mobile nature of the AST, the surficial staining appeared to be minor.

Area 7: One (1) gasoline/diesel generator was present at **Area 7** during the July 23, 2002 site inspection. The on-site generator appeared to be attached to irrigation equipment; no evidence of leakage or odor was noted.

4.1.6 Chemical Storage Areas

Visual and physical evidence of a designated chemical storage area was observed during the July 23, 2002 site inspection. As discussed above, numerous ASTs (which contained gasoline, diesel, waste-oil, fertilizer, or pesticide) were noted within the boundaries of the subject site. However, in addition to the ASTs, special areas for chemical storage were delineated. **Area 1** consisted of one (1) metal-sided, elevated, truck trailer as the designated hazardous material storage area. According to the on-site ranch manager Mr. Brian Fukutomi, this trailer houses fertilizer and pesticide products. The trailer had a locked vertical-sliding-door, which also has hazardous materials signage. One (1) pesticide mixing area was present within **Area 1**, and immediately joined the mobile office trailer to the north. According to Mr. Fukutomi, this location is where pesticides are mixed for his portion of the subject site.

Area 3 consisted of one (1) similar storage area (truck trailer/shed), which housed hazardous materials. The **Area 3** storage trailer was locked and displayed hazardous materials signage; access to the interior of the storage trailer was restricted during the July 23, 2002 site inspection. As noted above, diesel and gasoline storage appeared to be in the appropriately designated on-site ASTs (refer to Section 4.1.5, *Chemical Storage Tanks*). One (1) pesticide/fertilizer mixing area was present within **Area 3**, near the water AST (central portion of **Area 3**). Although the ground appeared moist, this appeared to be due to water tank, which is actively used. No oil sheen or odor was noted during the July 23, 2002 site inspection.

4.1.7 Spills

No visual or physical evidence of a stained catch basins, drip pads, or sumps were observed during the July 23, 2002 site inspection. However, dark straining was noted within **Area 5**, approximately 7-feet from the northern fence. This staining was approximately 21-square feet in size and appeared to have dark, saturated surficial soils. RBF could not determine the vertical extent of the contamination (which appeared to be gasoline or oil related). It should be noted that numerous areas (primarily **Areas 1, 2, 3,** and 5) throughout the subject site had evidence of surficial staining. The majority of the staining noted within **Area 1** was on concrete foundations (near the maintenance areas); therefore, subsurface contamination is reduced. Surficial staining noted on soil areas appeared to be minor in nature and associated with regular maintenance of farm equipment (i.e. tractors, trucks, and generators). Many of the stained areas appeared to average approximately 1- to 2- feet in diameter. It should be noted that the ground surface underneath debris piles and storage areas was unaccessible during the July 23, 2002 site inspection.

4.1.8 Solid Waste Disposal

No indication of on-site solid waste disposal practices (i.e., landfills) were apparent during the July 23, 2002 site inspection. However, dumpsters and miscellaneous debris were noted primarily within **Areas 1** and **2**. Two (2) large dumpsters were noted within the northern portion of **Area 1**. The dumsters appeared to contain plastic and wood products, associated with on-site agricultural practices. Debris storage/piles (old tractor parts, equipment) were noted within the western portion of **Area 1**; minor staining (as mentioned above) was noted throughout the storage area. **Area 2** primarily consists of storage and debris piles. Specifically, **Area 2** consisted of wood pallets, old tractor/vehicle parts, one (1) AST, 55-gallon drums, vehicle batteries and rubber tires. The majority of the debris was on wood pallets; as previously mentioned, the condition of the soils underneath the debris piles were unaccessible during the July 23, 2002 site inspection.

4.1.9 Polycholiranted Biphenyls (PCBs)

Power lines and transformers were noted within the western portion of the subject site, primarily adjacent to **Area 3**. No evidence of leakage of di-electric fluid or staining was noted regarding the on-site transformers during the July 23, 2002 site inspection.

4.1.10 Utilities

Evidence and signs of utilities were noted within the boundaries of the subject site during the July 23, 2002 site inspection. In addition to electric power lines, one (1) "GTE" manhole was noted within **Area 1**. An environmental condition due to the existing on-site utilities was not apparent during the July 23, 2002 site inspection.

4.1.11 Wells

Approximately twelve (12) water wells appeared to be within the boundaries of the subject site during the July 23, 2002 inspection. The wells generally had a concrete cap around opening. The wells appeared to be associated to on-site irrigation practices. In addition to water wells, an interview with Mr. Kaihara, a Sakioka Farms Representative, indicated that six (6) former oil/gas wells are located within the boundaries of the subject site. To Mr. Kaihara's knowledge, all six (6) wells have been abandoned and capped. At the time of this Assessment, five (5) of the on-site gas/oil wells have been located and investigated. The sixth well is apparently located within the current cabbage crop (located within the northwestern portion of the subject site, but west of Del Norte Boulevard). It was noted that once the cabbage is harvested, the sixth well will be surveyed, located, and investigated. Mr. Kaihara indicated that Padre & Associates is currently providing site investigation documentation regarding the six (6) on-site wells (refer to Section 3.0, for a complete discussion).

4.1.13 Pits, Ponds, Lagoons

No evidence of pits, ponds, or lagoons were observed during the July 23, 2002 site inspection. However, one (1) detention basin/reservoir was noted within **Area 5**. The basin consisted of non-native vegetation and was void of water during the July 23, 2002 site inspection. Puddle of water were noted within the maintenance yard in Area 3; however, the puddles appeared to be associated with irrigation and washing practices. No evidence of oil sheen and/or odor was noted regarding the puddles of water or detention basin/reservoir during the July 23, 2002 site inspection.

4.1.14 Septic Systems

No evidence of septic tanks or cesspools were observed on-site during the July 23, 2002 site inspection. However, it should be noted that four (4) portable toilets were noted within the boundaries of the subject site during the July 23, 2002 site inspection.

4.2 OFF-SITE OBSERVATIONS

As previously stated in Section 2.0, *Physical Setting*, an adjoining property is considered any real property or properties that the border of which is contiguous or partially contiguous with that of the subject site, or that would be contiguous or partially contiguous with that of the subject site but for a street, road, or other public thoroughfare separating them. An adjacent property is any real property located within 0.25 miles of the subject site's border. Visual observations of the publicly accessible portions of adjoining properties were conducted on July 23, 2002 as part of this Assessment and are described below.

4.2.1 Utilities

Typical utilities (signals, street lights, power lines) were noted within the immediate boundary (along Rive Avenue and Del Norte Boulevard) of the subject site during the July 23, 2002 site inspection.

4.2.2 Tanks

No evidence of aboveground or underground storage tanks were visible within the adjoining properties during the July 23, 2002 site inspection.

4.2.3 Hazardous Materials

During a preliminary observation of accessible adjoining properties on July 23, 2002, no visible or physical evidence was observed to suggest that a surface release of petroleum based material has recently occurred. No unusual or suspicious materials handling or storage practices were observed with respect to adjacent properties. However, it should be noted that industrial uses adjoin the subject site to the south. Access to adjoining properties was restricted during the July 23, 2002 site inspection; therefore, exact uses and operations could not be defined. Refer to Section 3.2, for a complete discussion of surrounding properties via the *EDR Database Search*.

View looking south from Area 1.

Main storage shed located within Area 1 (view looking west).

View looking at on-site above ground storage tanks (ASTs) located within Area 1.

View looking north at Area 2 (adjoins SR-101 and Caltrans right-of-way).

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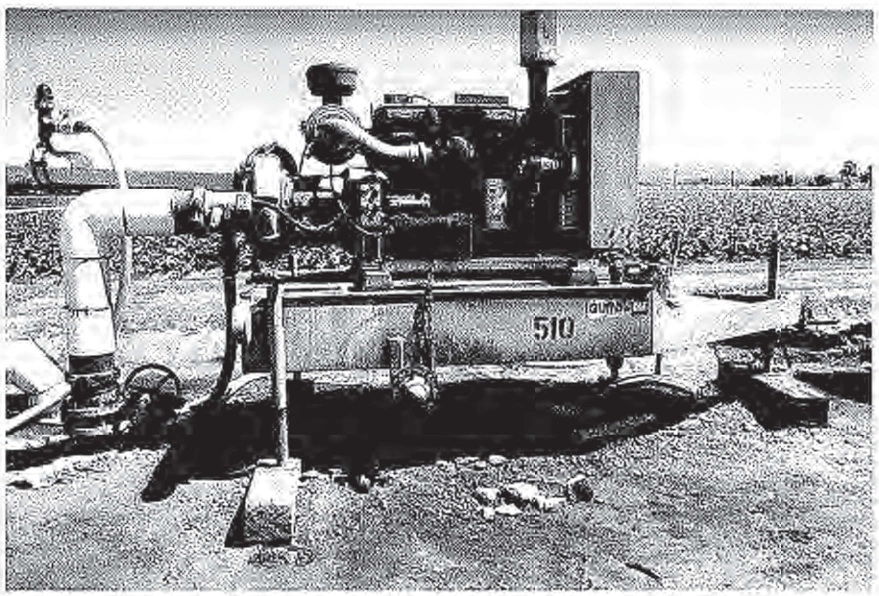
SAKIOKA FARMS 427-ACRE SITE • PHASE 1 ESA

On-Site Photographs

Exhibit 4A

View looking southwest at Area 3.

View looking northwest towards the on-site AST and storage shed located within Area 3.



View looking north towards an on-site generator and current agriculture harvest (Area 4).

Typical view of the on-site detention basin (Area 5).

SAKIOKA FARMS 427-ACRE SITE • PHASE 1 ESA

On-Site Photographs

Exhibit 4B

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View looking at adjoining land uses to the north (along Ventura Boulevard).

View of industrial uses located to the south of the subject site.

View looking at agricultural and commercial uses to the east.

View looking at the Rice Avenue / Gonzales Road intersection located to the west.

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Off-Site Photographs

Exhibit 5

5.0

FINDINGS, OPINIONS, AND RECOMMENDATIONS

RBF has performed a Phase I Environmental Site Assessment in conformance with the Scope-of-Services and limitations of ASTM Standard Practice E 1527-00 within four (4) parcels (approximately 427-acres) (APNs 216-0-030-065, 216-0-030-075, 216-0-030-085, and 216-0-030-105*) located within the City of Oxnard, County of Ventura; also known as the subject site within this Assessment. Any exceptions to, or deletions from, this practice are described in Section 1.0, INTRODUCTION, of this report. This Assessment has revealed the following in connection with the subject site.*

5.1 FINDINGS

5.1.1 Site Conditions

Evidence of recognized environmental conditions within the boundary of the subject site were observed during the July 23, 2002 site inspection which consisted of the following:

Several areas within the boundaries of the subject site were noted to contain various materials that have been identified as a source for creating a potential recognized environmental condition. These areas consist of existing aboveground storage tanks, several 55-gallon drums, unsealed 5-gallon buckets (that were observed to contain waste-oil), pesticide mixing areas, stained soils, abandoned vehicle equipment (old tractors), and miscellaneous debris during the July 23, 2002 site inspection.

Area 1: Approximately seven (7) ASTs were noted within **Area 1** during the July 23, 2002 site inspection. The on-site tanks appeared to be used for different purposes; four (4) of the of the ASTs were elevated above a concrete foundation and appeared to store diesel or gasoline. The ASTs varied in size and petroleum odors were present. Although staining was observed, it appeared to be limited to the to the concrete pad. Two (2) of the ASTs appeared to contain gaseous mixtures such as oxygen and/or propane. One (1) of these tanks (which appeared to be a propane tank) was located near the diesel ASTs located on the eastern portion of the on-site structure. The second tank was smaller in size and was noted within the large on-site garage structure near the workbench area. The final AST was noted near the pesticide mixing area, immediately west of the mobile office trailer. The AST was elevated as it was situated on top of approximately seventeen (17) stacked pallets, of which were stacked on bare soil. RBF could not determine the contents of the AST during the July 23, 2002 site inspection. Minor staining was noted within the general work area of the AST, pesticide mixing area, equipment storage area, and garage. This staining appeared to be associated with on-site maintenance, was primarily limited to concrete portions of the **Area**, and is considered to be minor in nature.

Numerous 55-gallon drums, (approximately 30) were noted within the area. The 55-gallon drums appeared to be used for storage and debris as many were open and some were sealed. Approximately three (3) miscellaneous 5-gallon plastic buckets were noted around the large maintenance garage structure and appeared to contain waste-oil from on-site vehicles. Although no leakage was detected the buckets were full and uncovered/unsealed; therefore, causing concern for a material threat (accidental spill, improper storage).

As previously mentioned, one (1) pesticide mixing area was present within **Area 1**, which immediately joined the mobile office trailer to the north. According to an on-site interview with Mr. Fukutomi, this location is where pesticides are mixed for his portion of the subject site.

Area 2: Approximately five (5) ASTs were noted within **Area 2** (northern boundary). Four (4) of these ASTs (plastic construction) appeared to be utilized for liquid fertilizer storage; one (1) AST (metal construction) was dumped on it's side and appeared to be empty. No leakage or odor was noted within regards to the ASTs located within **Area 2**. Several 55-gallon drums were stored on pallets within **Area 2**, adjacent to the Caltrans right-of-way fence and SR-101. Drums that were sealed appeared to be full; however, the contents of the 55-gallon drums remains undefined. Unsealed 55-gallon drums appeared to be utilized as trash cans and contained miscellaneous debris. Surficial straining was noted within the immediate vicinity of the drums; no odor was present within the vicinity of the 55-gallon drums during the July 23, 2002 site inspection. This staining appeared to be associated with on-site maintenance and is considered to be minor in nature.

Area 3: Approximately nine (9) ASTs were noted within the boundaries of **Area 3** during the July 23, 2002 site inspection. Three (3) of the ASTs (black hard plastic construction) appeared to be utilized for pesticide/fertilizer storage and distribution. Three (3) of the ASTs were of metal construction and appeared to contain gasoline/diesel. According to an on-site worker within **Area 3**, the AST located on southern side of the main garage was active and used for equipment fueling. In general, the metal gasoline ASTs were small in size and adapted with trailer hitches for mobile use. Two (2) white ASTs labeled "propane" were also noted within the central/northern portion of **Area 3.** No odor was detected within regards to the propane ASTs. One (1) water tank (hard plastic construction) was noted within the central portion of the **Area 3**; interviews with on-site workers confirmed that the storage tank contained water.

Approximately seven (7) 55-gallon drums were noted within the boundaries of **Area 3**. The 55-gallon drums that were sealed appeared to be full; however, the contents of the 55-gallon drums remains undefined. Unsealed 55-gallon drums appeared to be utilized as trash cans and contained miscellaneous debris. Two (2) of the drums were attached to a mobile tractor unit and appeared to contain oil for on-site farm equipment. Light surficial straining (approximately 2-feet in diameter) was noted directly underneath the drums/trailer; however, this staining appeared to be associated with on-site maintenance and is considered to be minor in nature. In addition to 55-gallon drums, two (2) unsealed 5-gallon buckets were noted on pallets within the southwestern portion of **Area 3**. One (1) bucket appeared to consist of waste-oil, while the other consisted of white material (which appeared to be fertilizer). Although no leakage was detected, the uncovered/unsealed buckets were full, and therefore, cause concern for a material threat (accidental spill, improper storage).

One (1) pesticide/fertilizer mixing area was present within **Area 3**, near the water AST (central portion of **Area 3**). Although the ground appeared moist, this appeared to be due to water tank, which is actively used. No oil sheen or odor was noted during the July 23, 2002 site inspection.

Area 4: One (1) AST (clear hard plastic construction) was noted within **Area 4**. The AST appeared to be ½-full; an attached label indicated that the tank contained "Urea Ammonia Nitrate, 15-0-0". No evidence of leakage or odor was noted within regards to the AST during the July 23, 2002 site inspection. It should be noted that one (1) gasoline/diesel generator was present within the boundaries of **Area 4** during the July 23, 2002 site inspection. The on-site generator appeared to be attached to irrigation equipment; no visible evidence of leakage or odor was noted.

Area 5: Three (3) 55-gallon drums were observed within **Area 5** during the July 23, 2002 site inspection. Two (2) of the unsealed 55-gallon drums appeared to be utilized as trash cans and contained miscellaneous debris. The third 55-gallon drum was sealed and the contents remained undefined. Five (5) 5-gallon plastic buckets were noted within the eastern portion of **Area 5**; however, the buckets were sealed and no signs of leakage or odor were noted. Additionally, one (1) pesticide/fertilizer mixing truck (with three plastic ASTs aboard) was noted within the boundaries of **Area 5**. Dark straining was noted within **Area 5**, approximately 7-feet from the northern fence. This staining was approximately 21-square feet in size and appeared to have dark, saturated surficial soils. RBF could not determine the vertical extent of the contamination (which appeared to be gasoline or oil related).

Area 6: One (1) mobile AST, which appeared to contain gasoline/diesel, was noted at **Area 6** during the July 23, 2002 site inspection. Evidence of minor staining was noted on the AST and immediately underneath the trailer hitch. The staining appeared to be minor in nature.

Area 7: One (1) gasoline/diesel generator was present at **Area 7** during the July 23, 2002 site inspection. The on-site generator appeared to be attached to irrigation equipment; no visible evidence of leakage or odor was noted.

An interview with Mr. Kaihara, a Sakioka Farms Representative, indicated that six (6) former oil/gas wells are located within the boundaries of the subject site. To Mr. Kaihara's knowledge, all six (6) wells have been abandoned and capped. At the time of this Assessment, five (5) of the on-site gas/oil wells have been located and investigated. The sixth well is apparently located within the current cabbage crop (located within the northwestern portion of the subject site, but west of Del Norte Boulevard). It was noted that once the cabbage is harvested, the sixth well will be surveyed, located, and investigated. Mr. Kaihara also indicated that Padre & Associates is currently providing site investigation documentation regarding the six (6) on-site wells (refer to Section 3.0, for a complete discussion).

5.1.2 Public Records

Available public records were reviewed by Environmental Data Resources, Inc. (EDR) on July 3, 2002 (refer to Section 3.0, *Historical and Regulatory Information Searches*). The purpose of this research was to verify if sites are located within the subject site boundaries or within a one-mile radius of the subject site which have been reported as contaminated or that generate hazardous materials. The lists which were reviewed identified no listed regulatory sites are reported within the boundary of the subject site and thirty-one (31) listed regulatory sites within a one-mile radius of the subject site. As documented in Section 3.0, none of the identified sites appear to be a potential environmental concern with regards to the subject site due to their location and distance from the subject site; their status, if reported; and/or gradient of groundwater flow.

5.1.3 Historic Recognized Environmental Condition(s)

A ***"historic recognized environmental condition"*** (HREC) is defined as a condition which in the past would have been considered a REC, but which may or may not be considered a REC currently. HRECs are generally conditions which have in the past been remediated to the satisfaction of the responsible regulatory agency. Based on this definition, no HRECs were identified within the boundaries of the subject site.

5.1.4 Historical Use(s) Information

Based upon the site inspection, review of available historical aerial photographs, and interviews, the potential that adverse environmental conditions were created by historical on-site activities are present. Due to the fact the majority of the subject site has been used for agricultural purposes for several decades a combination of several commonly used pesticides which are now banned may have been used throughout the subject site (refer to Section 5.2, *Consultant's Opinion/Recommendations*). It should be noted that the historical use of agricultural pesticides may have resulted in pesticide residues of certain persistent in soil at concentrations that are considered to be hazardous according to established Federal regulatory levels. The primary concern with historical pesticide residues is human health risk from inadvertent ingestion of contaminated soil, particularly by children.

5.1.5 Other Potential Sources of Hazardous Material

The presence of hazardous materials on the subject site that may have been generated from adjacent properties was not visually or physically evident.

5.2 Consultant's Opinion/Recommendation

The following opinions are based upon review of reasonable ascertainable referenced material available to RBF during the preparation of this Assessment which included files provided by the County of Ventura, historical aerial photographs, historical topographic maps, regulatory databases, interviews, and a site inspection.

- While there is no requirement that agricultural soil be tested prior to development, many developers and lenders throughout the states are requiring that sites proposed for development undergo an evaluation of environmental conditions. Thus, with this information disclosed, it is concluded that the client must determine if they wish to pursue additional environmental review (i.e., Phase II) to determine the absence or presence of pesticide residues, and if present, how this soils would be handled (i.e., Risk Assessment). Sampling for elevated levels of pesticide concentrations is further warranted based on the interviews conducted during the course of this Assessment which indicated pesticide mixing areas on-site (within **Areas 1** and **3**).

- The subject site adjoins SR-101 to the north. Specifically, the subject site is within approximately ten (10) feet from the edge of pavement of SR-101. Due to the age of SR-101 and volumes of vehicles which have utilized this facility, there is the potential that lead contamination exists within exposed soils on the northern boundary of the subject site, which could potentially be released into the air during construction activities.

- Based upon the year the existing structures located on the subject site were built (prior to 1978), lead-based paint may be present within the existing on-site structures and would need to be handled properly prior to remodeling or demolition activities. It is RBF's opinion that asbestos issues are unlikely to be present within the on-site structures as the structures are of wood or metal construction, and contain no insulation, tile flooring, or friable materials. No residential uses are located within the boundaries of the subject site.

5.3 Formal Recommendations

Based on the records and other data reviewed during the preparation of this Phase I Environmental Site Assessment, in accordance with ASTM Standard Practice E 1527-00 and the scope-of-services, and subject to the limitations thereof, the following measures are recommended:

5.3.1 Global Site Recommendations

- All miscellaneous vehicles, maintenance equipment and materials (i.e., fertilizer, lubricants, grease), construction/irrigation materials, miscellaneous stockpiled debris, dumpsters, pesticide application equipment, aboveground storage tanks, 55-gallon drums, and 5-gallon buckets should be removed off-site and properly disposed of. Once removed, a visual inspection of the areas beneath the removed materials should be performed. Any stained soils observed underneath the removed materials should be sampled. Results of the sampling (if necessary) would indicate the level of remediation efforts that may be required.

- The storage and debris piles (irrigation piping, old vehicle parts, pallets, tires, 55-gallon drums) identified within **Areas 1**, **2**, and **3** should be removed from the property and properly disposed of. Once removed, a visual inspection of the areas beneath the removed materials should be performed. Any stained soils observed underneath the removed materials should be sampled. Results of the sampling (if necessary) would indicate the level of remediation efforts that may be required.

- A visual inspection of the interior of all storage structures is recommended. In the event that hazardous materials are encountered it should be properly tested and then properly disposed of pursuant to State and Federal regulations.

5.3.2 Soil Sampling

- Due to visible evidence of dark surface soil staining of oil/petroleum products located within **Area 5** (immediately north of the maintenance yard fence) soil should be excavated to determine the exact vertical extent of the contamination. If during soil removal, straining (evidence of petroleum products) appears to continue below the ground surface, sampling should be performed characterize the extent of contamination and identify appropriate remedial measures.

- The majority of the subject site has been utilized for agricultural purposes, for several decades and may contain pesticide residues in the soil. Soil sampling should occur throughout the subject site, including the pesticide mixing areas (within **Areas 1** and **3**). The sampling will determine if pesticide concentrations exceed established regulatory requirements and will identify proper handling procedures that may be required.

- Areas of exposed soils five (5) feet from the Caltrans Right-of-Way, which will be disturbed during any excavation/grading activities, should be sampled and tested for lead.

5.3.3 Oil/Gas Wells

Six (6) oil/gas wells are located within the boundaries of the subject site. Padre & Associates is currently in the process of conducting investigations with respect to the former wells, specifically regarding residual soil contaminants (i.e., hydrocarbons) associated with the historical operation of oil/gas extraction wells. Once completed, Padre & associates' findings should be reviewed and appropriate remedial recommendations (if any) should be administered. In addition to recommendations provided by Padre & Associates, it is recommended that the California Department of Oil, Gas, and Geothermal Resources (DOGGR) well abandonment procedures be followed and formal verification of "closure" be received from DOGGR.

5.3.4 Lead-Based Paint

If during demolition of the structures, paint is separated from the building material (e.g., chemically or physically), the paint waste should be evaluated independently from the building material to determine its proper management. According to the Department of Substances Control, if paint is not removed from the building material during demolition (and is not chipping or peeling), the material could be disposed of as construction debris (a non-hazardous waste). It is recommended that the landfill operator be contacted in advance to determine any specific requirements they may have regarding the disposal of lead-based paint materials.

5.3.5 Radon

Since the subject site is in a zone with a high potential for radon levels greater than 4.0 Picocuries per liter (pCi/L), it is recommended that the client employ radon resistant features/materials in any new construction if required by the City or County.

5.3.6 Demolition/Construction Activities

If unknown wastes or suspect materials are discovered during construction by the contractor which he/she believes may involve hazardous waste/materials, the contract shall:

- Immediately stop work in the vicinity of the suspected contaminant, removing workers and the public from the area;
- Notify the Project Engineer of the implementing Agency;
- Secure the area a directed by the Project Engineer; and
- Notify the implementing agency's Hazardous Waste/Materials Coordinator

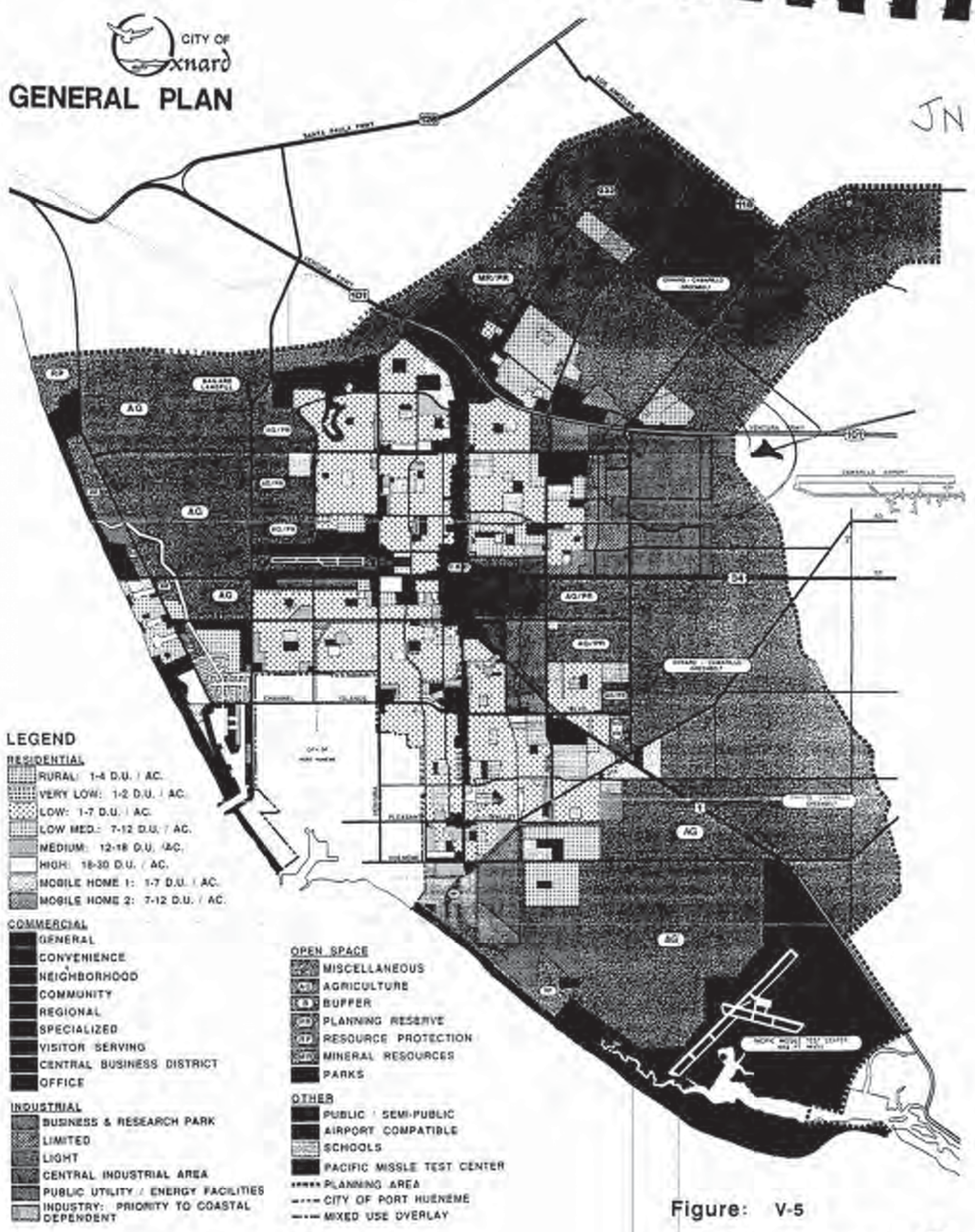
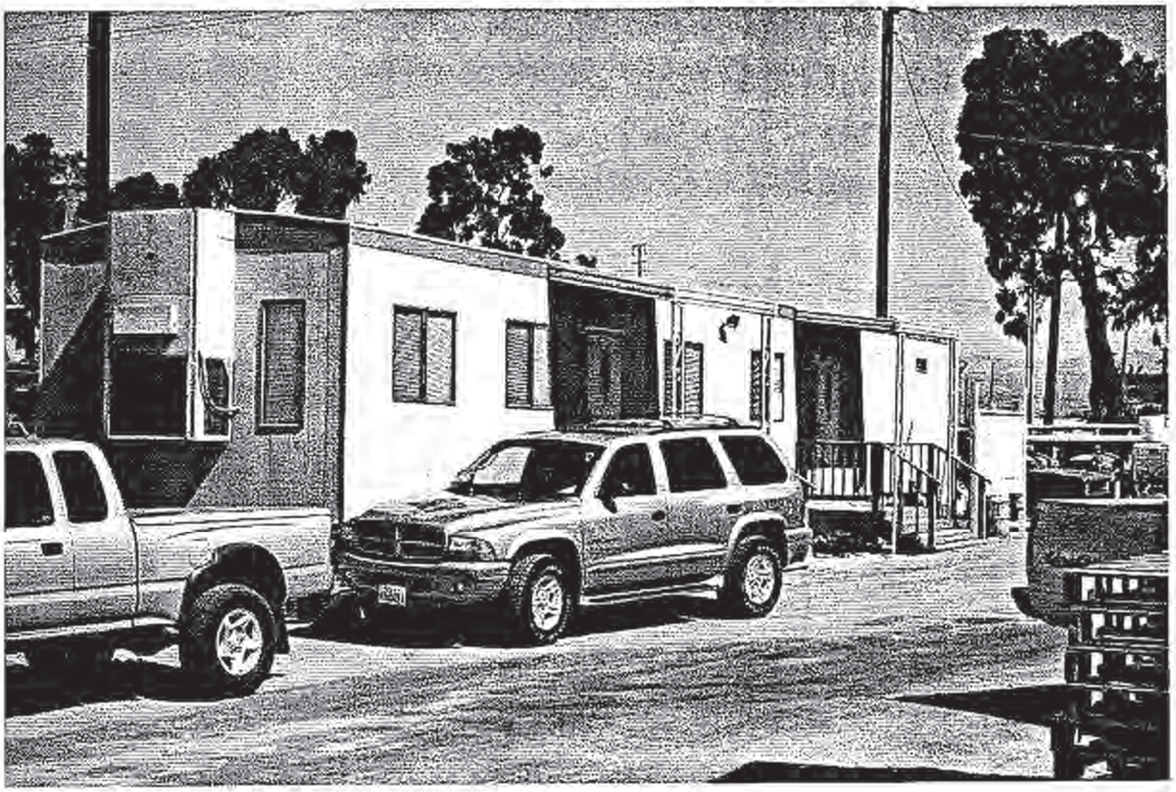
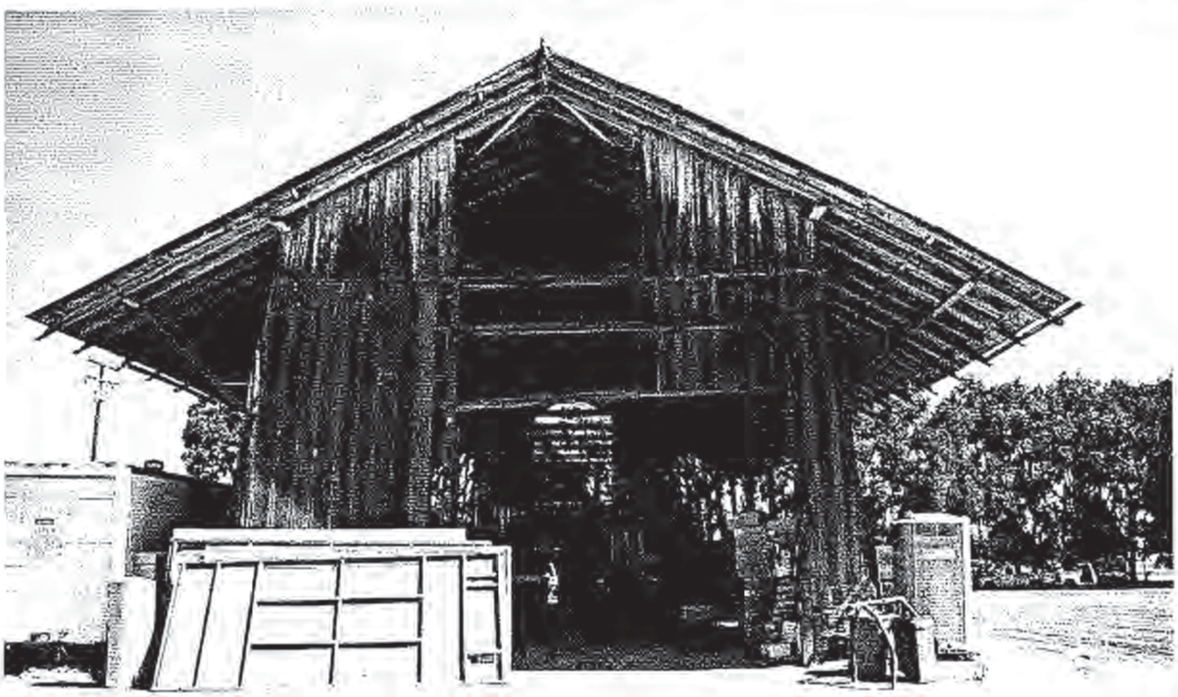


Figure: V-5

2020 LAND USE MAP

AREA 1



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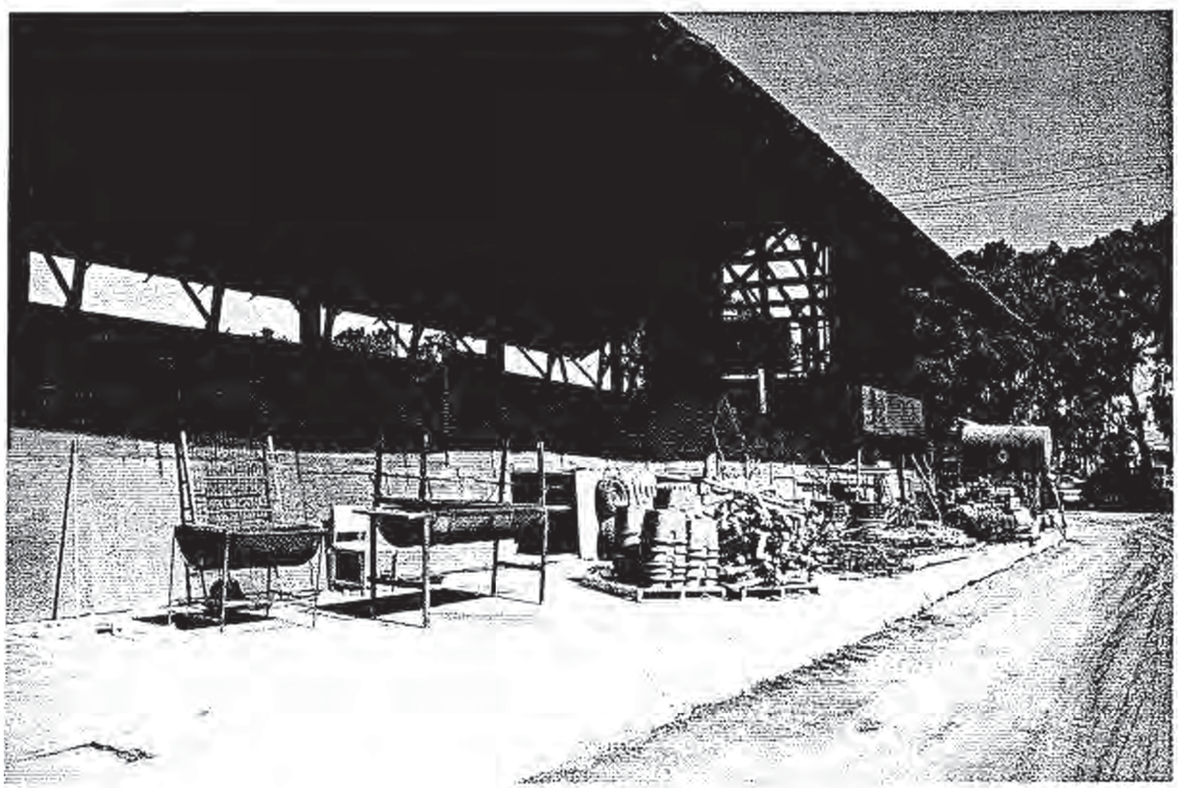

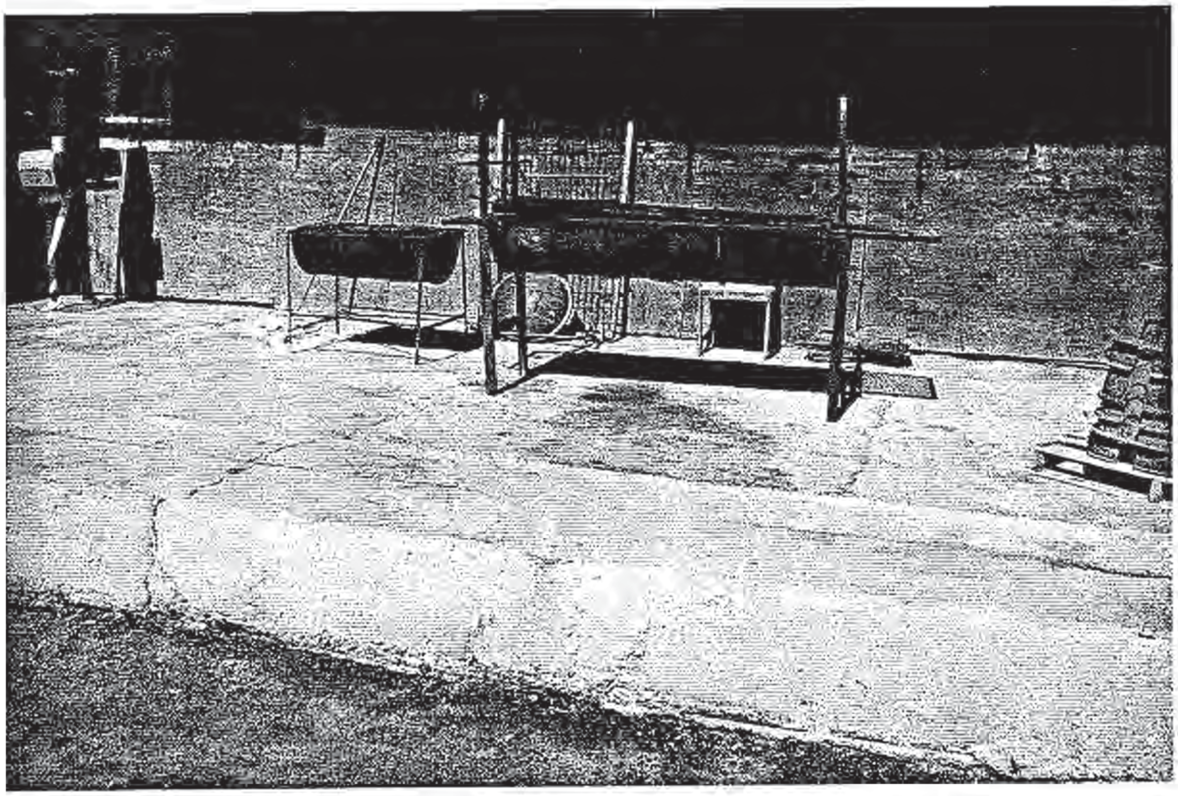

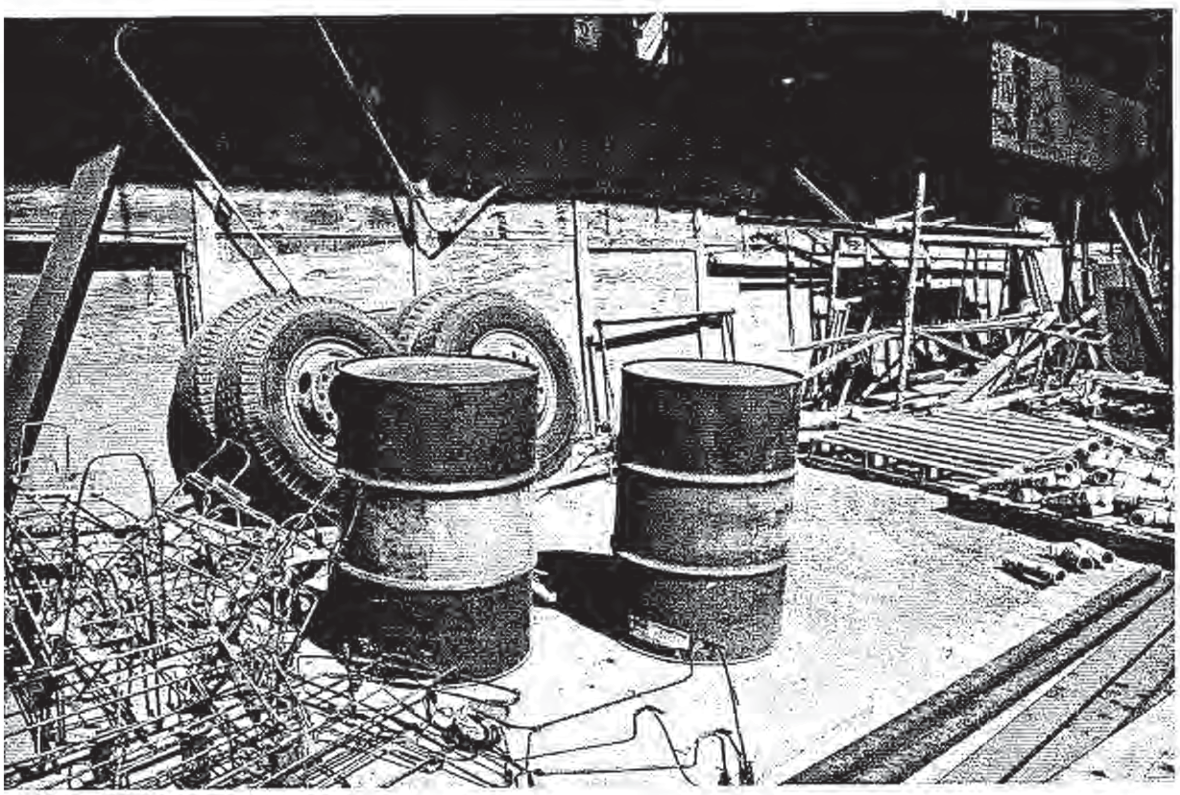

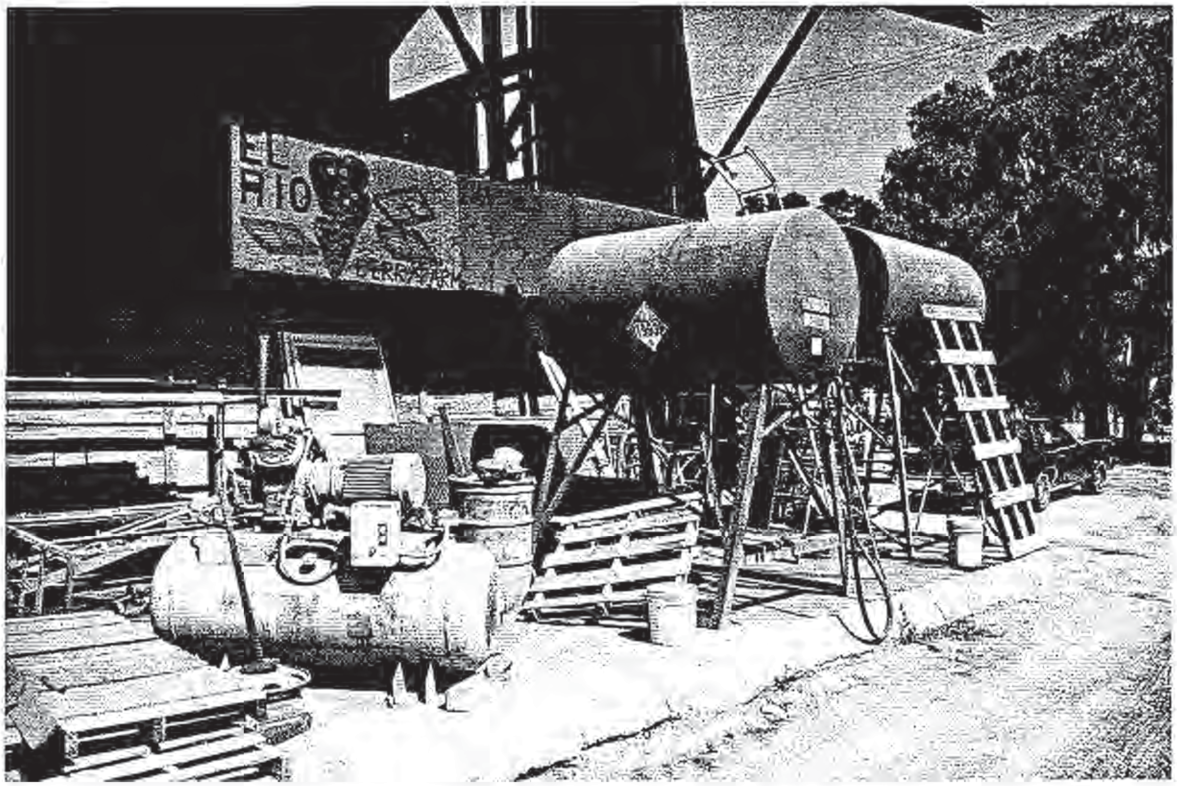
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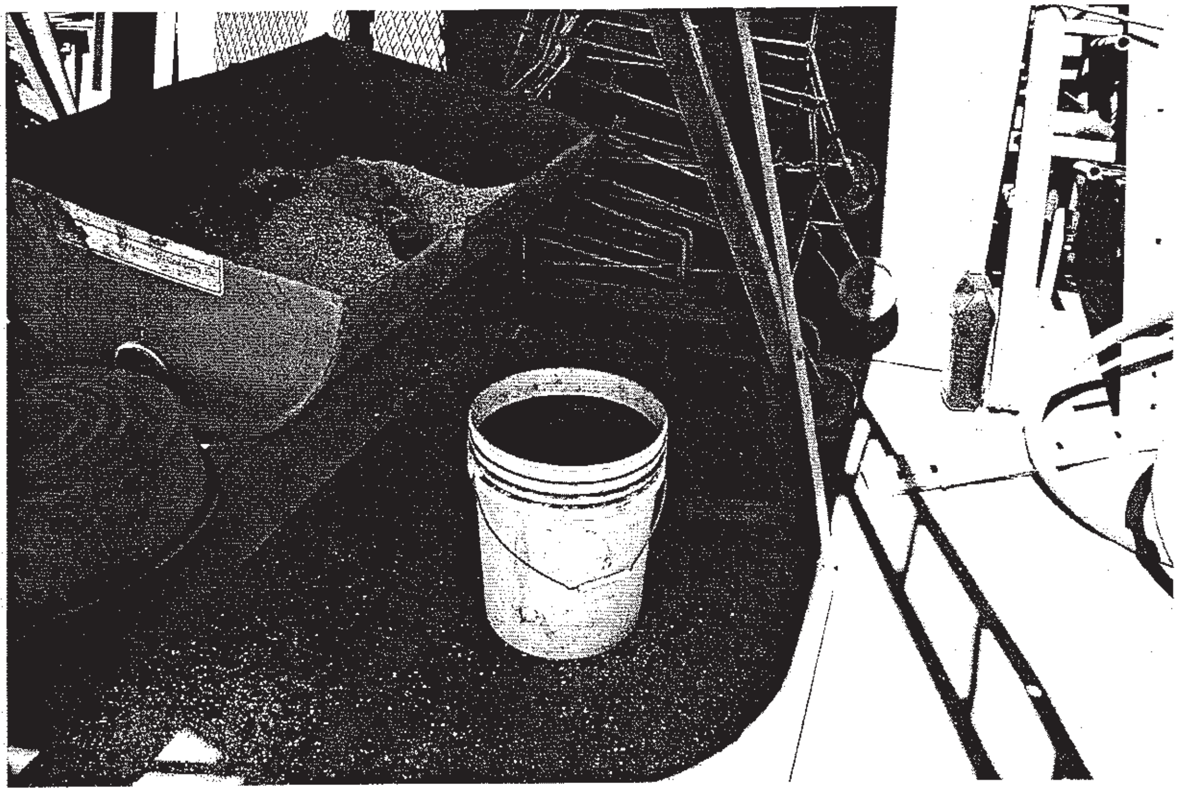

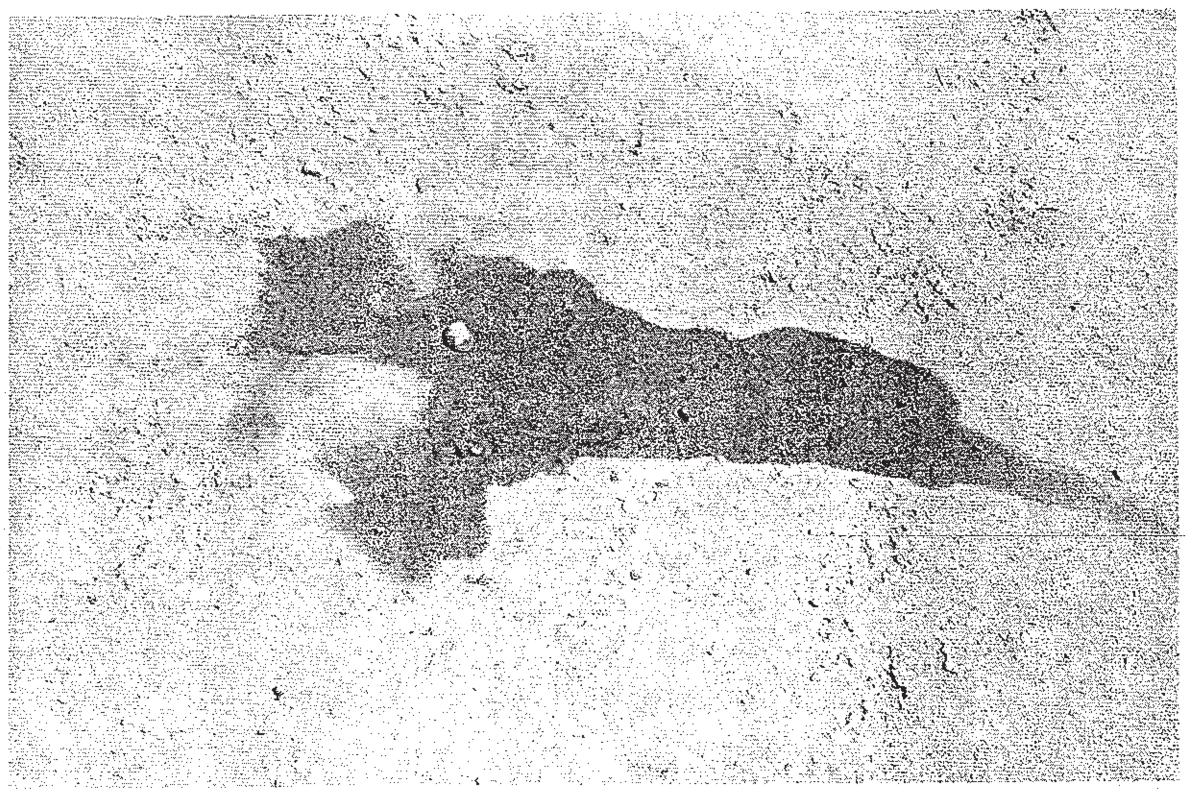

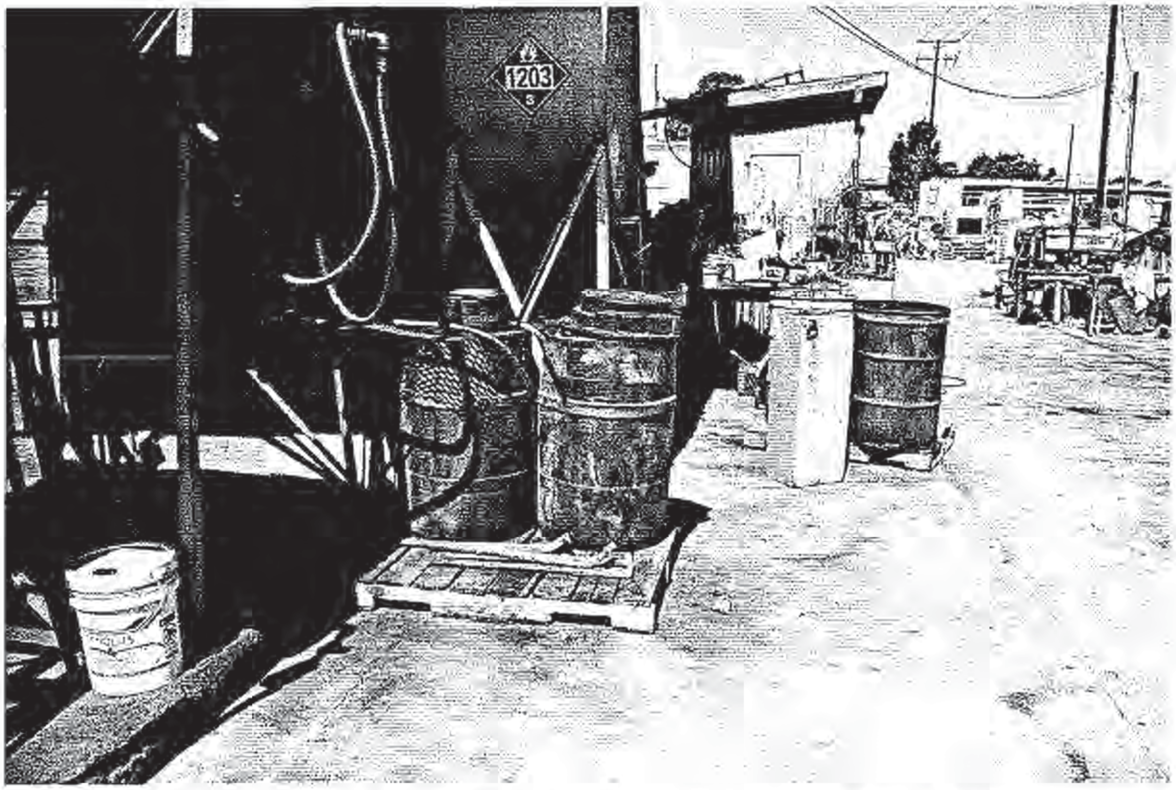
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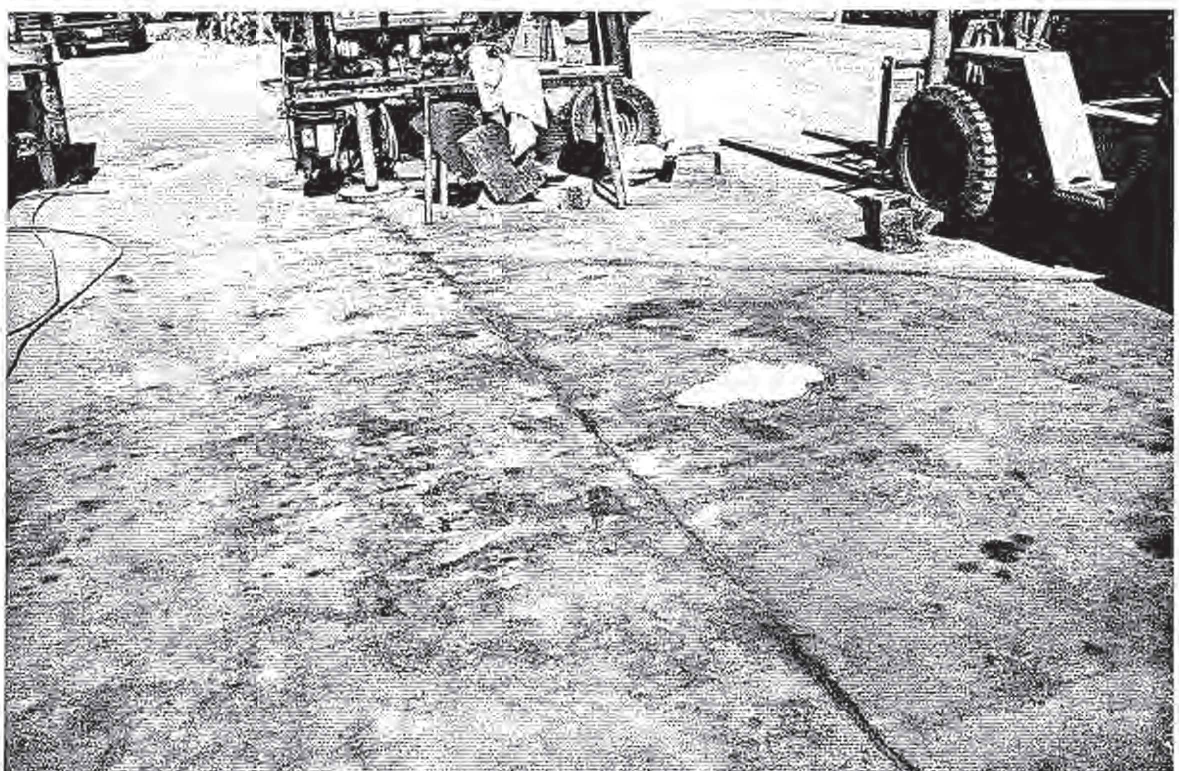
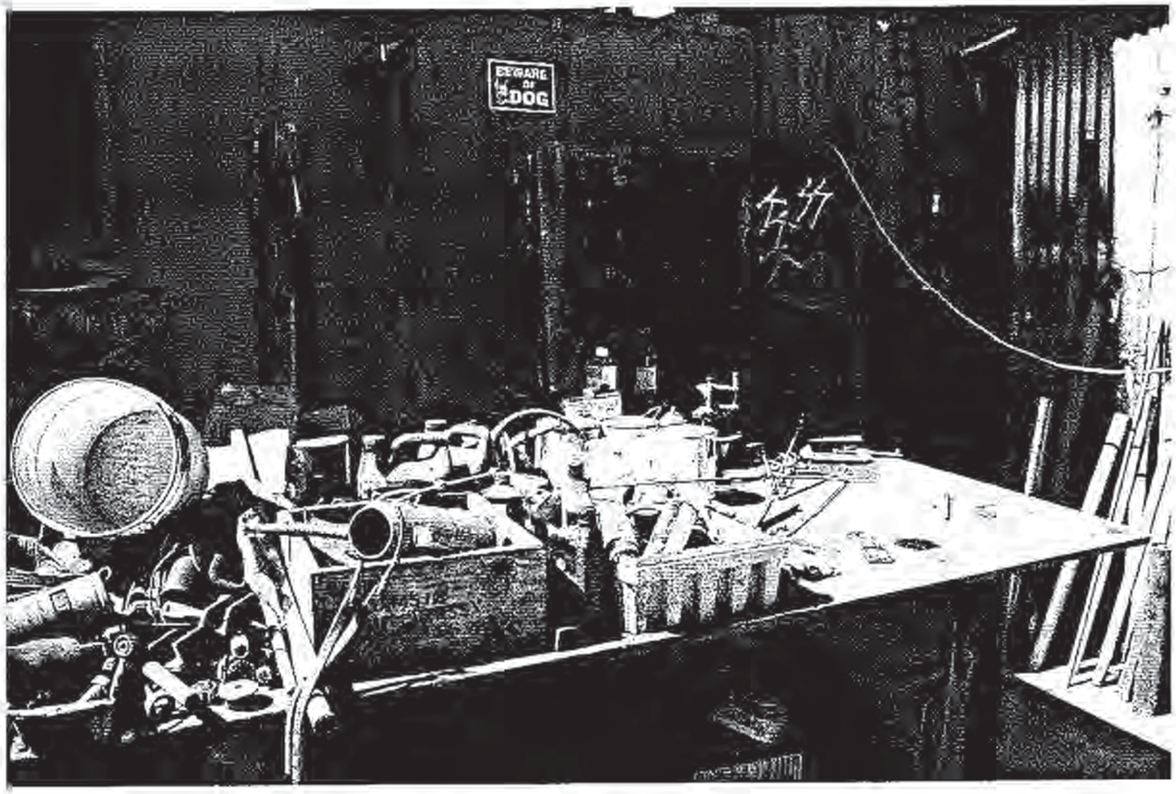
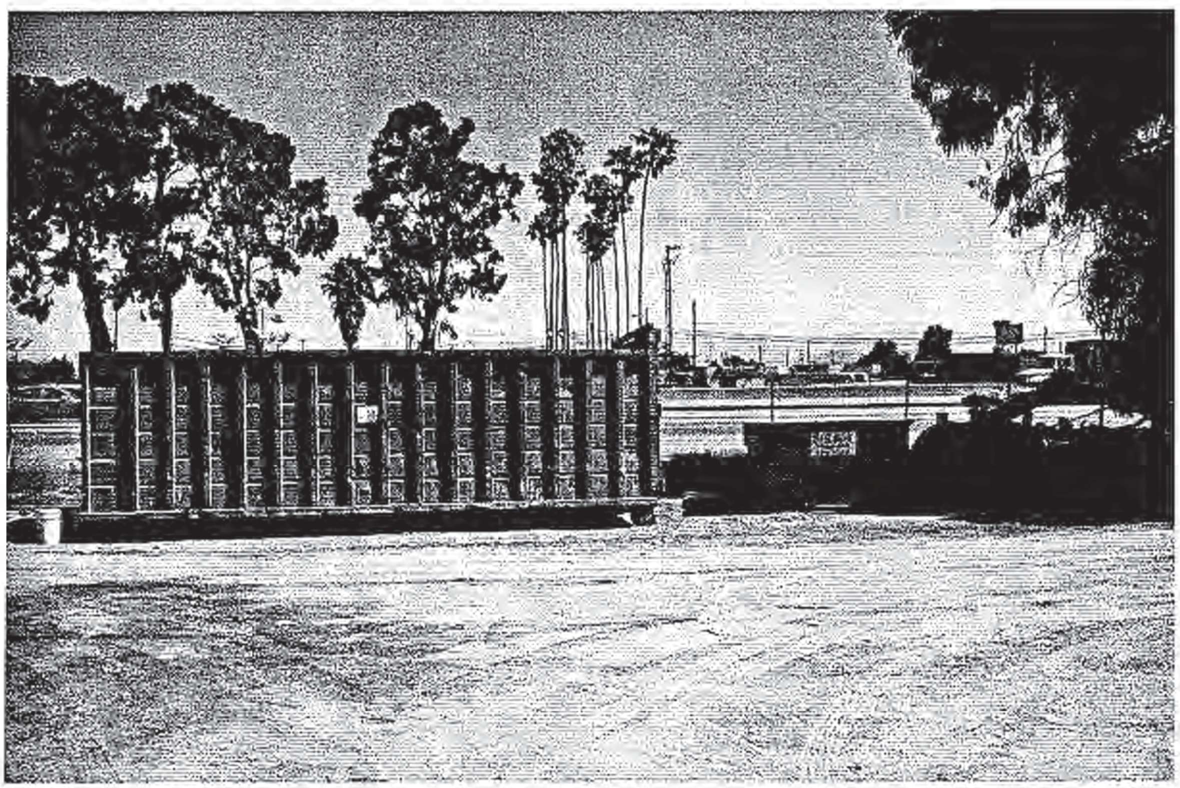
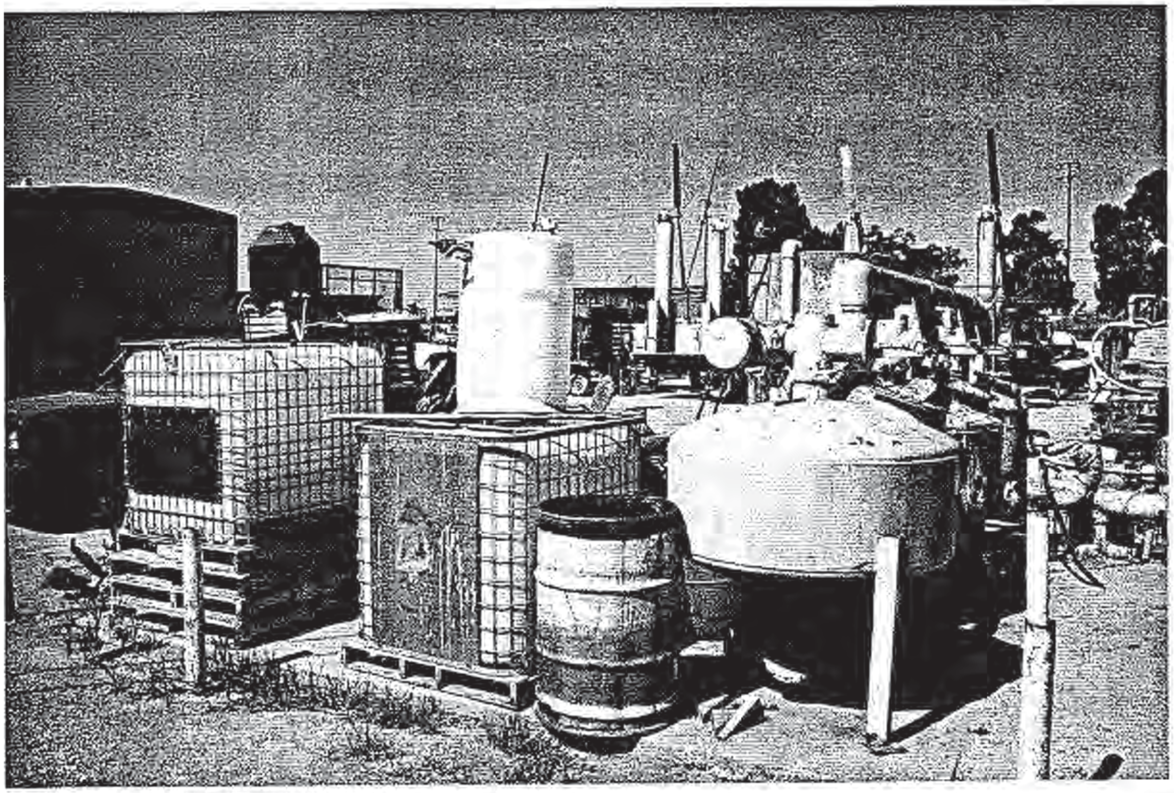
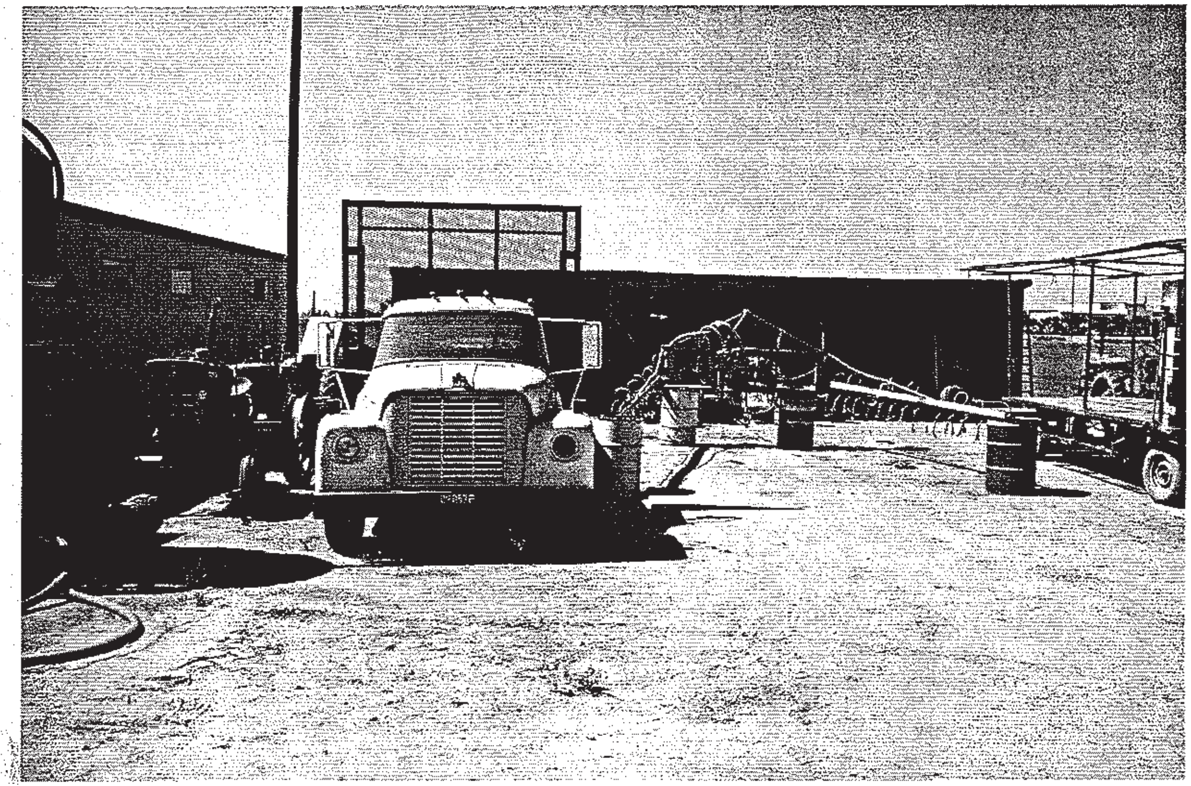


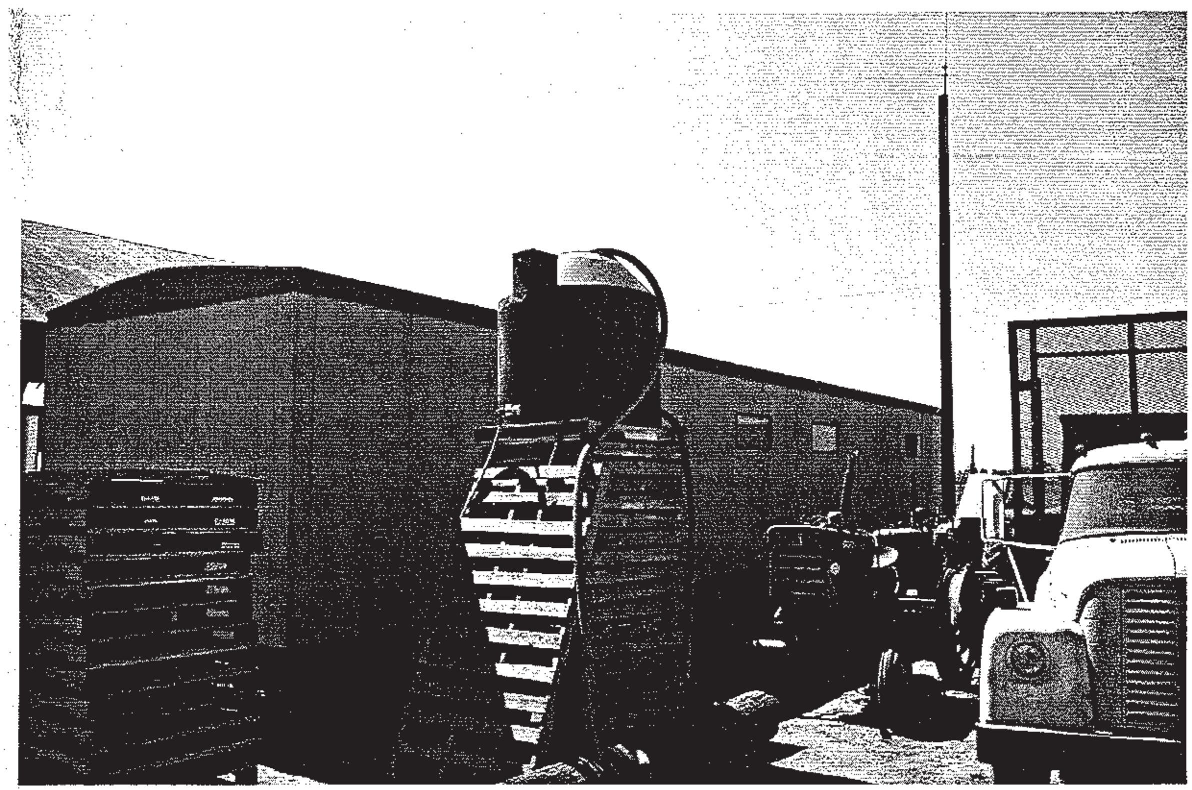

BEWARE
OF
DOG

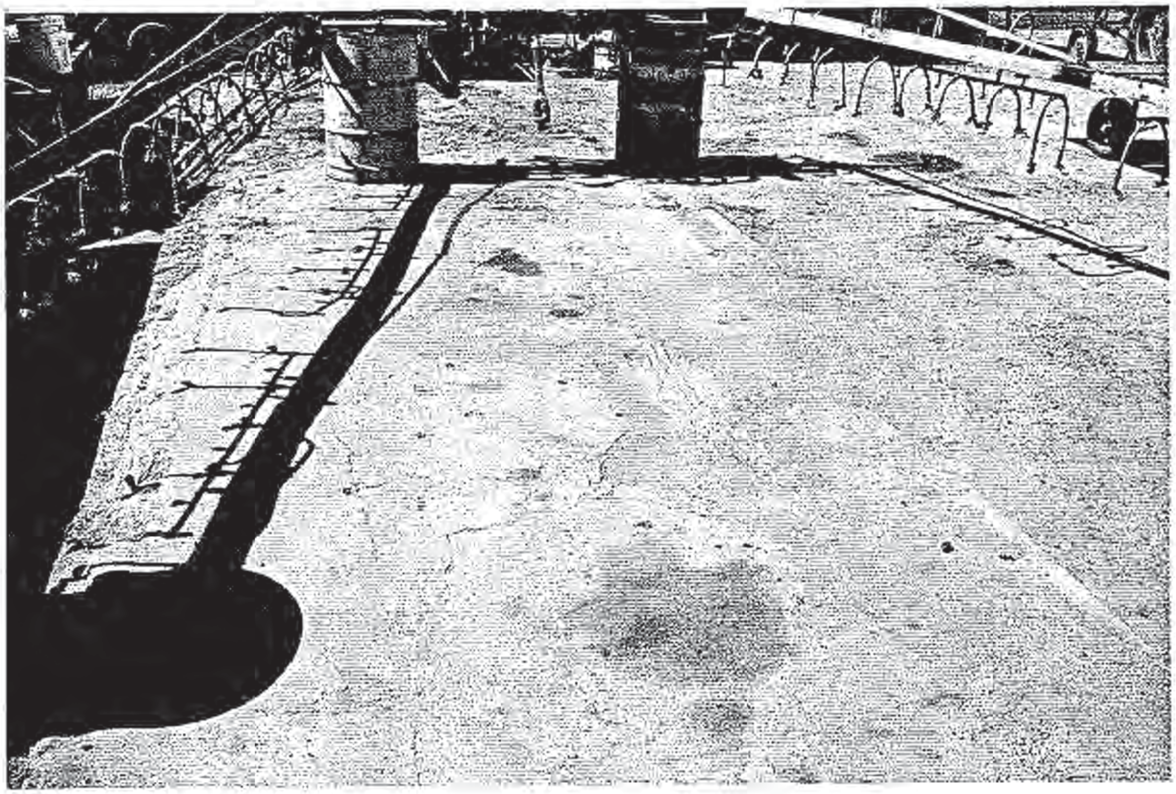

NO SMOKING

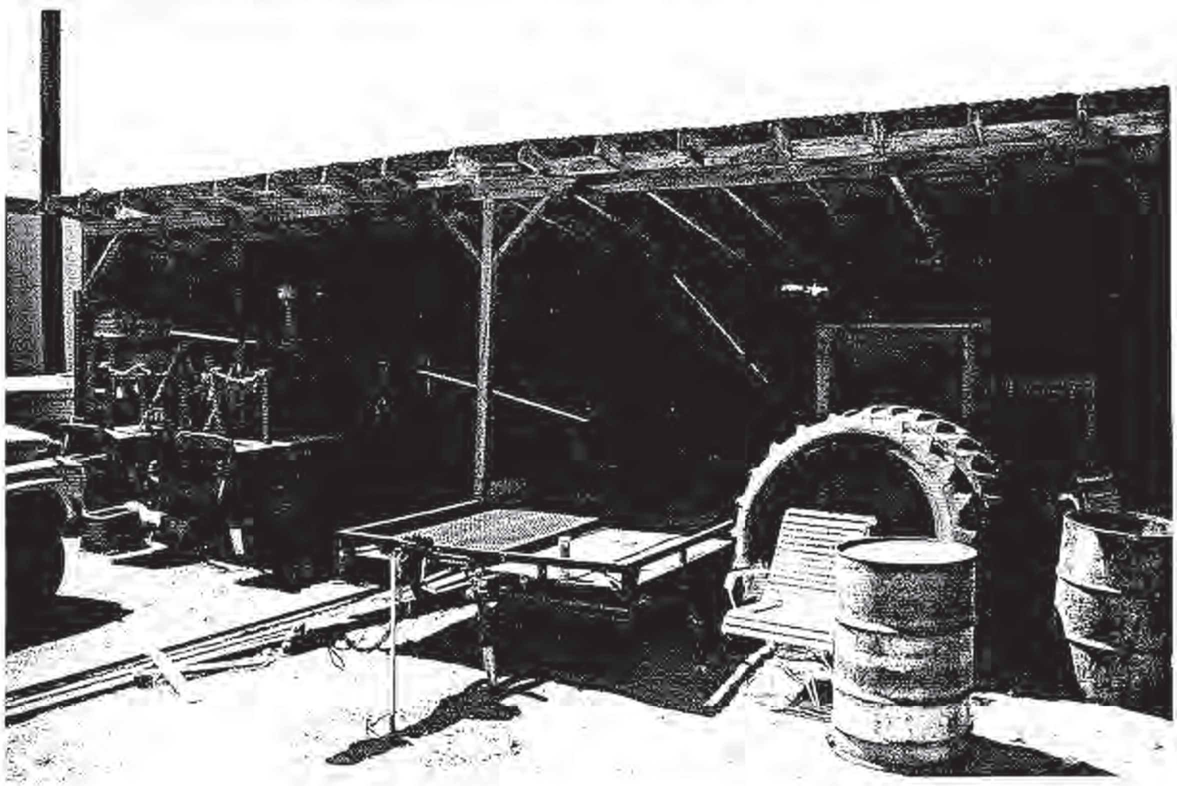








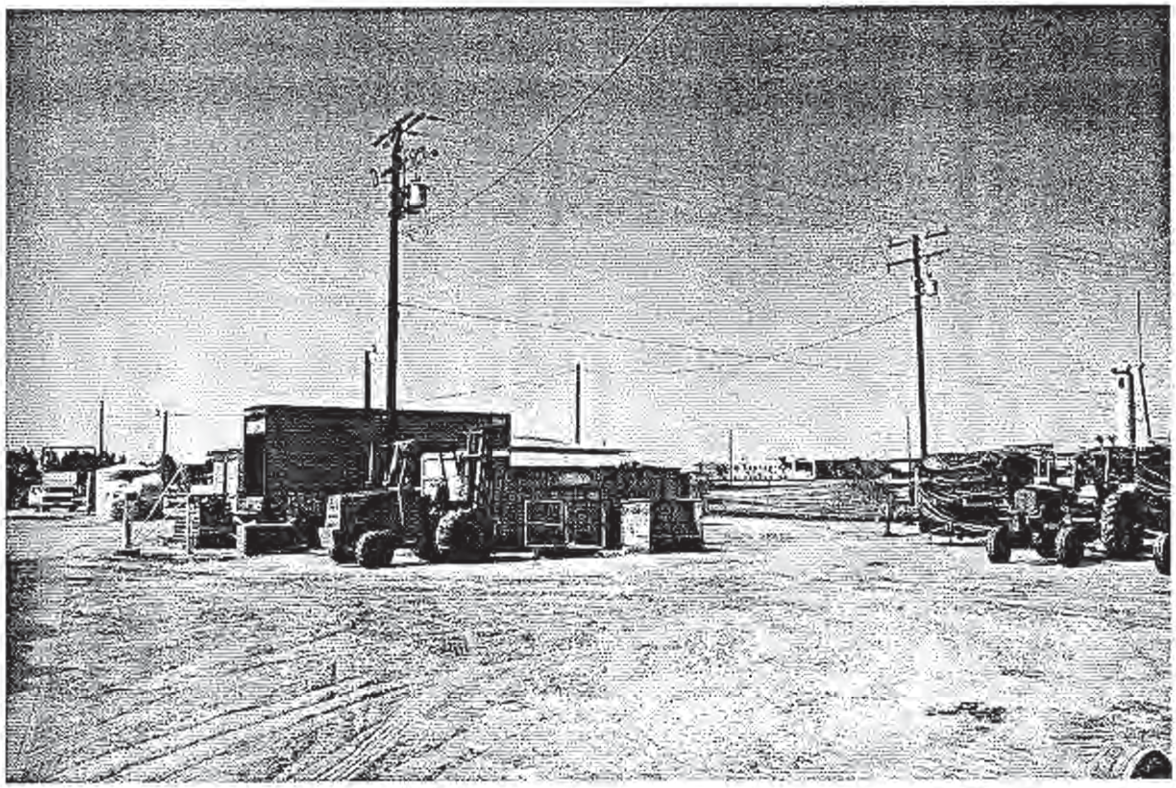


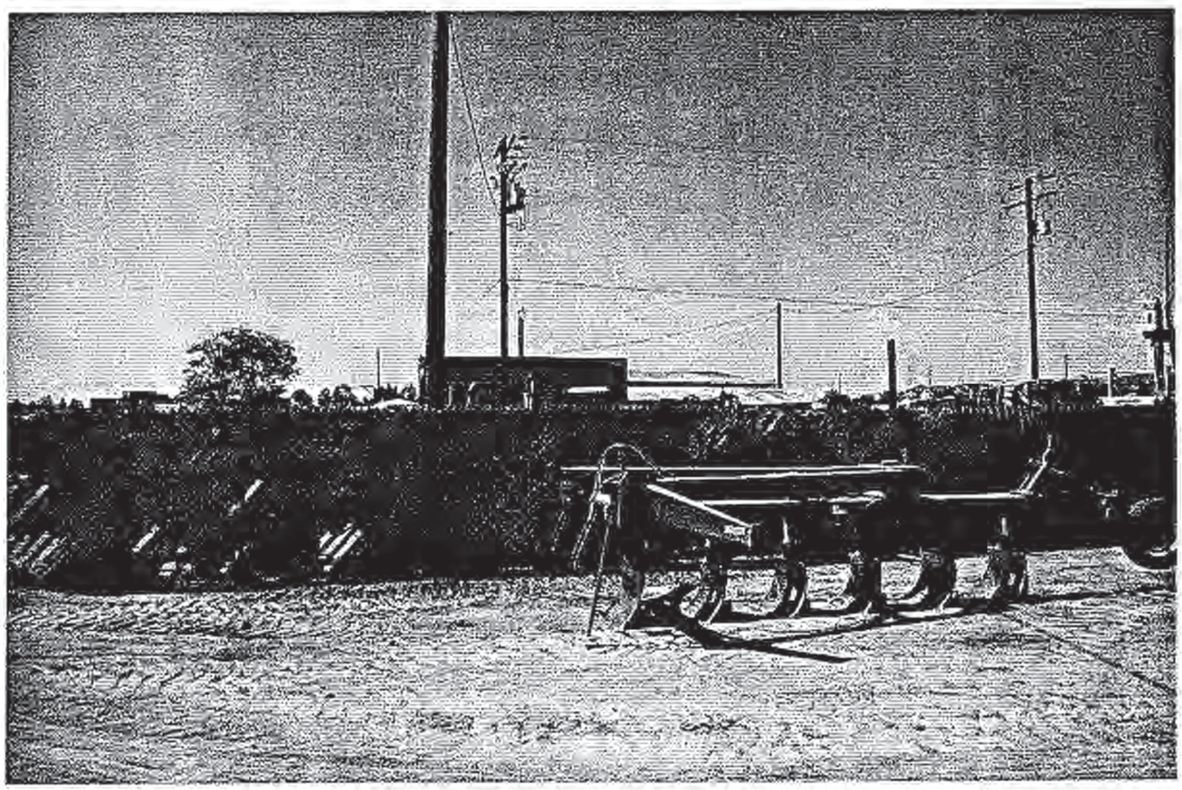


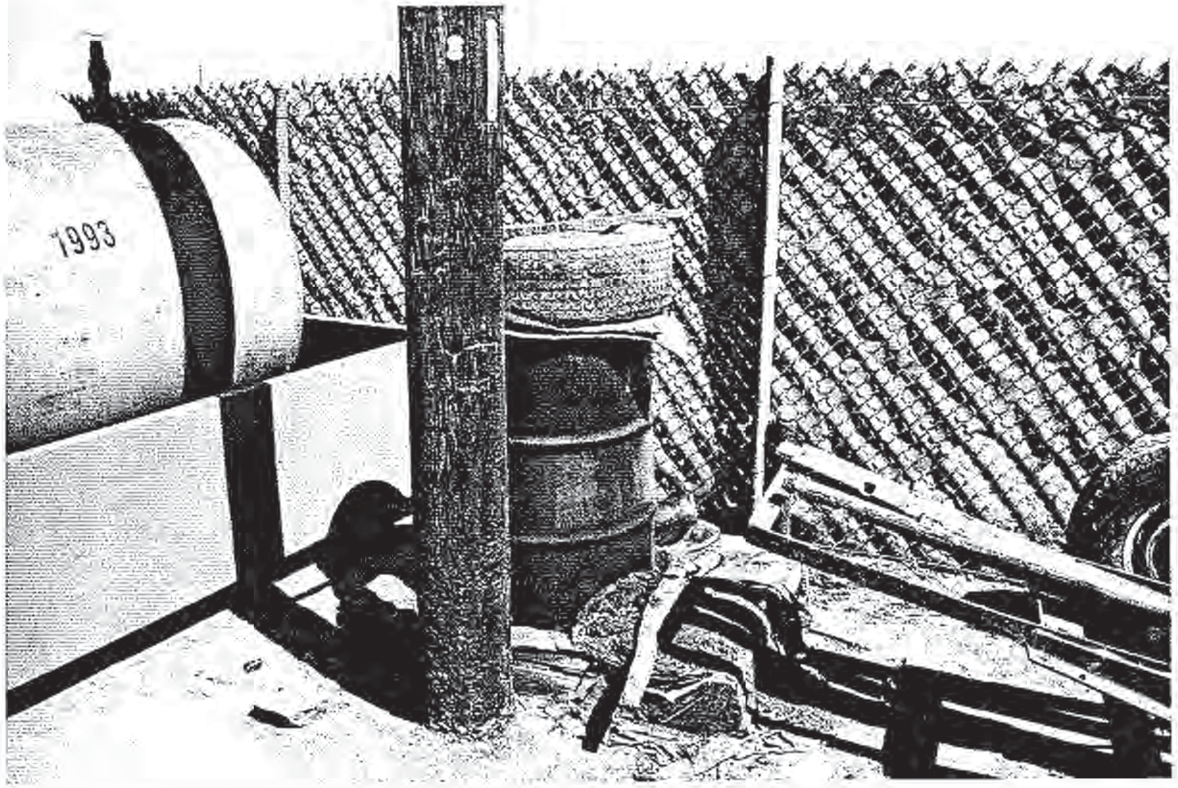

BIG BOX

AREA 2

AREA 3



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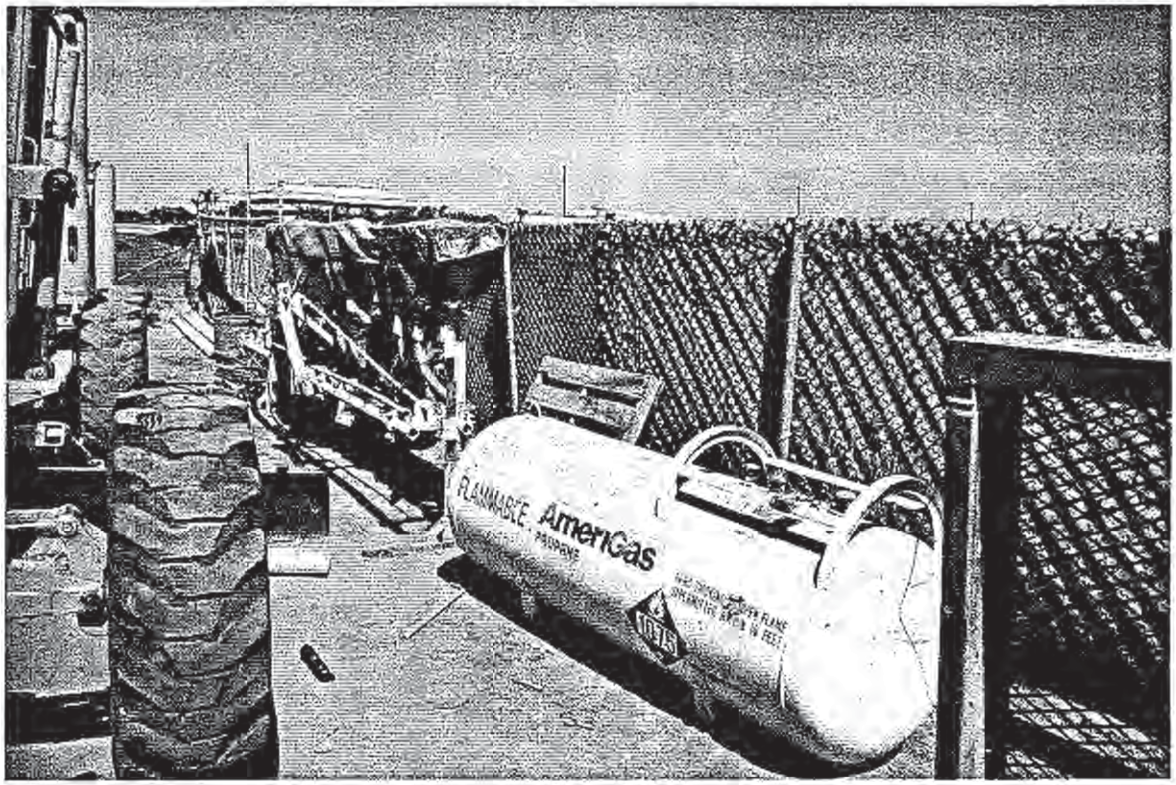
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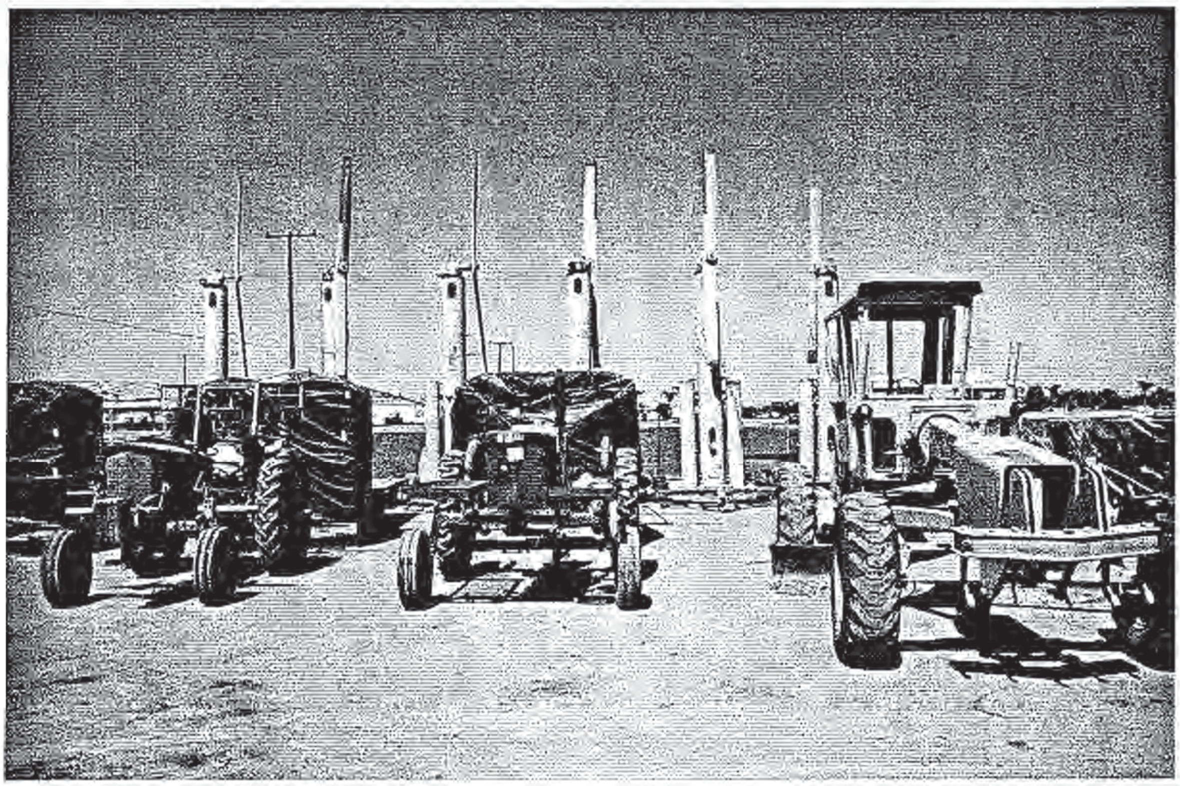
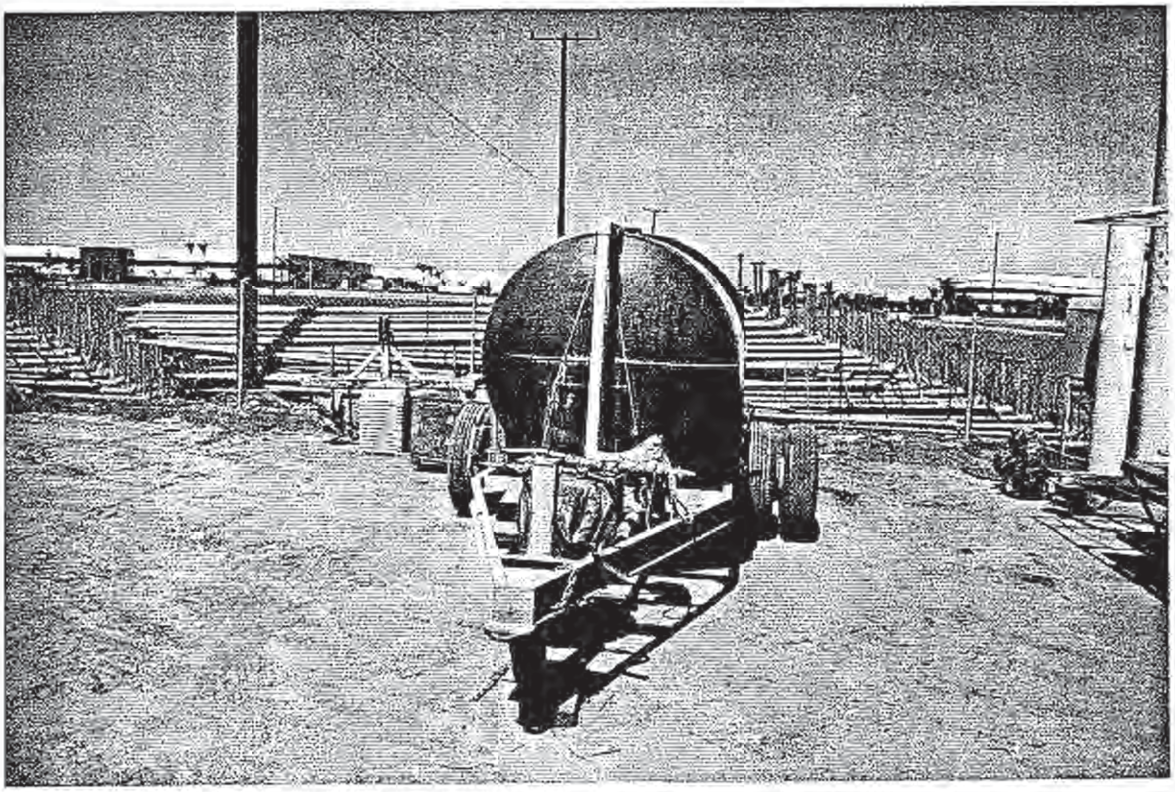
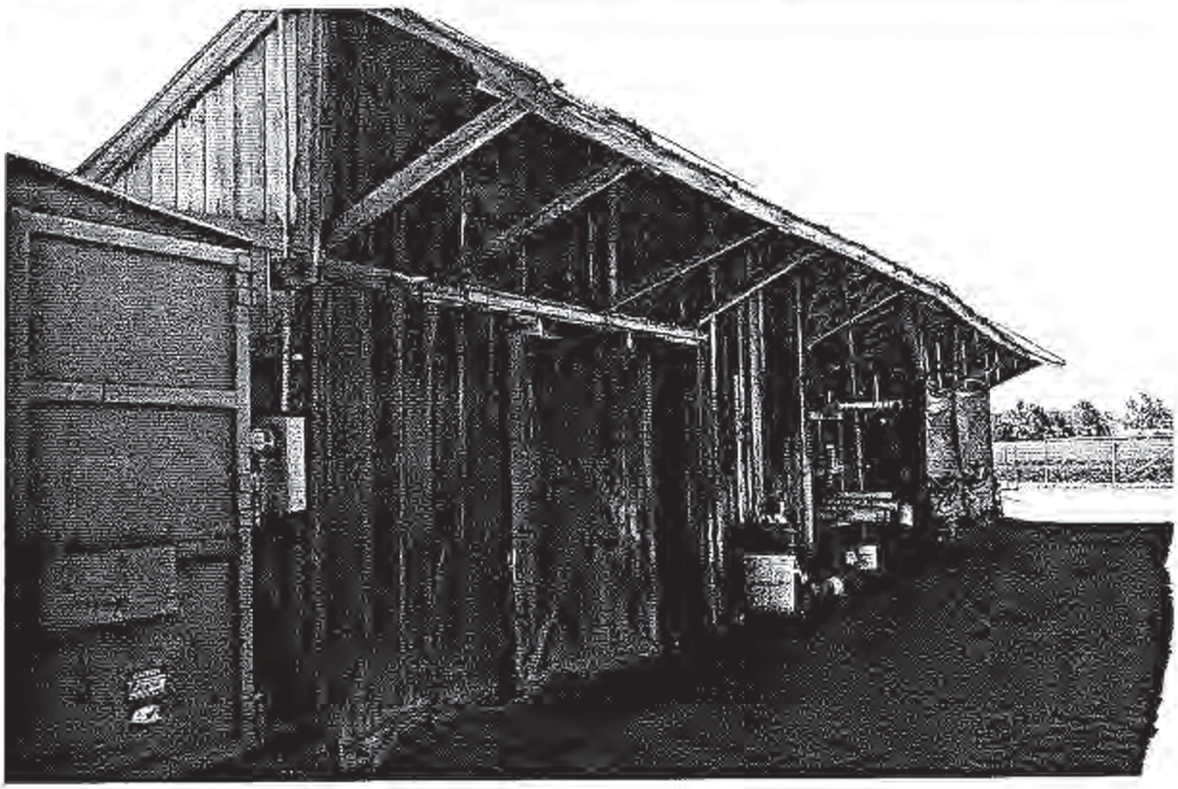
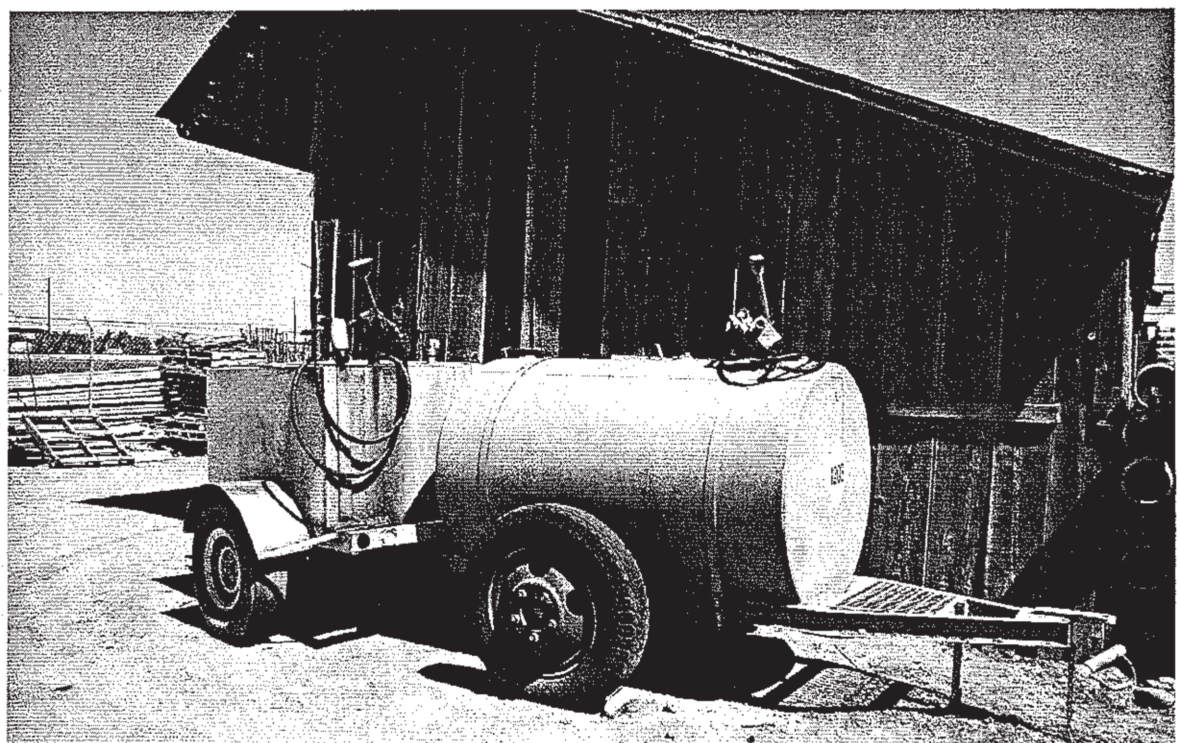
AmeriGas

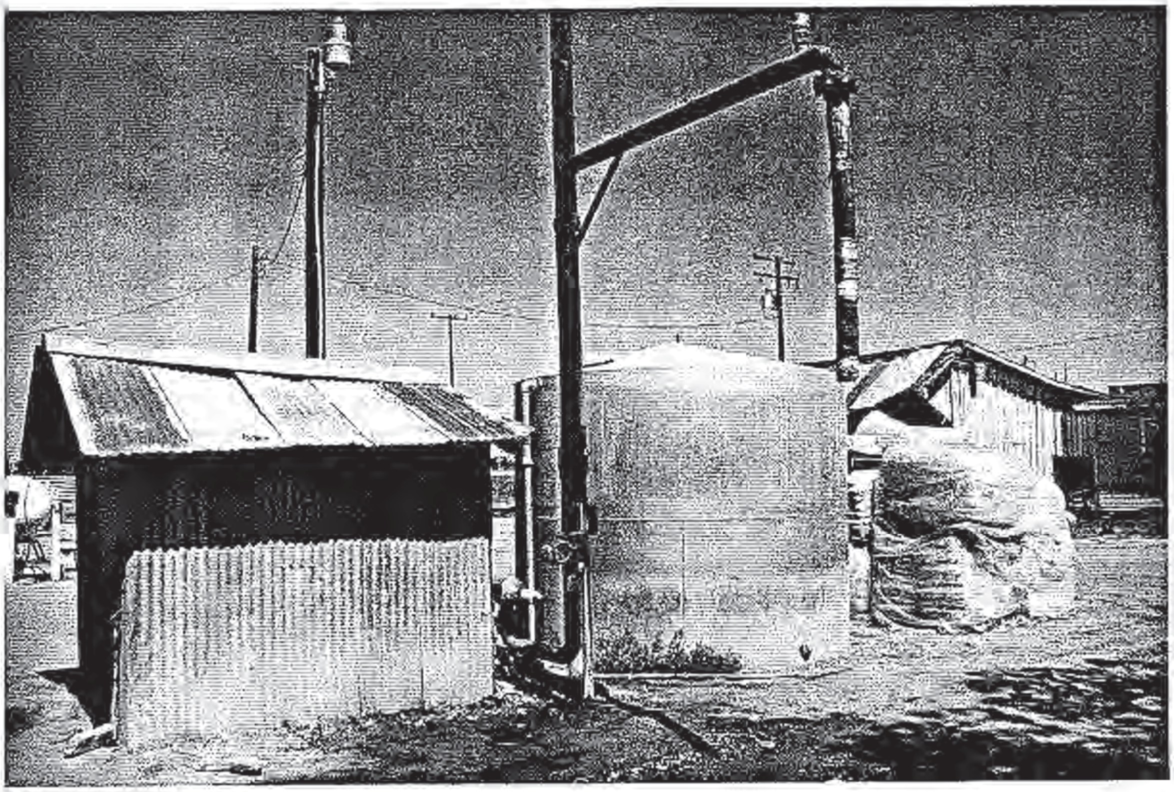


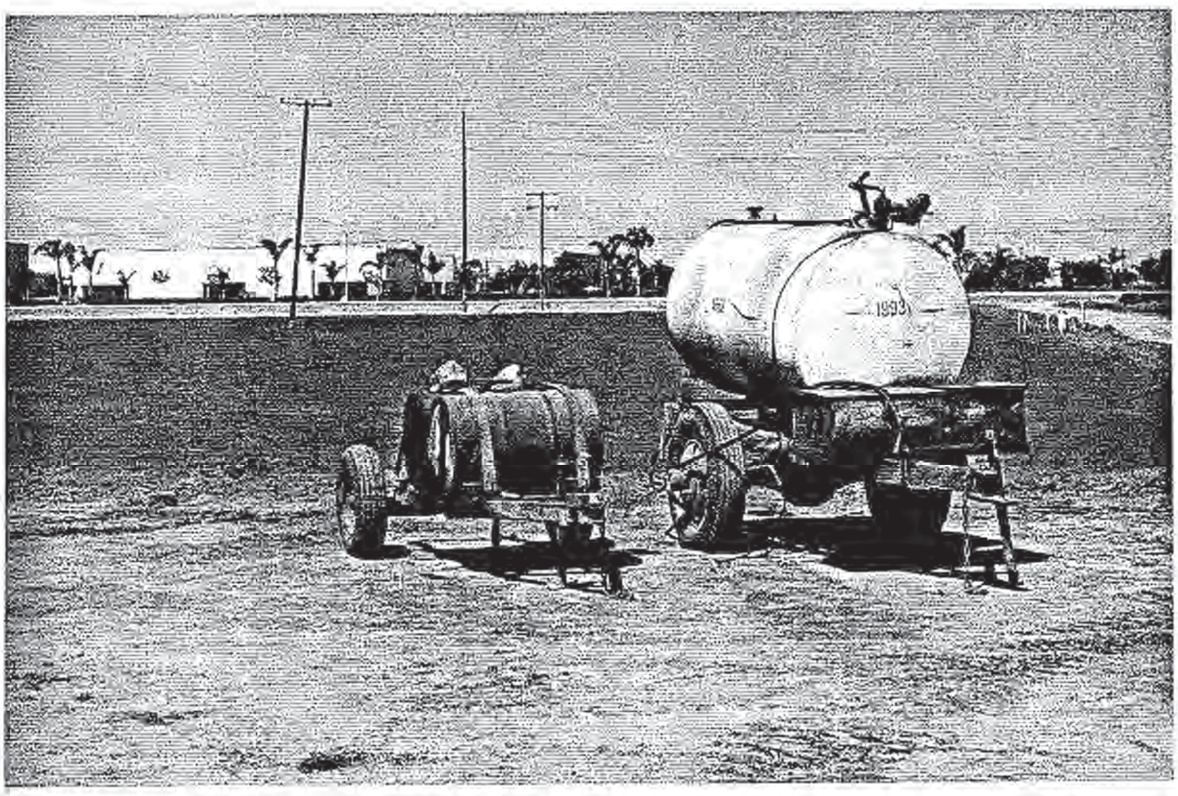





TRI-TECH
WOODS



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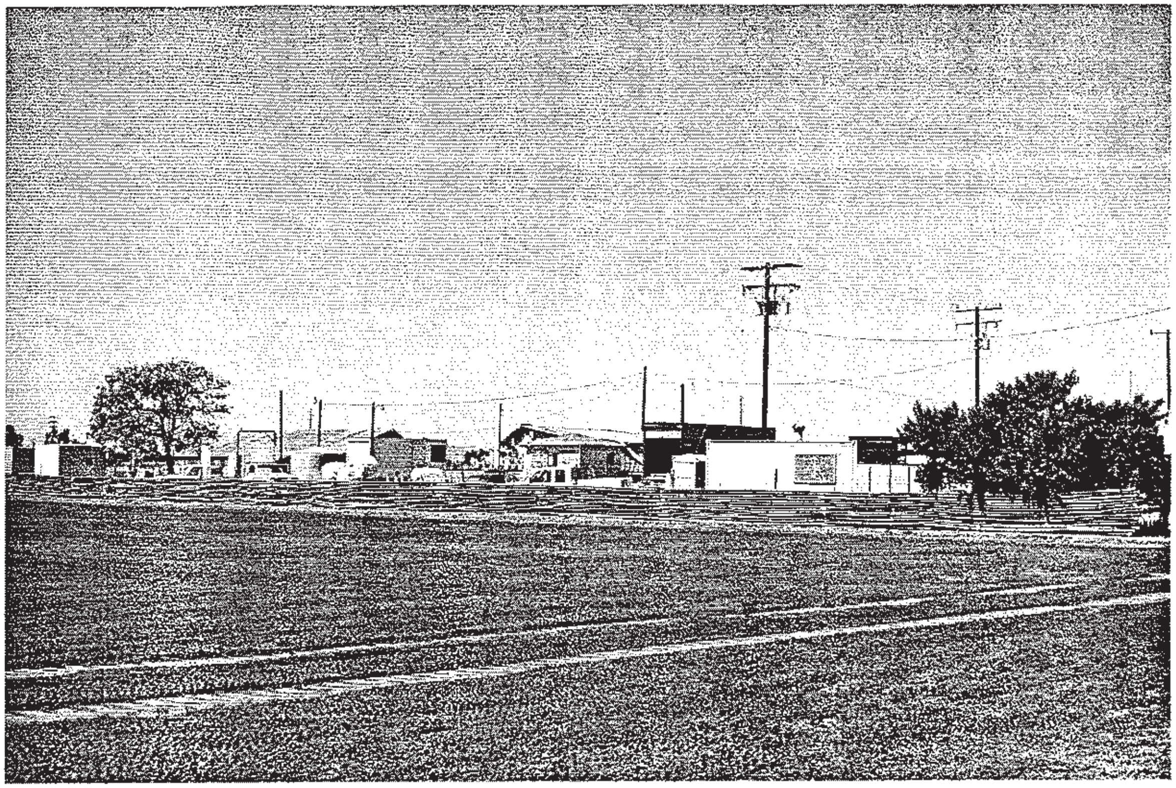

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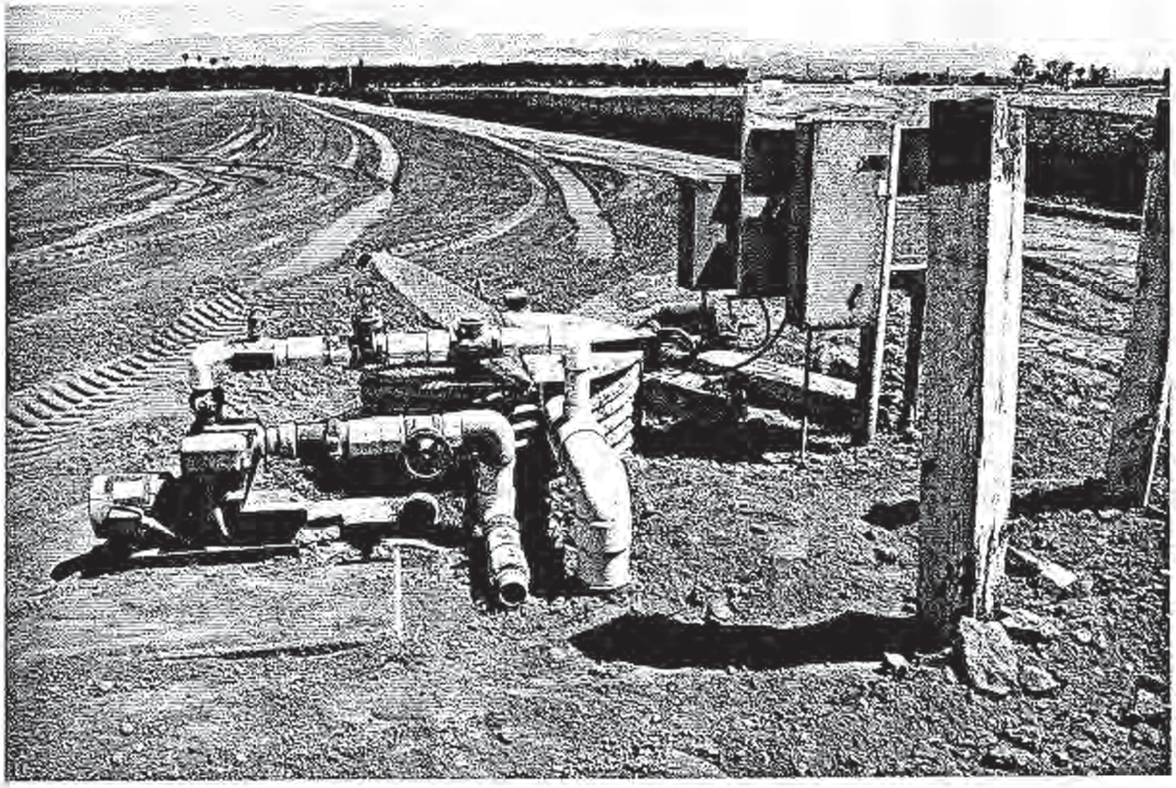

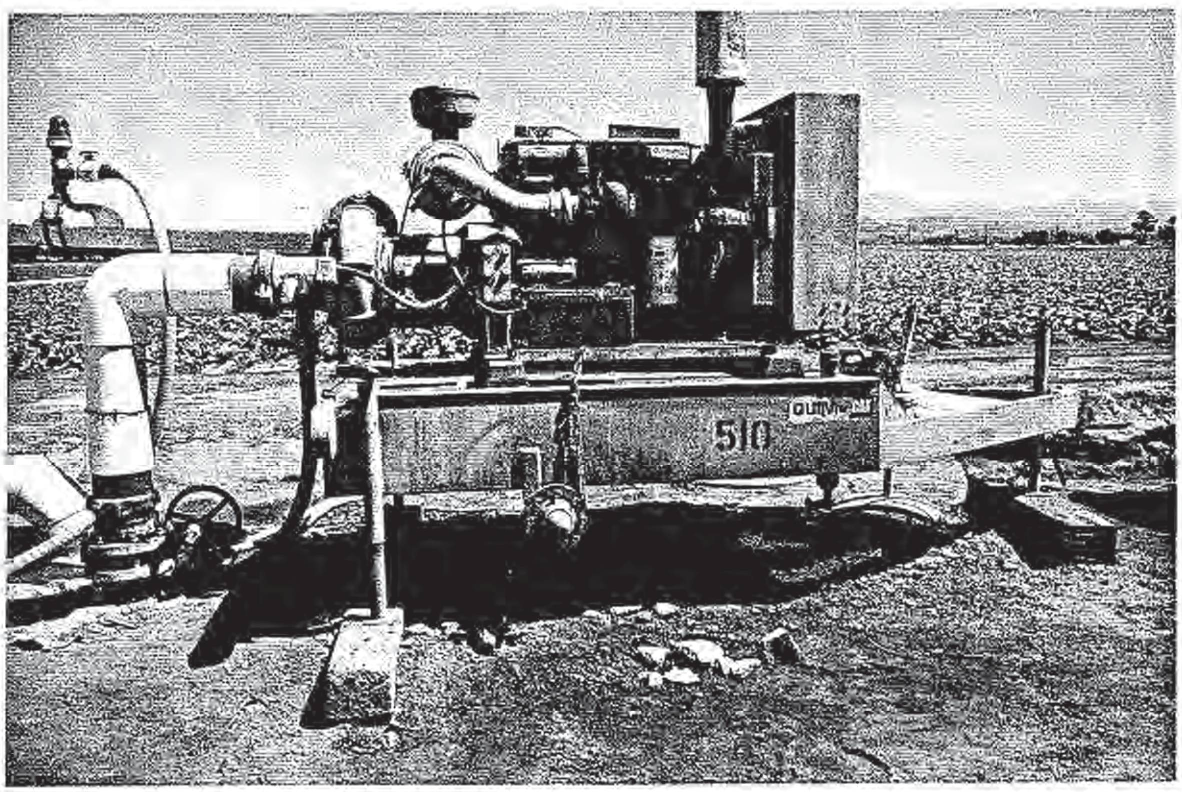
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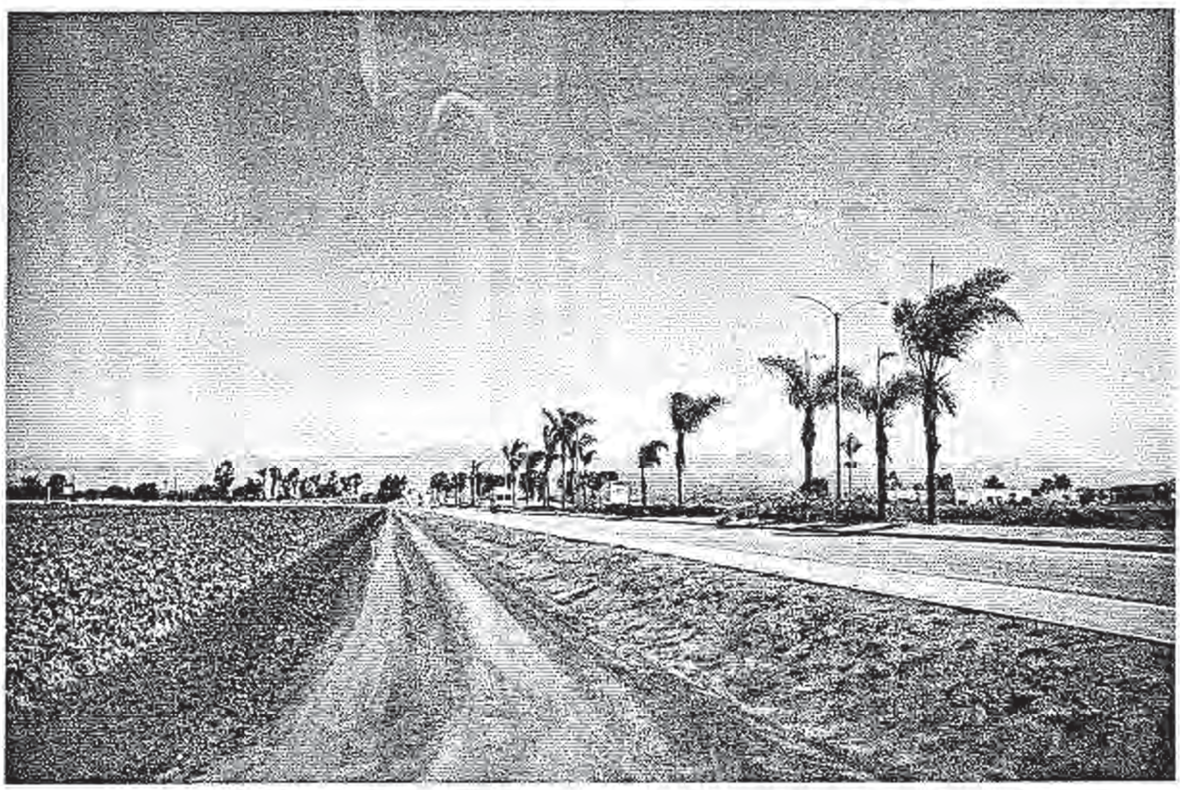
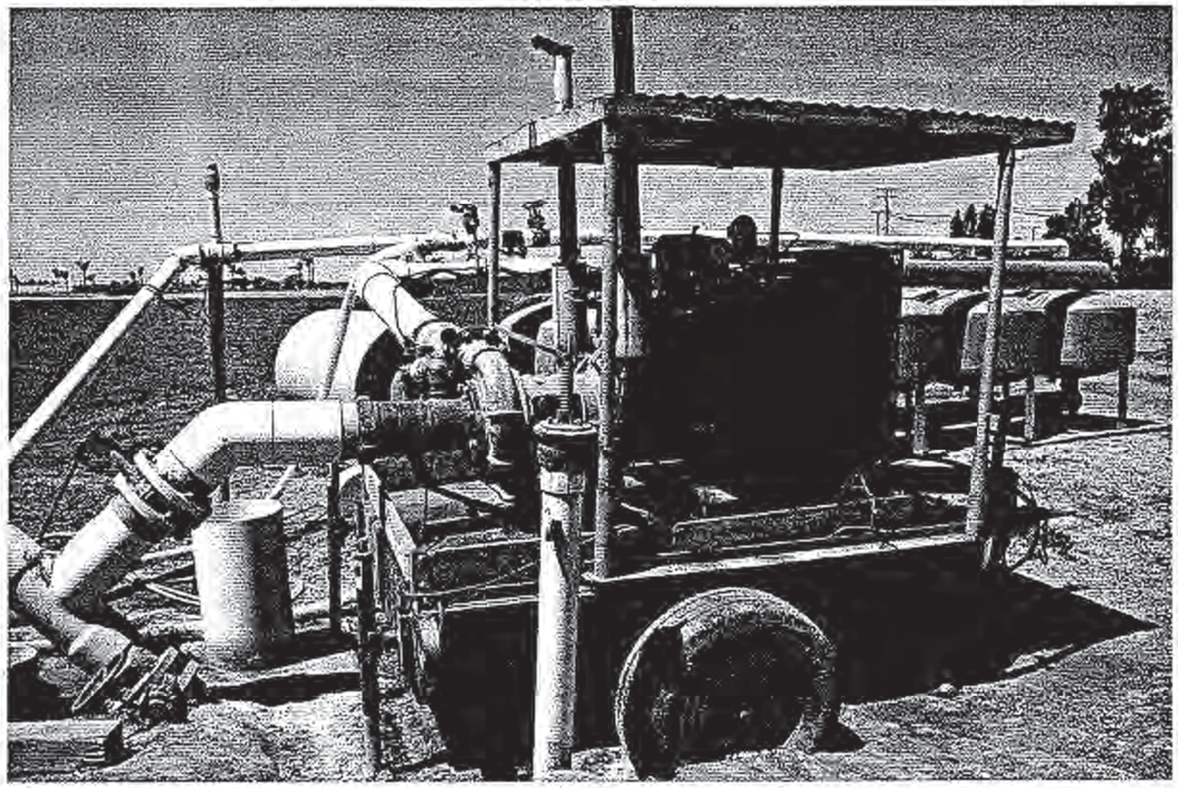


AREA 6

AREA 7



The EDR-Historical Topographic Map Report

Sakioka Farms
Rice Ave/Del Norte Boulevard
Oxnard, CA 93030

July 9, 2002

Inquiry Number: 809377-5

EDR® Environmental Data Resources, Inc.
an edr company

The Source For Environmental Risk Management Data

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802

Please call EDR Nationwide Customer Service at
1-800-352-0050 (8am-8pm ET)
with questions or comments about your report.
Thank you for your business!

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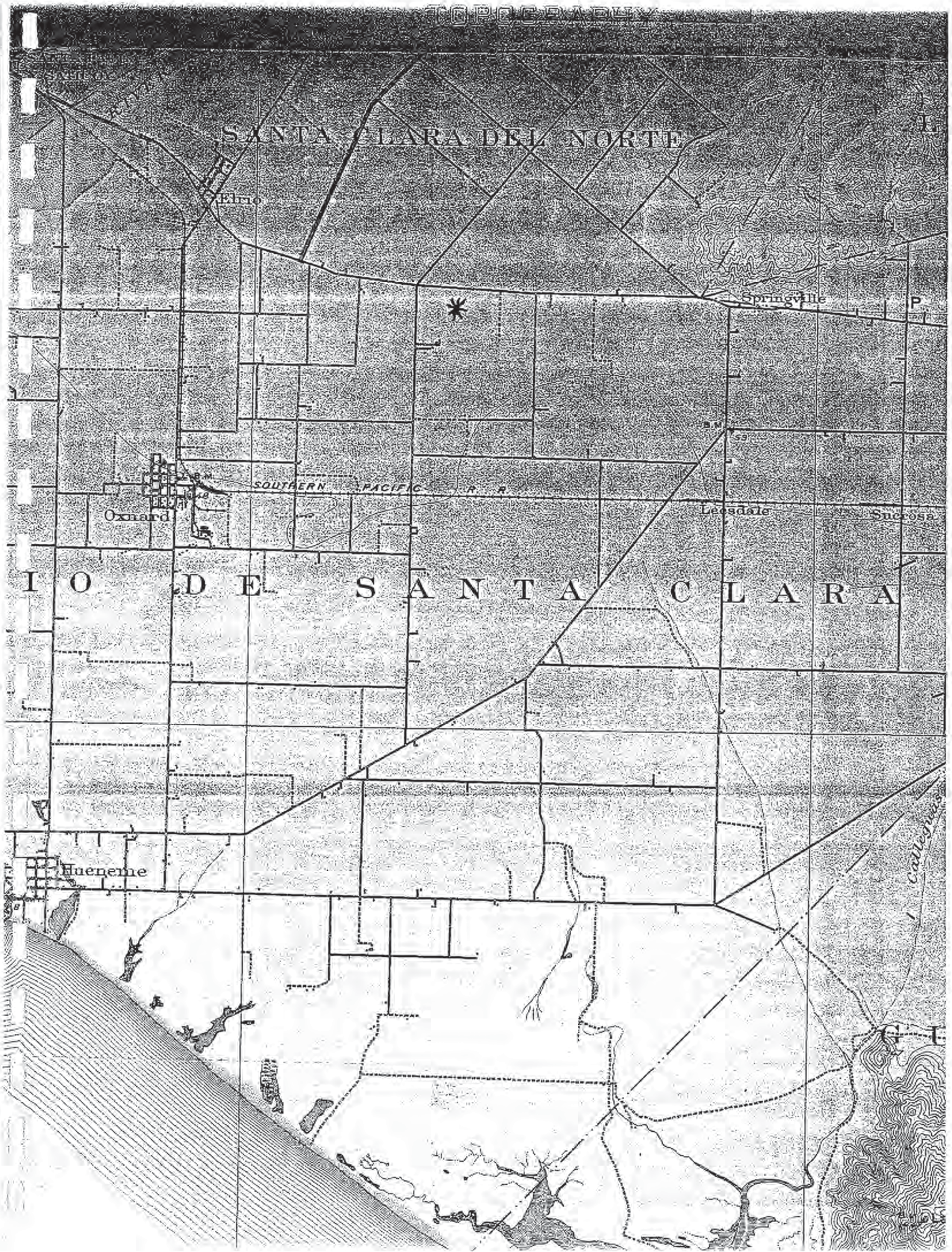
SANTA CLARA DEL NORTE
Elrio
Springville
Oxnard
SOUTHERN PACIFIC R. R.
Leesdale
Saticoy
IO DE SANTA CLARA
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Inquiry Number: 809377.5
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Scale [] 1:24,000 [x] 1:62,500
[] 1:125,000 [] Other

CITY OF OXNARD FIRE/CERTIFIED UNIFIED PROGRAM AGENCY (CUPA)

UNIFIED PROGRAM FACILITY PERMIT

This permit is issued for the program elements checked below:

- ☒ Hazardous Materials Management Plans/Hazardous Materials Release Response Plans & Inventory Program
- ☑ Hazardous Waste Generator Program
- ☒ Hazardous Waste Generator On-site Treatment (Tiered Permitting) Program
- ☒ Underground Storage Tank (UST) Program
- ☒ Aboveground Storage Tank Program Spill Prevention Control & Countermeasure Plan
- ☒ California Accidental Release Prevention (CalARP) Program

City of Oxnard

Business Name : **El Rio Berry Farms/Fukotomi Farms, Inc.**
Business Address : **2190 N Rice Ave.**

Date of Issuance : October 1, 1999
Expiration Date* : **June 30, 2002**
(*Expiration date contingent on annual payment of applicable fees)

PERMIT CONDITIONS. In order to maintain this Unified Program Facility Permit, the permit holder shall comply with all applicable regulations and requirements, including the following:

A. Hazardous Materials Management Plans & Hazardous Materials Inventory Statements (Title 24, California Code of Regulations (CCR), Part 9, Section 80.113);

B. Hazardous Materials Release Response Plans & Inventory (Business Plan) Program (California Health & Safety Code (H&SC), Division 20, Chapter 6.95, Article 1 & Title 19, CCR, Sections 2620-2732);

C. Hazardous Waste Generator Program & Hazardous Waste Generator On-site Treatment (Tiered Permitting) Program (H&SC, Division 20, Chapter 6.5 & Title 22, CCR, Division 4.5);

D. Underground Storage Tank (UST) Program (H&SC, Division 20, Chapters 6.7 & 6.75; Title 23, CCR, Division 3, Chapter 16)
   - A copy of your Monitoring Program (including a monitoring plan, release response plan and plot plan with UST ID#s) submitted as a component of your Unified Program Facility Permit application to the City of Oxnard Fire/CUPA must be maintained on-site;

E. Aboveground Storage Tank Program Spill Prevention Control & Countermeasure Plan (H&SC, Division 20, Chapter 6.67, Section 25270.5(c)); and

F. California Accidental Release Prevention (CalARP) Program (H&SC, Division 20, Chapter 6.95, Article 2 & Title 19, CCR, Division 2, Chapter 4.5).

This Unified Program Facility Permit must be maintained on-site. Please contact the City of Oxnard Fire/CUPA at (805) 385-7722 if there is a change of: facility ownership, facility name, facility address, facility operations or if your facility is closing.

Steve Elkinton

Captain Steve Elkinton
City of Oxnard Fire/CUPA
251 South C Street
Oxnard, CA 93030

City of Oxnard

FIRE/CUPA ● 251 South C St., Oxnard, CA 93030
TELEPHONE: (805) 385-7722 FAX: (805) 385-8009

HAZARDOUS MATERIAL INVENTORY CERTIFICATION
(due on or before March 1 annually)

IF THERE ARE NO CHANGES TO YOUR CHEMICAL INVENTORY:

You can comply with the annual state reporting requirements by completing and submitting this certification statement to the City of Oxnard Fire/CUPA on or before March 1 *(see below if your business handles an extremely hazardous substance (EHS))*.

IF THERE ARE CHANGES TO YOUR CHEMICAL INVENTORY:

You must submit a signed Business Owner/Operator Identification (OES 2730) form and where a change has occurred, a Hazardous Material Inventory-Chemical Description (OES 2731) form on or before March 1. You can submit this certification for all other hazardous materials where no change has occurred *(see below if your business handles an extremely hazardous substance (EHS))*.

IF YOUR BUSINESS HANDLES AN EXTREMELY HAZARDOUS SUBSTANCE (EHS):

If your business handles a hazardous material equal to or greater than the applicable federal threshold planning quantity (TPQ) for an extremely hazardous substance (EHS) listed in Appendix A, Part 355, Title 40 of the Code of Federal Regulations, you must submit the following forms annually on or before March 1: a) Business Activities, b) signed Business Owner/Operator Identification (OES 2730), and c) a Hazardous Material Inventory-Chemical Description (OES 2731) for each EHS. You can submit this certification for all other hazardous materials that are not an EHS and where no change has occurred.

CERTIFICATION

I certify that I am the business owner or an officially designated representative of the following business:

Business Name: Fukutomi Farms Inc.

Business Address: P.O. Box 5736

OXNARD, CA Zip Code: 93031

and that:

1) a complete hazardous materials inventory was previously filed as a component of the Unified Program Facility Permit Application (pursuant to Section 2729.2 and 2729.3 of Title 19, California Code of Regulations);

2) the information contained in the hazardous materials inventory most recently submitted to the City of Oxnard Fire/CUPA is complete, accurate, and up to date *(except for other forms submitted accompanying this certification for changes, or if applicable, extremely hazardous substances (EHSs))*;

3) there has been no change in the quantity of hazardous materials reported in the most recently submitted hazardous materials inventory *(except for other forms submitted accompanying this certification for changes, or if applicable, extremely hazardous substances (EHSs))*; and

4) no hazardous materials subject to inventory requirements are being handled that are not listed on the most recently submitted inventory *(except for other forms submitted accompanying this certification for changes, or if applicable, extremely hazardous substances (EHSs)*.

Name (print): Brian Fukutomi

Signature: Brian Fukutomi

Title: Owner

Date: 7/31/00

Phone: 4855461

CALIFORNIA CODE OF REGULATIONS
TITLE 19
CHAPTER 2
SUBCHAPTER 3

APPENDIX A

California Hazardous Materials Inventory Reporting Form - Business Owner/Operator Identification Page

CALENDAR YEAR BEGINNING (1) 1-1-97 ENDING (2) 12-31-97 (3) PAGE 1 OF 1

BUSINESS NAME (4) Fukutomi Farms Inc. BUSINESS PHONE: (5) 805 485 5461

SITE ADDRESS (6) 2190 Rice Ave.

CITY (7) Oxnard STATE (8) CA ZIP (9) 93030

DUN & BRADSTREET (10) SIC CODE (4 DIGIT#) (11)

OPERATOR NAME (12) Brian Fukutomi OPERATOR PHONE (13) 485-5461

OWNER INFORMATION

OWNER NAME (14) Brian Fukutomi OWNER PHONE (15) 485-5461

OWNER MAILING ADDRESS (16) P.O. Box 5736

CITY (17) Oxnard STATE (18) CA ZIP (19) 93031

ENVIRONMENTAL CONTACT

CONTACT NAME (20) See above CONTACT PHONE (21)

MAILING ADDRESS (22)

CITY (23) STATE (24) ZIP (25)

EMERGENCY CONTACTS

Primary		Secondary	
NAME: (26)	Brian Fukutomi.	NAME: (31)	Joe Alviso
TITLE: (27)	Owner	TITLE: (32)	Ranch Manager
BUSINESS PHONE: (28)	485-5461	BUSINESS PHONE: (33)	487-0498
24-HOUR PHONE: (29)	660-0838	24-HOUR PHONE: (34)	469-7708
PAGER #: (30)	662-2386	PAGER #: (35)	—

ACUTELY HAZARDOUS MATERIALS (AHM)

ON SITE AHM (36) ☐ Yes ☑ No If yes, and above Threshold Planning Quantities, attach a sheet of paper with a general description of the process and principal equipment.

ADDITIONAL LOCALLY COLLECTED INFORMATION

(37)

Certification: I certify under penalty of law that I have personally examined and am familiar with the information submitted in this inventory and believe the information is true, accurate, and complete.

Print Name of Document Preparer (38) Brian Fukutomi

Signature of Owner/Operator (39) Brian Fukutomi Date (40) 8/20/97

OES Form 2730(04/96)

APPENDIX C

California Hazardous Materials Inventory Reporting Form - Chemical Description Page

(1) ☐ ADD ☐ DELETE ☐ REVISE

PAGE (2) ____ OF (3) ____

BUSINESS NAME (4) Fukutomi Farms
CHEMICAL LOCATION (5) 2190 Rice Ave
MAP# (6) 1
GRID # (7)

CHEMICAL NAME (8) Oxygen
TRADE SECRET (11) ☐ Y ☑ N
COMMON NAME (9) Oxygen
*EHS (12) ☐ Y ☑ N
CAS # (10) 7782-44-7
*IF EHS BOX IS "Y" ALL AMOUNTS MUST BE IN LBS
FIRE CODE HAZARD CLASSES* (13) Compressed gasses / oxidizing
*COMPLETE BLOCK (13) IF REQUESTED BY THE LOCAL FIRE CHIEF - REFER TO INSTRUCTIONS.

TYPE (14) ☑ PURE ☐ MIXTURE ☐ WASTE
RADIOACTIVE (15) ☐ Y ☑ N (16) ____ CURIES
PHYSICAL STATE (17) ☐ SOLID ☐ LIQUID ☑ GAS
FED HAZARD CATEGORIES (18) ☑ FIRE ☐ REACTIVE ☑ PRESSURE RELEASE ☐ ACUTE HEALTH ☐ CHRONIC HEALTH

STATE WASTE CODE (19) N/A
UNITS* (22) ☐ GAL ☑ CU FT ☐ LBS ☐ TONS
MAX DAILY AMT (23) 250
DAYS ON SITE (20) 365
*If EHS, amounts must be in lbs.
AVG DAILY AMT (24) >250
LARGEST CONTAINER (21) 250 cub. ft.
ANNUAL WASTE AMT (25) N/A

STORAGE CONTAINER (26)
☐ ABOVE GROUND TANK ☐ UNDER GROUND TANK ☐ TANK INSIDE BUILDING ☐ STEEL DRUM ☐ PLASTIC/NONMETALLIC DRUM
☐ CAN ☐ CARBOY ☐ SILO ☐ FIBER DRUM ☐ BAG
☐ BOX ☑ CYLINDER ☐ GLASS BOTTLE ☐ PLASTIC BOTTLE ☐ TOTE BIN
☐ TANK WAGON ☐ RAIL CAR ☐ __________

STORAGE PRESSURE (27) ☑ AMBIENT ☐ ABOVE AMBIENT ☐ BELOW AMBIENT
STORAGE TEMPERATURE (28) ☑ AMBIENT ☐ ABOVE AMBIENT ☐ BELOW AMBIENT ☐ CRYOGENIC

	(29) %WT	(30) HAZARDOUS COMPONENT	(31) EHS	(32) CAS#
1	100	Oxygen	☐ Y ☑ N	7782-44-7
2			☐ Y ☐ N	
3			☐ Y ☐ N	
4			☐ Y ☐ N	
5			☐ Y ☐ N	

(33) ADDITIONAL LOCALLY COLLECTED INFORMATION

CALIFORNIA CODE OF REGULATIONS
TITLE 19
CHAPTER 2
SUBCHAPTER 3

APPENDIX C

California Hazardous Materials Inventory Reporting Form - Chemical Description Page

(1) ☐ ADD ☐ DELETE ☐ REVISE

PAGE (2) ____ OF (3) ____

BUSINESS NAME (4)	Fukutomi Farms Inc.
CHEMICAL LOCATION (5)	2190 Rice Ave / Oxnard / CA
MAP# (6)	
GRID # (7)	
CHEMICAL NAME (8)	Low Sulphur Diesel
TRADE SECRET (11)	☐ Y ☐ N
COMMON NAME (9)	Diesel #2
*EHS (12)	☐ Y ☐ N
CAS # (10)	68476-34-6

*IF EHS BOX IS "Y" ALL AMOUNTS MUST BE IN LBS

FIRE CODE HAZARD CLASSES* (13):

*COMPLETE BLOCK (13) IF REQUESTED BY THE LOCAL FIRE CHIEF - REFER TO INSTRUCTIONS.

TYPE (14)	☐ PURE ☑ MIXTURE ☐ WASTE
RADIOACTIVE (15)	☐ Y ☑ N
(16) CURIES	
PHYSICAL STATE (17)	☐ SOLID ☑ LIQUID ☐ GAS
FED HAZARD CATEGORIES (18)	☑ FIRE ☐ REACTIVE ☐ PRESSURE RELEASE ☑ ACUTE HEALTH ☑ CHRONIC HEALTH
STATE WASTE CODE (19)	N/A
UNITS* (22)	☑ GAL ☐ CU FT ☐ LBS ☐ TONS
MAX DAILY AMT (23)	900 gal
DAYS ON SITE (20)	365
AVG DAILY AMT (24)	600 gal
LARGEST CONTAINER (21)	300 gal
ANNUAL WASTE AMT (25)	—

*If EHS, amounts must be in lbs.

STORAGE CONTAINER (26): ☑ ABOVE GROUND TANK ☐ UNDER GROUND TANK ☐ TANK INSIDE BUILDING ☐ STEEL DRUM ☐ PLASTIC/NONMETALLIC DRUM ☐ CAN ☐ CARBOY ☐ SILO ☐ FIBER DRUM ☐ BAG ☐ BOX ☐ CYLINDER ☐ GLASS BOTTLE ☐ PLASTIC BOTTLE ☐ TOTE BIN ☐ TANK WAGON ☐ RAIL CAR ☐ __________

STORAGE PRESSURE (27): ☑ AMBIENT ☐ ABOVE AMBIENT ☐ BELOW AMBIENT

STORAGE TEMPERATURE (28): ☑ AMBIENT ☐ ABOVE AMBIENT ☐ BELOW AMBIENT ☐ CRYOGENIC

	(29) %WT	(30) HAZARDOUS COMPONENT	(31) EHS	(32) CAS#
1	100	Hydrocarbons	☐ Y ☑ N	68475-34-6
2			☐ Y ☐ N	
3			☐ Y ☐ N	
4			☐ Y ☐ N	
5			☐ Y ☐ N	

(33) ADDITIONAL LOCALLY COLLECTED INFORMATION

OES Form 2731 (04/96)

CALIFORNIA CODE OF REGULATIONS
TITLE 19
CHAPTER 2
SUBCHAPTER 3

APPENDIX C

California Hazardous Materials Inventory Reporting Form - Chemical Description Page

(1) ☐ ADD ☐ DELETE ☐ REVISE

PAGE (2) ____ OF (3) ____

BUSINESS NAME (4) Fukutomi Farms

CHEMICAL LOCATION (5) 2190 Rice Ave

MAP# (6) 1 GRID # (7) 1D

CHEMICAL NAME (8) Gasoline

TRADE SECRET (11) ☐ Y ☐ N

COMMON NAME (9) Gasoline

*EHS (12) ☐ Y ☑ N

CAS # (10) mixture

*IF EHS BOX IS "Y" ALL AMOUNTS MUST BE IN LBS

FIRE CODE HAZARD CLASSES* (13)

*COMPLETE BLOCK (13) IF REQUESTED BY THE LOCAL FIRE CHIEF - REFER TO INSTRUCTIONS.

TYPE (14) ☐ PURE ☑ MIXTURE ☐ WASTE

RADIOACTIVE (15) ☐ Y ☑ N

(16) ____ CURIES

PHYSICAL STATE (17) ☐ SOLID ☑ LIQUID ☐ GAS

FED HAZARD CATEGORIES (18) ☑ FIRE ☐ REACTIVE ☐ PRESSURE RELEASE ☐ ACUTE HEALTH ☐ CHRONIC HEALTH

STATE WASTE CODE (19)

UNITS* (22) ☐ GAL ☐ CU FT ☐ LBS ☐ TONS

MAX DAILY AMT (23) 300

DAYS ON SITE (20) 365

*If EHS, amounts must be in lbs.

AVG DAILY AMT (24) 200

ANNUAL WASTE AMT (25)

LARGEST CONTAINER (21) 300 gal

STORAGE CONTAINER (26)
☑ ABOVE GROUND TANK
☐ UNDER GROUND TANK
☐ TANK INSIDE BUILDING
☐ STEEL DRUM
☐ PLASTIC/NONMETALLIC DRUM
☐ CAN
☐ CARBOY
☐ SILO
☐ FIBER DRUM
☐ BAG
☐ BOX
☐ CYLINDER
☐ GLASS BOTTLE
☐ PLASTIC BOTTLE
☐ TOTE BIN
☐ TANK WAGON
☐ RAIL CAR
☐ ________

STORAGE PRESSURE (27) ☑ AMBIENT ☐ ABOVE AMBIENT ☐ BELOW AMBIENT

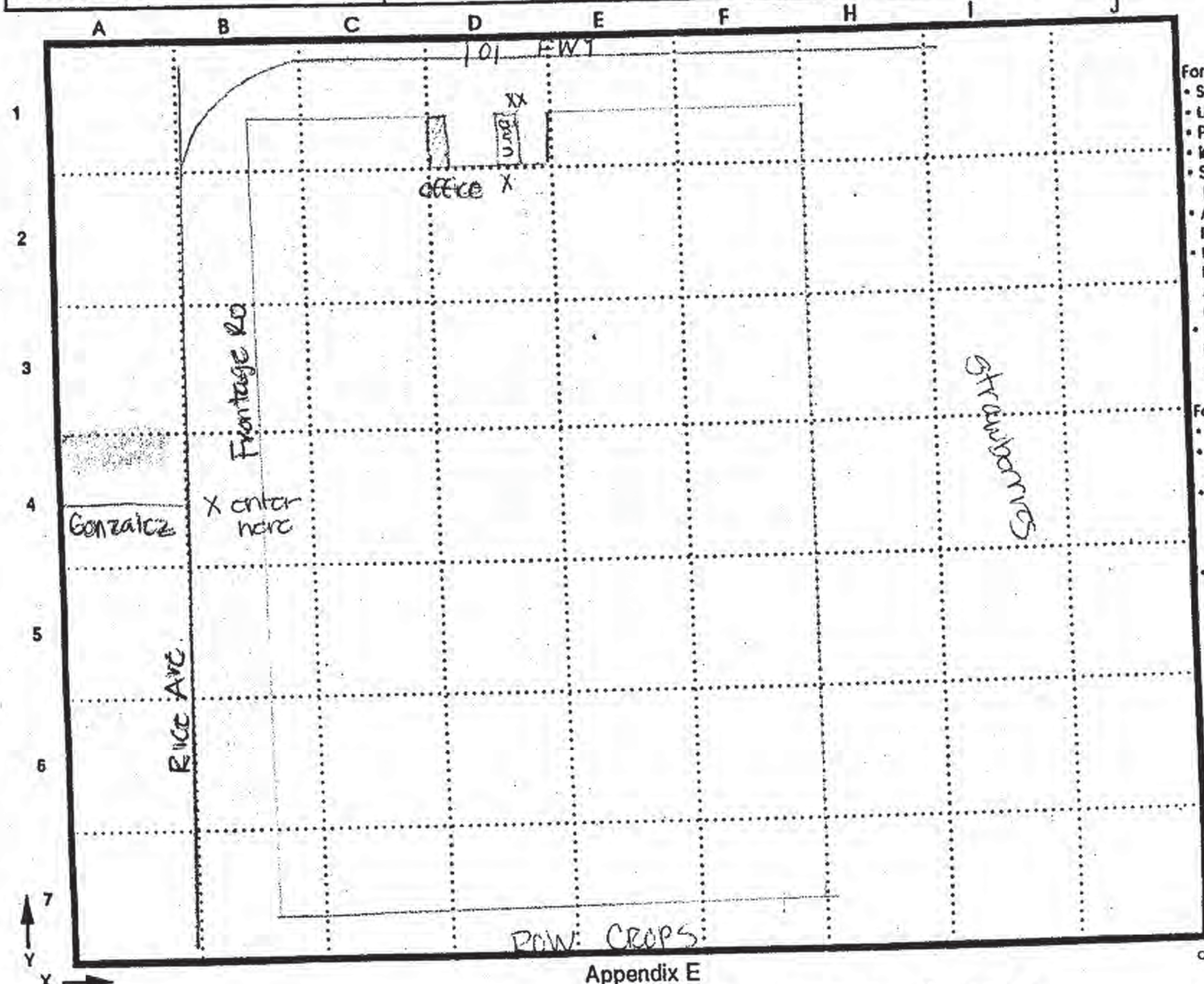
STORAGE TEMPERATURE (28) ☑ AMBIENT ☐ ABOVE AMBIENT ☐ BELOW AMBIENT ☐ CRYOGENIC

	(29) %WT	(30) HAZARDOUS COMPONENT	(31) EHS	(32) CAS#
1	100	Gasoline	☐ Y ☐ N	mixture
2			☐ Y ☐ N	
3			☐ Y ☐ N	
4			☐ Y ☐ N	
5			☐ Y ☐ N	

(33) ADDITIONAL LOCALLY COLLECTED INFORMATION

OES Form 2731 (04/96)

CALIFORNIA ANNOTATED SITE MAP | Business Name: Fukutomi Farms | Site Address: 2190 Rice Ave | Map #:



For Site Map
- Scale of Map
- Loading Areas
- Parking Lots
- Internal Roads
- Storm and Sewer Drains
- Adjacent Property Use
- Locations and Names of Adjacent Streets and Alleys
- Access and Egress Points and Roads

For Sub-Site Map
- Scale of Map
- Location of Each Storage Area
- Location of Each Hazardous Material Handling Area
- Location of Emergency Response Equipment

Scale:

1" = __Ft.

North

OES Form 2729(map) (1/94)

Appendix E

"X" = location of tanks

City of Oxnard

CUPA PROGRAM

Aboveground Petroleum Storage Tank Facility

I: FACILITY STORAGE INFORMATION	
Number of aboveground tanks (capacity >10,000 gal) None 250	Total facility storage capacity (in gallons) 900 Gallons 251

REPORTING INFORMATION
FACILITY ID# 1
DBA Fukutomi Farms Inc. 5

247d30.1b

City of Oxnard

CUPA PROGRAM

Aboveground Petroleum Storage Tank
(one form per tank)

I: TANK DATA

TANK SIZE			AGE OF TANK IN YEARS
300 gall. 252			10 years 251
TANK LOC'N: see map 43	GRID #: 10 44	MAP#: 1 45	TANK CONTENTS: Gasoline 254

II: REPORTING INFORMATION

FACILITY ID#
2190 Rice Ave 1
DBA: Fukutomi Farms Inc. 5

247d30.1b

City of Oxnard

CUPA PROGRAM

Aboveground Petroleum Storage Tank

(one form per tank)

I: TANK DATA

TANK SIZE			AGE OF TANK IN YEARS
300 gallons 252			10 years 251
TANK LOC'N: see map 43	GRID #: 2D 44	MAP#: 1 45	TANK CONTENTS: dyed-diesel 254

II: REPORTING INFORMATION

FACILITY ID# 2190 Rice Ave 1
DBA Fukutomi Farms 5

247d30.1b

City of Oxnard

CUPA PROGRAM

Aboveground Petroleum Storage Tank

(one form per tank)

I: TANK DATA

TANK SIZE			AGE OF TANK IN YEARS
300 gall. 252			10 years 251

TANK LOC'N	GRID #	MAP#	TANK CONTENTS
see map 43	1 D 44	1 45	diesel 254

II: REPORTING INFORMATION

FACILITY ID#
2190 Rice Ave 1

DBA
Fukutomi Farms Inc. 5

247d30.1b

RESOURCE MANAGEMENT AGENCY

county of ventura

FILE COPY

Environmental Health Division
Donald W. Koepp
Director

November 21, 1996

Mr. Bob Hodges
Long Beach Mortgage
1100 Town & Country Road
Orange, CA 92668-4660

VCEHD File #C95085

SITE CLOSURE FOR LONG BEACH MORTGAGE PROPERTY, 2935 VENTURA BOULEVARD, OXNARD, CALIFORNIA

This letter confirms the completion of site investigation and remedial action for the underground storage tank(s) at the above site. Thank you for your cooperation throughout this investigation. With the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required based on the available information as set forth in California Code of Regulations, Title 23, Division 3, Chapter 16, Article 11, Section 2721(e) (Underground Storage Tank Corrective Action Regulations). Enclosed is the Case Closure Summary for the referenced site for your records.

If you have any questions regarding this matter, please contact Mr. Peter M. Bozek of the LUFT Program staff at (805) 662-6511.

DONALD W. KOEPP, DIRECTOR
ENVIRONMENTAL HEALTH DIVISION
RESOURCE MANAGEMENT AGENCY

DWK/jm/11lngbch.clo

Enclosure

c: David Bacharowski, Los Angeles Regional Water Quality Control Board
Janice Paulson, State Water Resources Control Board
James DiGiorgio, State Water Resources Control Board

Case Closure Summary

Leaking Underground Fuel Storage Tank Program

I. Agency Information

Date: 6/6/96

Agency name: Ventura County Environmental Health Div	Address: 800 South Victoria Avenue
City/State/ZIP: Ventura, CA 93009-1730	Phone: (805) 662-6511
Responsible staff person: Peter M. Bozek	Title: Environmental Health Specialist III

II. Case Information

Site facility name: Long Beach Mortgage Property			
Site facility address: 2935 Ventura Boulevard			
RB LUSTIS Case No: C95085	Local Case No: C95085	LOP Case No: C95085	
URF filing date: 3/13/95	SWEEPS No:		

Responsible Parties	Addresses	Phone Numbers
Mr. Bob Hodges - Long Beach Mortgage	1100 Town + Country Rd. Orange, CA. 92668	(714) 564-0600

Tank No	Size in Gal	Contents	Closed In-place/Removed?	Date
1	550	Gasoline	Removed	2/27/95
2	550	Diesel	Removed	2/27/95
3				

III. Release and Site Characterization Information

Cause and type of release: leaking dispenser piping		
Site characterization complete? Yes (circled) No	Date approved by oversight agency: 6/6/96	
Monitoring Wells installed? Yes (circled) No	Number: 3	Proper screened interval? Yes (circled) No
Highest GW depth below ground surface: 5 fbg	Lowest depth: 55 fbg	Flow direction: Northeast
Most sensitive current use: None		
Are drinking water wells affected? Yes No (circled)	Aquifer name: Oxnard Aquifer	
Is surface water affected? Yes No (circled)	~~Nearest/Affected~~ SW name: Santa Clara River	
Off-site beneficial use impacts (addresses/locations): None		
Report(s) on file? Yes (circled) No	Where is report(s) filed? Ventura Co. Environmental Health Div.	

Treatment and Disposal of Affected Material

Material	Amount (include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	2 550 gallon	American Metal Recycling's Ontario	3/3/95
Piping		same	"
Free Product			
Soil	20 cu. yds.	Disposed of on site	3/13/95
Groundwater			
Barrels			

Case Closure Summary

Leaking Underground Fuel Storage Tank Program

III. Release and Site Characterization Information (Continued)

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppm)		Contaminant	Soil (ppm)		Water (ppm)	
	Before	After	Before	After		Before	After	Before	After
TPH (Gas)	12	ND	2.8	ND	Xylene	4.0	ND	0.3	ND
TPH (Diesel)	12	ND	0.3	ND	Ethylbenzene	0.46	ND	0.05	ND
Benzene	ND	ND	0.2	ND	Oil & Grease	—			
Toluene	0.08	ND	0.5	ND	Heavy metals	—			
Other					Other lead	18	2.0	24	ND

Comments (Depth of Remediation, etc.):

- Soil Stock Pile still on site: must be sampled and may be disposed of on-site - closure not granted until the task is executed.

IV. Closure

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes No (Yes circled)

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes No (Yes circled)

Do cleanup levels exceed Regional Board requirements? Yes No (No circled) Identify: —

Rationale for exceeding RB requirements: —

Does corrective action protect public health for current land use? Yes No (Yes circled)

Site management requirements: None -

Should corrective action be reviewed if land use changes? Yes No (No circled)

Monitoring wells Decommissioned: Yes No (No circled) | Number Decommissioned: 0 | Number Retained: 3

List enforcement actions taken: None.

List enforcement actions rescinded: None.

V. Local Agency Representative Data

Name: Peter A. Book | Title: EHS III

Signature: [signature] | Date: 6/6/96

VI. RWQCB Notification

Date Submitted to RB Executive Officer: | RB Response: Concur with case closure.

RWQCB Staff Name: [signature] | Title: Env. Spec III/Sup | Date: 9-9-96

Additional Comments, Data, Etc.

RESOURCE MANAGEMENT AGENCY

county of ventura

Environmental Health Division
Donald W. Koepp
Director

FILE COPY

REMEDIAL ACTION COMPLETION CERTIFICATION

October 19, 1999

Mr. Doug Burhoe
D. W. Burhoe Construction
270 Quail Court
Santa Paula, CA 93060

VCEHD File #95171

Site Name/Address: **C. A. B. Enterprises, 2927 Ventura Boulevard, Oxnard, California**

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required. A copy of the Case Closure Summary for this site is enclosed for your records.

This notice is issued pursuant to a regulation contained in Section 2721(e) of Title 23 of the California Code of Regulations.

If you have any questions regarding this matter, please contact Diane B. Wahl of the LUFT Program staff at (805) 654-2460

Robert Gallagher

Robert Gallagher for
DONALD W. KOEPP, DIRECTOR
ENVIRONMENTAL HEALTH DIVISION
RESOURCE MANAGEMENT AGENCY

DWK/sg/10cab.doc

Enclosure

c: Mark Pumford, Los Angeles Regional Water Quality Control Board
Mike Mosbacher, State Water Resources Control Board
Peter Thams, West Coast Environmental

Case Closure Summary
Leaking Underground Fuel Storage Tank Program

I. Agency Information Date: 07/01/99

Agency Name: Ventura County Environmental Health Div.	Address: 800 South Victoria Avenue
City/State/ZIP: Ventura, CA. 93009-1730	Phone: (805) 654-2460
Responsible Staff Person: Diane B. Wahl	Title: Project Manager

II. Case Information

Site facility Name: C.A.B. ENTERPRISES		
Site facility Address: 2927 VENTURA BOULEVARD, OXNARD, CALIFORNIA		
RB LUSTIS Cases No: - -	Local Case No: C95171	LOP Case No: C95171
URF filing date: 06/27/95	SWEEPS No:	

Responsible Parties	Addresses	Phone No.
DOUG BURHOE	270 QUAIL COURT, SANTA PAULA, CA 93060	805-525 - 7474

Tank No	Size in Gallons	Contents	Closed in Place/Removed?	Date
1	1,000	GASOLINE	REMOVED	06/06/95
2	1,000	DIESEL	REMOVED	06/06/95
3				

III. Release and Site Characterization Information

Cause and type of release: UST SYSTEM RELEASE		
Site characterization complete? YES No	Date approved by oversight agency: 07/01/99	
Monitoring Wells installed? YES* No	Number: * 1 - INSTALLED FOR TANK LEAK DETECTION	Proper screen Yes No ?
Highest GW depth below ground surface: ~4 feet	Lowest depth: ~10 feet	Flow direction: SOUTH TO SE
Most sensitive current use: COMMERCIAL		
Are drinking water wells affected? Yes NO	Aquifer Name: PERCHED AQUIFER	
Is surface water affected Yes NO	~~Nearest/affected~~ SW name: REVLON SLOUGH (4000 ft EAST)	
Off-site beneficial use impacts (address/locations): NONE		
Reports on file? YES No	Where is report(s) filed? VCEHD LUFT PROGRAM	

Treatment and Disposal of Affected Material

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tanks	2 USTs (1,000 gal. ea.)	REMOVED (Standard Industries, Ventura)	06/06/95
Piping	- - -	NOT REPORTED	- -
Free Product	- - -	NOT APPLICABLE	- -
Soil	Unknown Volume- - -	RETURNED TO EXCAVATION	1996
Groundwater	- - -	NOT APPLICABLE	- -
Barrels	- - -	NOT APPLICABLE	- - -

Case Closure Summary
Leaking Underground Fuel Tank Program

III Release and Site Characterization Information (Continued)

Maximum Documented Contaminant Concentrations - - Before and After Cleanup									
Contaminant	Soil (ppm)		Water (ppm)		Contaminant	Soil (ppm)		Water (ppm)	
	before	after	before	after		before	after	before	after
TPH (gas)	2,900	NA	1.4	ND	Xylene	75	NA	0.032	0.0017
TPH (diesel)	7,400	NA	3.6	ND	Ethylbenzene	67	NA	0.0023	ND
Benzene	3.9	NA	0.015	0.0012	Oil & Grease	--	--	--	--
Toluene	6.0	NA	0.0007	0.0008	Heavy metals	76 (lead)	NA	ND	NA
MTBE	0.023	NA	NA	ND	Other	--	--	--	--

Comments: NA = NOT ANALYZED. ND = NOT DETECTED. SOIL "before" = WORST CASE SOIL CONCENTRATIONS FROM TANK PIT. GW "before" = TANK PIT GW GRAB SAMPLE. GW "after" = SAMPLES FROM ADJACENT WELL/BORES. NO ACTIVE REMEDIATION COMPLETED AT THIS SITE. SHALLOW GROUNDWATER PRESENT. SAMPLES FROM ADJACENT WELL/BORE LOCATIONS SUGGEST LITTLE CONTAMINATION HAS SOLUBILIZED TO GROUNDWATER AND GW IMPACTS VERY LIMITED. EXTENT OF SOIL IMPACTS WELL DEFINED AND LIMITED. HEALTH RISK ASSESSMENT INDICATES NO SIGNIFICANT HUMAN HEALTH RISK ASSOCIATED WITH RESIDUAL IMPACTS. UNCERTAIN IF TANK LEAK DETECTION WELL IS STILL PRESENT AT SITE. THIS WELL WAS NOT INSTALLED FOR VCEHD LUFT PROGRAM REQUIREMENTS.

IV. Closure

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? YES No

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? YES No

Do Cleanup levels exceed Regional Board requirements? Yes NO | Identify:

Rationale for exceeding RB requirements:

Does corrective action protect public health for current land use? YES No

Site management requirements: NONE

Should corrective action be reviewed if land use changes? Yes NO

Monitoring wells decommissioned? Yes No ? | Number Decommissioned: | Number Retained:

List enforcement action taken:

List enforcement action rescinded:

V. Local Agency Representative Data

Name: DIANE B WAHL	Title: PROJECT MANAGER
Signature: Diane B Wahl	Date: 07/01/99

VI. RWQCB Notification

Date Submitted to RB Executive Officer 7/8/99	RB Response: CONCUR WITH CASE CLOSURE	
RWQCB Staff Name: Jay Das	Title ~~[illegible]~~ AWRCE	Date: 7/20/99

Additional Comments, Data, Etc. AB 681 Notification to property owners required prior to issuing closure letter. All existing groundwater monitoring wells must be located and properly abandoned.

DAB 7/22/99

GROUNDWATER SOLUTIONS, INC.
Environmental Consulting Services

January 16, 2001

Ed Fudurich
CECO-Wells-LP
3860 Sherman Street
San Diego, California 92110

Subject: **Fourth Quarter 2000 Groundwater Monitoring Report**
Waste Oil Release
Oxnard Truck Center
2101 East Ventura Boulevard
Oxnard, California (VCUTP File No. C87054)

Dear Mr. Fudurich:

On behalf of CECO-Wells-LP, Groundwater Solutions, Inc. (GWS) performed quarterly groundwater monitoring of the three wells associated with the former waste oil release at the above referenced subject site. The work completed during the fourth quarter of 2000 for LUFT site C87054 is presented in this report. Work was conducted in accordance with the September 13, 2000 Ventura County Underground Tank Program (VCUTP) directive. Figure 1 shows the general site location.

Groundwater Monitoring

The depth to groundwater was measured in monitoring wells MW-9, MW-13, and MW-14 relative to the respective wellhead survey location on December 20, 2000. The well-box rim of MW-9 has been destroyed, eliminating the surveyed measurement point. Therefore, an estimation of the former reference point was used to measure the groundwater depth. Measurements were conducted using an electronic measurement instrument scaled in 0.01 foot divisions. The depth to water varied from 16.52 to 16.90 feet below the reference points as shown on Table 1. See Figure 2 for the site features and monitoring well locations.

Groundwater purging was conducted using a submersible pump. Purge volumes ranged from five to 15 gallons. MW-14 produced water slowly compared to the other wells pumping dry after approximately five gallons. The two other wells each yielded 15 gallons without pumping dry. The purged water was monitored multiple times during the purging process for temperature, conductivity, and pH. A copy of the field data is attached in Appendix A. To reduce the risk of cross-contamination, the pumping equipment was cleaned before use in each well with a soapy water wash followed by a double fresh water rinse.

Laboratory Testing

Zymax Envirotechnology, a California state certified laboratory, performed chemical testing of the groundwater samples. Samples were collected from each purged well using a disposable bailer in accordance with accepted environmental protocol. VCUTP was notified of the quarterly sampling 72 hours in advance.

Chemical testing was performed on four samples (includes one duplicate collected from well MW-9) using the full list EPA test method 8260. Total petroleum hydrocarbons (TPH) were quantified over the range of carbon 8 to carbon 40. TPH extraction was performed using EPA method 3510. Table 1 lists the detected 8260 list compounds. Due to the lengthy list of 8260 test method analytes, only detected analytes are listed on the summary table. Laboratory reports contain a complete listing of the analytes evaluated.

Additional testing for fuel oxygenates was performed per recent regulatory guidance. The six fuel oxygenates stipulated by VCUTP are: t-Amyl Methyl Ether, t-Butyl Alcohol, Diisopropyl Ether, Ethyl-t-Butyl Ether, Methyl-t-Butyl Ether (MTBE), and ethanol. Analysis was performed using EPA test method 8260. Table 2 summarizes the oxygenate data. A copy of the laboratory data and the chain-of-custody form are attached as Appendix B.

Groundwater Disposal
The purge water generated during the past sampling event (August, 2000) contained no analyte concentrations exceeding drinking water standards. Accordingly, the water was allowed to evaporate from the concrete paved site. The water generated during the current sampling event remains stored in labeled drums on the subject site.

Discussion
Laboratory data generated this quarter found detectable MTBE in well MW-13 at a concentration of 1.0 part per billion (PPB). No other analytes were detected. The groundwater gradient conformed to historical trends sloping to the northwest (Figure 2).

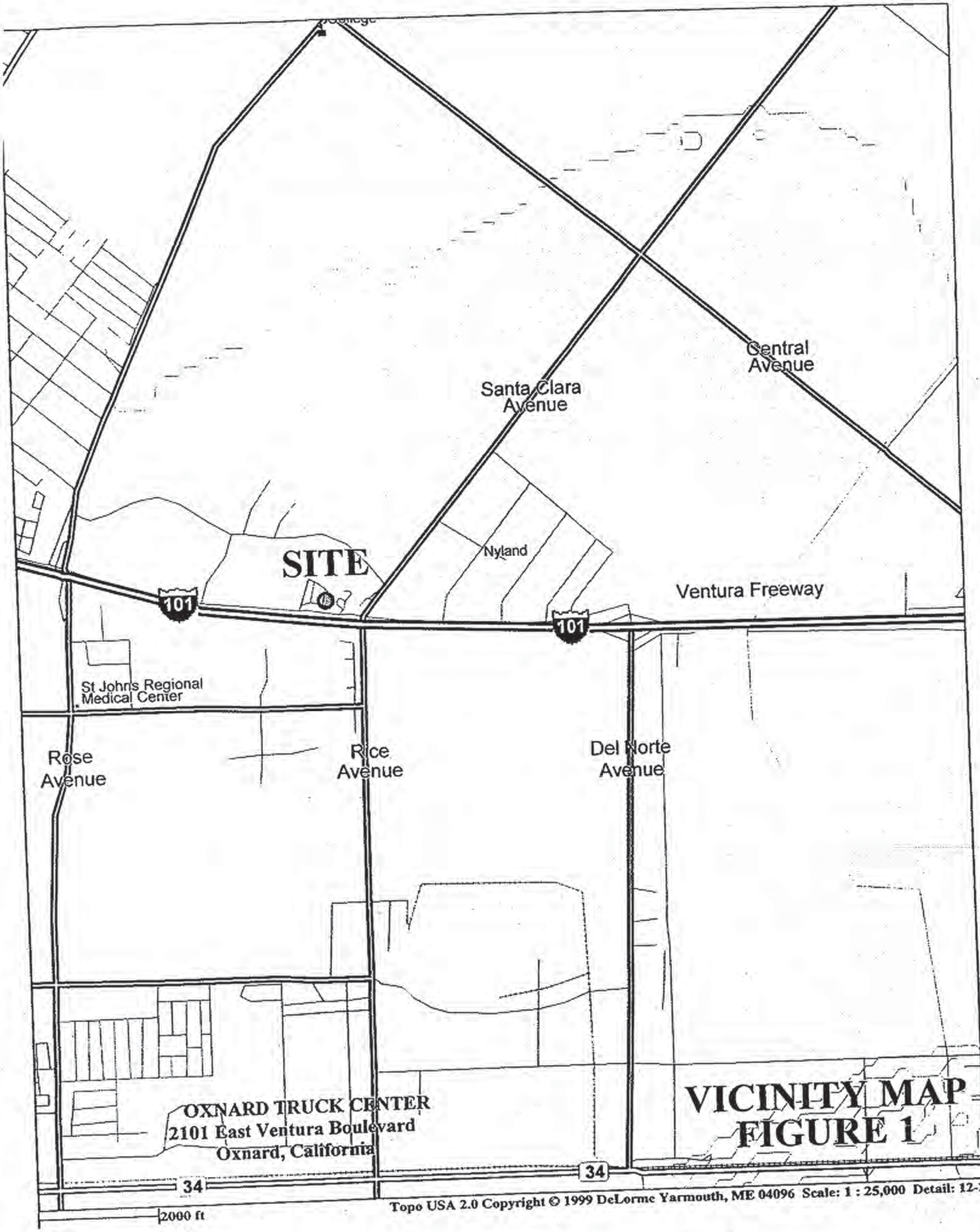
Laboratory data generated this quarter continued to show a trend toward lower analyte concentrations since completion of the remedial waste oil excavation. Each of the three sampling events conducted since completion of the remedial work has shown an improvement in groundwater quality. The deceasing analyte concentrations do not appear related to changes in groundwater elevation.

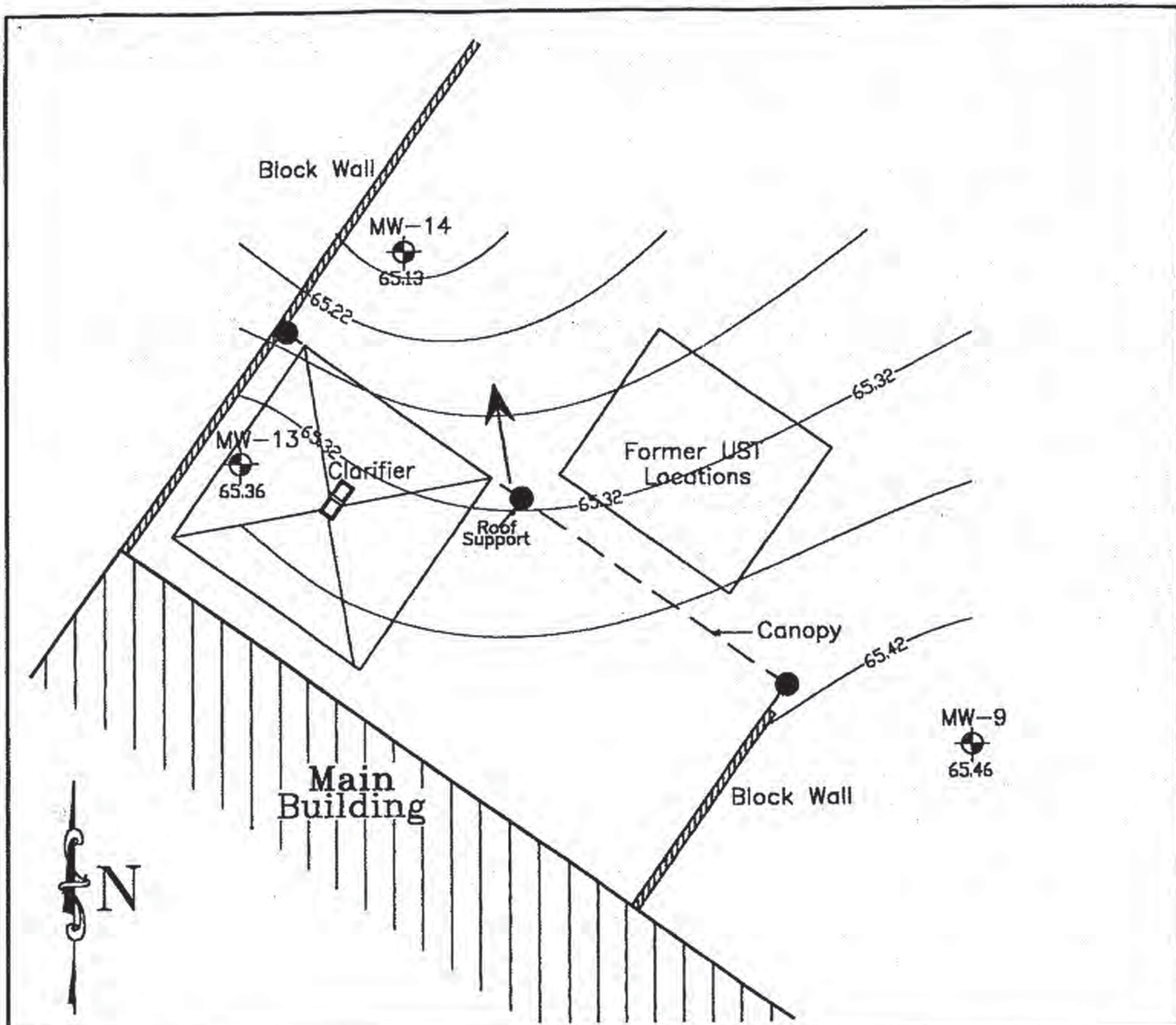
Quarterly groundwater monitoring work has consistently shown that the three wells surrounding the former waste oil release do not contain analytes of the 8260 list or fuel oxygenates at concentrations above established drinking water standards. The only analyte presently found is MTBE at a concentration of 1.0 PPB. The drinking water maximum concentration for MTBE is 5 PPB. Based on the reproducible groundwater chemistry data and the fact that the waste oil source soils have been significantly removed via excavation, GWS recommends that the site be considered for regulatory closure.

Planned Activities
We anticipate that one additional groundwater monitoring event will be necessary to complete one year of post remediation monitoring. Basis this assumption, sampling is scheduled for the first quarter of 2001 unless directed otherwise.

In the event that you require any additional information or wish to discuss this report please contact the undersigned at (805) 965-7505.

End of Text


SITE
Ventura Freeway
101
101
Santa Clara
Avenue
Central
Avenue
Nyland
St Johns Regional
Medical Center
Rose
Avenue
Rice
Avenue
Del Norte
Avenue
34
34
2000 ft
OXNARD TRUCK CENTER
2101 East Ventura Boulevard
Oxnard, California
VICINITY MAP
FIGURE 1
Topo USA 2.0 Copyright © 1999 DeLorme Yarmouth, ME 04096 Scale: 1 : 25,000 Detail: 12-2



Explanation

Monitoring Well Location showing Groundwater Elevation

66.48 Line of Equal Elevation

Approximate Groundwater Flow Direction

0 20

Approximate Scale in Feet

Groundwater Solutions, Inc.

2101 East Ventura Blvd. Oxnard, California	GROUNDWATER GRADIENT MAP (December, 2000)	FIGURE 2

CapRock
Geology and Environmental

P.O. Box 6069, Ventura, CA 93006-6069
TEL: 805 / 644-3397 FAX: 644-7580 PAGER: 655-2366
EMAIL: mbarminski@aol.com

APR 10 2002

Ventura County Environmental Health Department LUFT
800 S. Victoria Avenue
Ventura, CA 93009-1730

March 31, 2002
Project Number: V-1007-06

Attention: Mr. Craig Klein

WORKPLAN FOR SITE CLOSURE VERIFICATION SAMPLING
Former Ace K. Hall Site
3601 Nyland Avenue, Oxnard, CALIFORNIA
VCEHD-LUFT FILE # C 86027

1.0 Introduction

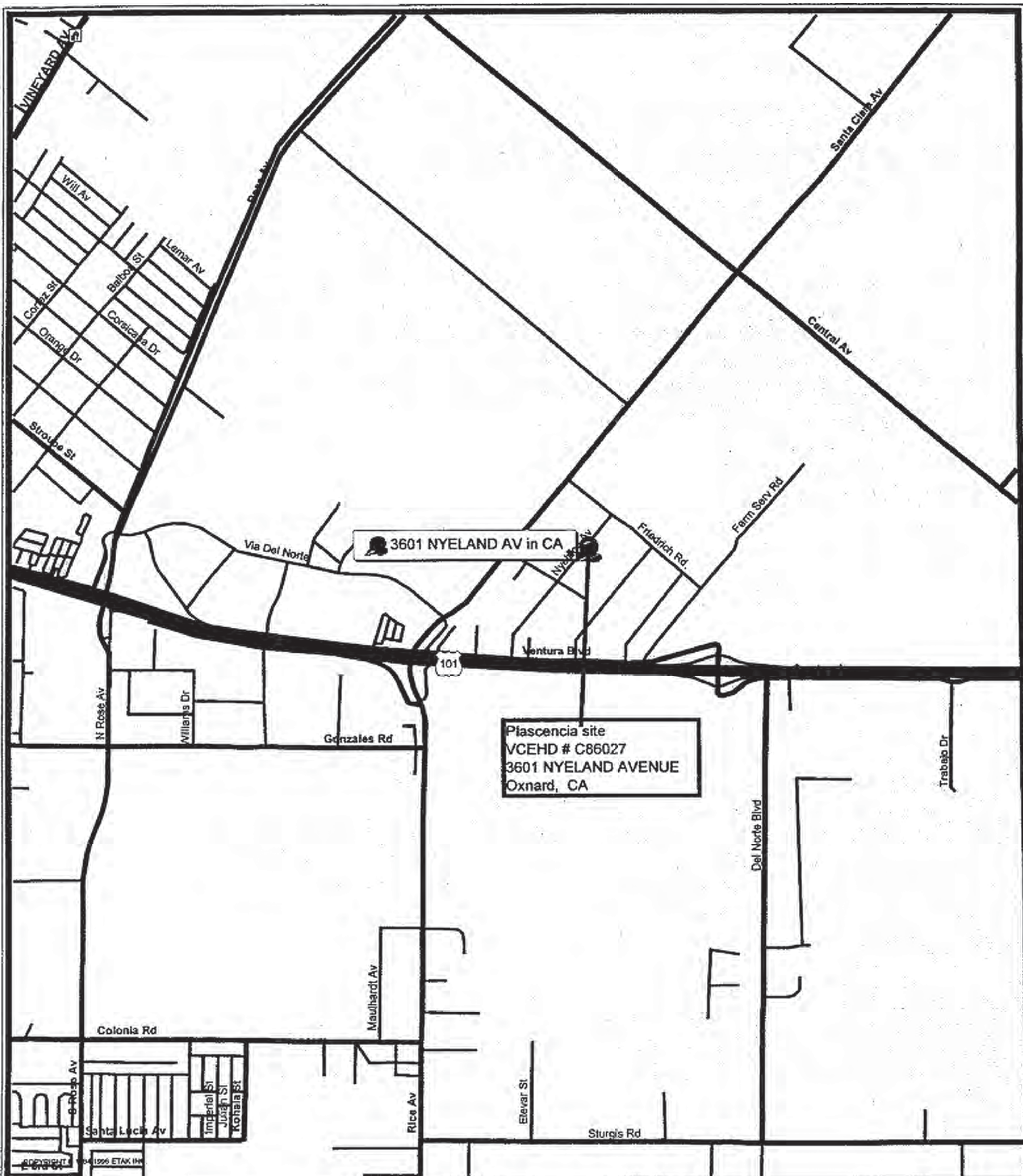
The Ventura County Environmental Health Department (VCEHD) LUFT program has required that additional assessment of the above mentioned site be conducted. The objectives of the requested additional investigation are to "determine if remediation", and natural attenuation, "have reduced contamination to acceptable levels."

2.0 Site Description

The site is located in Oxnard, California (Plate 1) at 3601 Nyland Avenue. The subject property previously contained two 500-gallon underground tanks. The tanks were removed and soil contamination was encountered during removal and subsequent investigations.

During previous excavation work, it was determined that the soils encountered at the site consisted of unconsolidated alluvial or flood plain deposits. In general, soils were silts with clay and sands. The excavation was completed to depths of 14 feet below ground surface (bgs) and groundwater was encountered at approximately 12.5 feet bgs. The excavation was conducted by trenching across a suspected tank location. Soil samples were collected and analyzed at depths of 6.5, 10 and 11.5 feet bgs in the exploratory trench. The results indicated decreasing petroleum hydrocarbons with depth to trace levels at 11.5 feet bgs; however, subsequent investigation did not confirm this. Petroleum hydrocarbons were detected as gasoline only; tests for diesel were non-detectable for all samples.

Site Location Map Plate 1



3.0 CLIMATE AND TOPOGRAPHY

The Site is located on the Oxnard Plain. The topography in the area slopes gently at an approximate 0.3 percent grade to the west/southwest. Surface water drains west to southwesterly as represented by the Santa Clara River and Callegaus Creek to the north and southwest of the subject Site, respectively. The average annual precipitation between 1936 and 1974 was approximately 14 inches (VCDPW, 1984).

3.1 HYDROGEOLOGY

The Site is located within the Oxnard Pressure Basin, and is underlain by an upper unconfined semi-perched groundwater zone above the two principal groundwater aquifer systems identified as the Upper Aquifer System (UAS) and the Lower Aquifer System (LAS). Groundwater within the UAS and LAS systems is generally confined.

The unconfined semi-perched zone is located above a confining layer known as the "clay cap" in the area of the Site (VCDPW, 1975). Groundwater in the semi-perched zone is typically encountered 8 to 25 feet below ground surface (bgs). The semi-perched zone consists primarily of geologically recent stream sands and gravels (Qal) with minor silt and clay interbeds to an average depth of 90 feet. The shallow groundwater generally flows to the southwest and is high in total dissolved solids (TDS) and nitrates. Historically, there have been few wells completed within this zone because of poor yield and poor water quality.

The "clay cap" aquitard underneath the semi-perched zone is encountered about 90 feet bgs and extends to the top of the UAS. This confining clay unit consists predominantly of silt, clay, and silty-clay extending to depths of 115-120 feet bgs in the vicinity of the Site. The UAS consists of upper Pleistocene formations and includes the Oxnard aquifer zone and Mugu aquifer. These aquifers consist primarily of permeable sand and gravel with interbedded silt and clay. The potentiometric level of groundwater within the Oxnard aquifer zone, the shallowest aquifer, occurred at an approximate depth of 18 feet bgs in 1993 (VCPWD, 1993). Groundwater within this zone flows to the west/southwest under a 0.04 to 0.26 percent gradient regionally. The TDS concentration of groundwater in the UAS is generally more than the 1,000 parts per million (ppm), which is above the upper limit of the secondary drinking water standard. The Oxnard aquifer zone and Mugu aquifer are in hydraulic communication with each other.

The LAS consists of lower Pleistocene formations and includes the Hueneme and Fox Canyon aquifers. The LAS occurs at depths greater than 420 feet bgs in the vicinity of the Site. Water quality within the LAS is generally better than in the UAS with TDS averaging between 750 and 1000 ppm, still above the secondary drinking water standard.

4.2 On June 10, 1999, CapRock performed additional subsurface investigation at the Site by hydro-punching six borings (GP1 through GP6) to collect soil and groundwater samples. The work was performed following the guidelines and protocols in the workplan approved by the VCEHD-LUFT program project manager, Mr. Craig Klein. Prior to starting field work, Underground Service Alert was notified to mark underground utility locations at the Site. A CapRock registered geologist directed the work, and soil and sampling conditions were recorded on the boring logs. Mr. Ken MacCalrood of the VCEHD-LUFT was present to witness the work. Six water samples and twenty-two soil samples were submitted to a certified laboratory for analysis of petroleum hydrocarbons as gasoline (TPHg) by EPA method 8015M and volatile hydrocarbons (BTEX & MTBE) by EPA method 8020. The results of the soil sampling are presented in Table 1 and the water results are presented on Table 2.

The soils beneath the Site consist of clayey silts, silts, silty sands and poor to well graded sands. During this investigation, groundwater was encountered at 10-12 feet bgs.

Soil samples from borings GP1 and GP2 were non-detectable (ND) for petroleum hydrocarbons. The other four borings all had petroleum hydrocarbons detected, with the highest levels detected at the 12-foot depth. The highest levels of petroleum hydrocarbons detected were at GP5.

Groundwater was collected from each boring. Location GP1 had no detectable petroleum hydrocarbons. The highest levels of TPHg were detected at GP4. The highest levels of benzene and MTBE were detected at GP5.

The Site is located in the Oxnard Pressure Basin, an area of known high TDS and nitrate levels in groundwater. The Oxnard Pressure Basin is underlain by a clay aquitard which separates it from the other aquifers. The shallow semi-perched zone which contains the first encountered groundwater at the site is not considered a beneficial water source.

The shallow subsurface soils at the site are a mixture of sand silt and clay layers which inhibit the transport of groundwater and other compounds both laterally and vertically.

A two-inch, schedule 40 PVC monitoring well was installed at each of the four boring locations. The wells were developed and surveyed. Subsequently on June 26, 2000, groundwater was collected from each well. A trace level of benzene (0.3 μg/kg) was detected in well MW-1. No other hydrocarbons were detected in any of the other wells.

No MTBE was detected in soil or groundwater at the site during this investigation.

At the completion of this investigation it was concluded that soil and groundwater at the Site are both impacted with petroleum hydrocarbons. Soil impact appears to be concentrated in a zone from approximately 7-13 feet bgs with the highest levels at 12 feet bgs. The vertical limits of soil impact appear to be defined. Previously, location GP5 had the highest levels of petroleum hydrocarbons in soil, and GP5 and GP4 had the highest levels of petroleum impact in groundwater. Currently, only well MW-1 indicates groundwater impact. Based on the results of this investigation, CapRock recommends that quarterly groundwater monitoring be continued.

6.0 Conclusions Based on Previous Work

Previously, soil and groundwater at the Site were found to be impacted with petroleum hydrocarbons. Soil impact appears to be concentrated in a zone from approximately 7-13 feet bgs with the highest levels at 12 feet bgs. The vertical limits of soil impact appear to be defined at 13-14 feet deep. Location GP5 had the highest levels of petroleum hydrocarbons in soil, and GP4 had the highest levels in groundwater, with locations PH1, GP3, and MW4 having previously had significant levels of petroleum impact in soil, groundwater or both.

7.0 Work Plan Objectives

1. Obtain data concerning the distribution and extent of hydrocarbons in the groundwater and general groundwater parameters beneath the Site.
2. Analyze the site data to develop conclusions and recommendations regarding the hydrocarbon impact to groundwater at the Site.
3. Obtain data concerning the lateral and vertical distribution of hydrocarbon impacted soil at the Site.
4. Analyze the site soil data to develop conclusions and recommendations regarding the extent of hydrocarbon impact to soil at the Site.

7.1 Scope of Work

Specific tasks designed to accomplish the objectives are as follows:

1. Develop a Work Plan (a Site Health and Safety Plan has been previously submitted).
2. Coordinate and schedule a well drilling contractor holding a C-57 license to drill five soil borings to the groundwater interface (estimated at 8-12 feet deep); the borings will then be continued through the saturated zone to approximately 20 feet deep; soil samples will be collected in each boring at 7, 12, 15 and 20 foot depths. The borings will be used to determine subsurface soil conditions using visual inspection, soil classification, and qualitative field screening for hydrocarbons using a photo-ionization detector. A Site Vicinity Map and a Proposed Boring Location Map are attached to this workplan. The verification borings will correspond to the former sample locations PH1, GP3, GP4, GP5, and MW4.
3. Submit the soil samples for laboratory analysis. All samples submitted will be analyzed for the presence of benzene, toluene, ethylbenzene, and xylenes (BTEX), MTBE, fuel oxygenates, and total petroleum hydrocarbons as gasoline (TPHg). Samples will be collected using EPA 5035 methods.
4. Prepare a report of findings and conclusions.

FILE COPY

Environmental Health Division
Robert Gallagher
Director

April 23, 2002

File #C86027

Mr. Alfredo Plascencia
800 South Victoria Avenue
Ventura, CA 93009-1600

FORMER ACE K. HALL SITE, 3601 NYELAND AVENUE, OXNARD, CALIFORNIA

The Ventura County Environmental Health Division (VCEHD) staff received your *Workplan for Site Closure Verification Sampling,* dated March 31, 2002, for the above-referenced site. After review of this request and the file, the workplan is approved with the following conditions and comments:

1. The boring/sampling locations are approved as proposed.

2. Please be advised that site assessment and remediation must continue to qualify for reimbursement eligibility of cleanup expenditures under SB 2004. Sites that are not in compliance are not eligible for reimbursement under SB 2004.

3. If additional time is needed to complete the soil sampling and submit a report to this office, an extension may be granted should good reason be presented.

4. It will be your responsibility to obtain all necessary permits and approvals from the appropriate agencies for conducting activities at the site. Copies must be maintained on site while working on the project and a copy of each submitted to this office.

5. A report of the soil sampling and analyses must be submitted to this office by June 15, 2002. This report should include the evaluation of the necessity for additional assessment/remediation activities with subsequent recommendations for future work or site closure. Should site closure be requested, supporting data (RBCA analysis, etc.) and reasoning must be submitted.

All work plans, reports, corrective action proposals, soil and water sampling, and analytical work must comply with the guidelines in Ventura County's *Leaking Underground Fuel Tank (LUFT) Guidance Manual*, dated April 2001. We recommend that you become familiar with this document, especially the report content requirements presented in sections A, B and C of Chapter V.

Effective September 1, 2001, all laboratory data must be submitted in Electronic Deliverable Format (EDF) in accord with AB2886 (Water Code Sections 13195-13198) and the emergency regulations adopted by the State Water Resources Control Board (Article 12, Chapter 16, Division 3, Title 23 of the California Code of Regulations). Electronic reporting of data to this agency will be in addition to submittal of hard copy (paper) data typically included with site investigation and quarterly monitoring reports. VCEHD strongly recommends that you ensure that your analytical laboratory is capable of providing EDF. In addition to EDF, electronic reporting of monitoring well locations and data related to monitoring well elevations will be required as of January 1, 2002. The requirements cited in this and the preceding paragraph apply to all LUFT sites.

If you have any questions, please contact me at (805) 662-6510.

K. Craig Klein

K. CRAIG KLEIN
LUFT PROGRAM
ENVIRONMENTAL HEALTH DIVISION

mb: admin/tanks/luft/4-kck-acekhall

c: Michael Barminsky, CapRock

RESOURCE MANAGEMENT AGENCY FILE COPY
county of ventura
Environmental Health Division
Donald W. Koepp
Director

REMEDIAL ACTION COMPLETION CERTIFICATION

September 22, 1998

VCEHD File #98009

Patti and Fred Rosenmund
162 South A Street
Oxnard, CA 93030

Robert Clark
Con-Way Transportation Services, Inc.
3340 Hillview Avenue
Palo Alto, CA 94304

Site Name/Address: Con-Way Transportation Services, Inc., 700 Maulhardt Avenue, Oxnard, California

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required. A copy of the Case Closure Summary for this site is enclosed for your records.

This notice is issued pursuant to a regulation contained in Section 2721(e) of Title 23 of the California Code of Regulations.

If you have any questions regarding this matter, please contact K. Craig Klein of the LUFT Program staff at (805) 662-6510.

Donald W Koepp

DONALD W. KOEPP, DIRECTOR
ENVIRONMENTAL HEALTH DIVISION
RESOURCE MANAGEMENT AGENCY

DWK/sg/9conway.clo

Enclosure

c: Mark Pumford, Los Angeles Regional Water Quality Control Board
Mike Mosbacher, State Water Resources Control Board
Steve Elkington, City of Oxnard, Fire Department, CUPA

Case Closure Summary

Leaking Underground Fuel Storage Tank Program

I. Agency Information

Date: August 19, 1998

Agency Name: Ventura County Environmental Health Div.	Address: 800 South Victoria Avenue
City/State/ZIP: Ventura, CA. 93009-1730	Phone: (805 662-6510
Responsible Staff Person: K. Craig Klein	Title: Project Manager

II. Case Information

Site facility name: Con-Way Transportation Services, Inc.		
Site facility Address: 700 Maulhardt Ave., Oxnard, CA 93031		
RB LUSTIS Case No: C98009	Local Case No: C98009	LOP Case No: C98009
URF filing date: 03/25/98	SWEEPS No:	

Responsible Parties	Addresses	Phone No.
Patti & Fred Rosenmund	162 South "A" St. Oxnard, CA 93030	(805) 483-8023
Robert Clark, Con-Way Transportation Services, Inc.	3340 Hillview Ave. Palo Alto, CA	

Tank No	Size in Gallons	Contents	Closed in Place/Removed?	Date
1	10,000	Diesel	Removed	03/12/98
2	10,000	Diesel	Removed	03/12/98

III. Release and Site Characterization Information

Cause and type of release: Overfill/Overspill		
Site characterization complete? Yes No	Date approved by oversight agency: 08/17/97	
Monitoring Wells installed? Yes No	Number:	Proper screen Yes No
Highest GW depth below ground surface: ~9-11 ft.	Lowest depth ~9-11 ft.	Flow direction: SW
Most sensitive current use: None		
Are drinking water wells affected? Yes No	Aquifer Name: Oxnard/Fox Canyon	
Is surface water affected Yes No	Nearest/affected SW name: Santa Clara River	
Off-site beneficial use impacts (address/locations): None		
Reports on file? Yes No	Where is report(s) filed? VCEHD	

Treatment and Disposal of affected Material

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	2 - 10,000 Gal.	Transported to Standard Ind. (Ventura) for recycling	03/12/98
Piping	various	Transported to Standard Ind. (Ventura) for recycling	03/12/98
Free Product			
Soil	not determined	Aerated onsite and backfilled into tank pit	
Groundwater			
Barrels			

Case Closure Summary

Leaking Underground Fuel Tank Program

III Release and Site Characterization Information (Continued)

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppm)		Contaminant	Soil (ppm)		Water (ppm)	
	before	after	before	after		before	after	before	after
TPH (gas)	NA	NA	NA	NA	Xylene	ND	ND	ND	ND
TPH (diesel)	46	ND	4.8	ND	Ethylbenzene	ND	ND	ND	ND
Benzene	ND	NA	ND	ND	Oil & Grease				
Toluene	ND	NA	ND	ND	Heavy metals (Pb)	NA	NA	NA	NA
MTBE	NA	NA	NA	NA	Other				

Minor diesel contamination was found in soil samples collected. Contamination was found in ponded groundwater during tank removal activities. No BTEX contamination was present in soil or groundwater. Subsequent soil and groundwater sampling (Geoprobe®) indicates contaminant concentrations are presently below detection limits in soil and groundwater. Contamination was found to be very localized.

IV. Closure

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes No	
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes No	
Do Cleanup levels exceed Regional Board requirements? Yes No	Identify:
Rationale for exceeding RB requirements:	
Does corrective action protect public health for current land use? Yes No	
Site management requirements:	
Should corrective action be reviewed if land use changes? Yes No	
Monitoring wells decommissioned? ~~Yes No~~ N.A.	Number Decommissioned: NA. / Number Retained: NA.
List enforcement action taken:	
List enforcement action rescinded:	

V. Local Agency Representative Data

Name: K. Craig Klein	Title: Project Manager
Signature: K. Craig Klein	Date: 08/19/98

VI. RWQCB Notification

Date Submitted to RB Executive Officer 8/31/98	RB Response: CONCUR WITH CASE CLOSURE	
RWQCB Staff Name: J. Das	Title AWRCE	Date: 9/15/98
Additional Comments, Data, Etc.		

[illegible signature]

APPLIED ENVIRONMENTAL TECHNOLOGIES INC.
4840 Market St., Suite B • Ventura, CA 93003 • Phone: (805) 650-1400 Fax: (805) 650-1576

December 23, 1996
Job No. 0093-02

Ventura County Environmental Health
Underground Tank Program
800 South Victoria Avenue
Ventura, California 93009

Attention: Mr. Michael McFadden

Water Quality Sampling (Fourth Quarter 1996), Eckhart Trailer Hitches Site, at 2701 Ventura Boulevard, Oxnard, California (VCEHD File #C87098)

Introduction

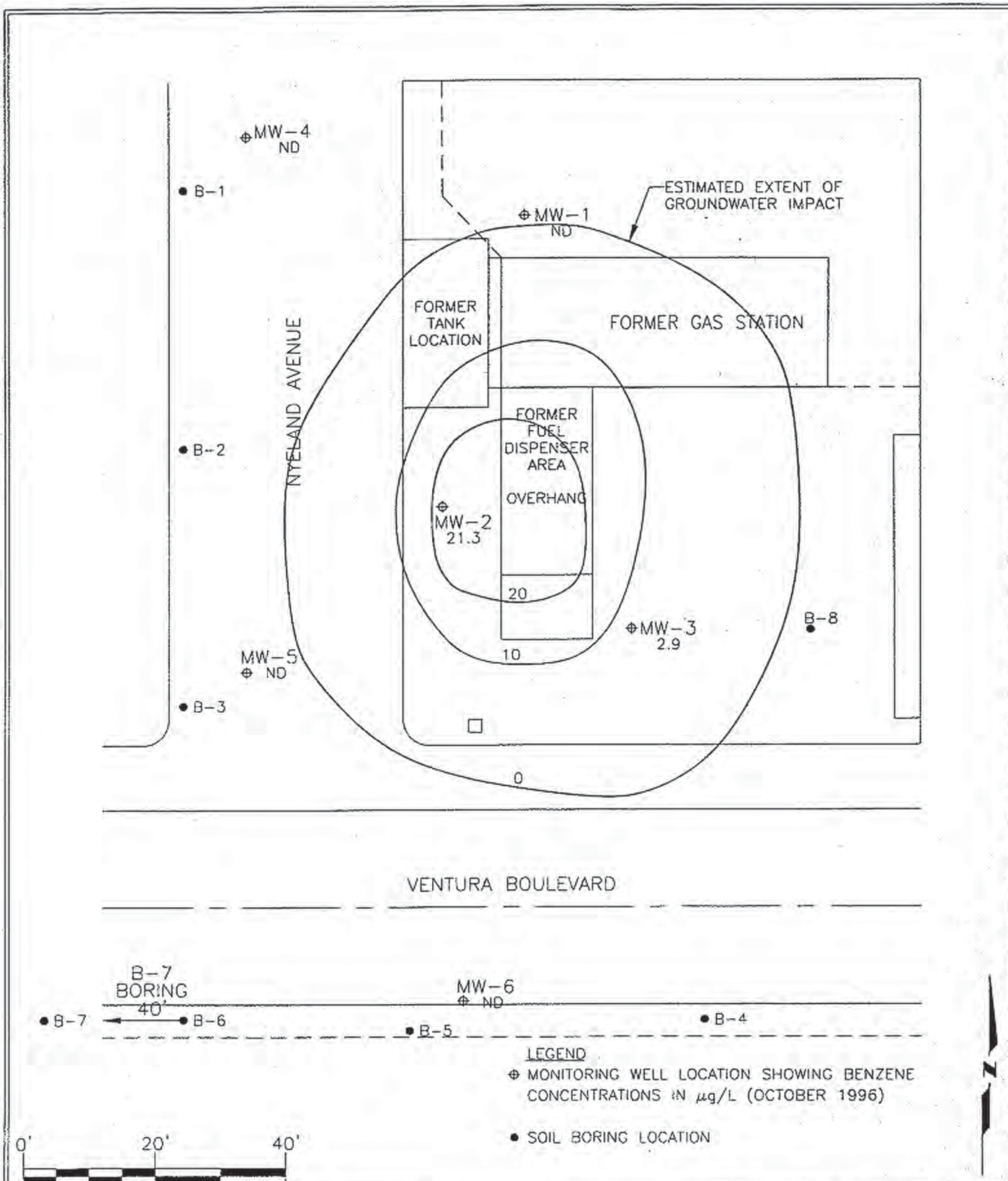
On October 24, 1996, at the request of the Gilbert Sawtelle Trust, Applied Environmental Technologies, Inc. (AET) collected groundwater samples from the 6 monitoring wells installed for an assessment of petroleum hydrocarbon impacted groundwater at the referenced site Plate 1). A trip blank (TB-1) and duplicate sample (DS-1), collected from well MW-2, also accompanied the groundwater samples to the laboratory for analysis as a check on quality control. The samples collected represent the quarterly sampling (Fourth Quarter 1996) as required by the Ventura County Environmental Health Division (VCEHD). The samples were collected and analyzed according to County and State requirements.

Groundwater Monitoring

The total well depth and depth to water at each well location were measured by AET personnel prior to sampling. The measurements were recorded on the Groundwater Sampling Data Field Sheets (see Attachment A). The relative well head elevations were previously determined by survey methods. The depth to water and survey information were used to calculate the relative groundwater elevation at each well location. From this information, the groundwater gradient and flow direction were determined for the site at the time of the sampling.

Groundwater Sampling

Prior to sampling the total well depth and depth to water at each well location were measured by AET personnel. The wells were purged using a submersible pump to remove a minimum of three well volumes to ensure representative formation samples. The physical parameters of the purge water (including temperature, conductivity and pH) were monitored and allowed to stabilize prior to the sampling of the wells. Field observations and purge data were recorded on the groundwater sampling and well purge data sheets which are included in



Applied Environmental Technologies, Inc.

DISTRIBUTION OF BENZENE IN GROUNDWATER (OCTOBER 1996)

2701 Ventura Boulevard
Oxnard, California

PLATE 4

PROJECT NUMBER 0093-02

12-23-96

July 14, 1986

ENRXIRONMENTAL HEALTH DEPT.
800 So. Victoria Ave.
Ventura, CA 93009

Attention: Gregory Smith

RE: Underground Tanks
3601 Nyeland Ave., Oxnard

This is to report that no hazardous substances were released from the removal of the tanks and the results of all investigations completed to determine the soil, groundwater and surface water contaminations is negative.

The method of cleanup was done with a tractor and a truck to load and haul all dirt to the dump, the cost for this was $425.00.

Since there were no contaminations nor hazardous substances released I propose that the cleanup is completed. The tanks were taken to San Buenaventura Recycling their telephone number is (805) 658-8377.

Thank You,

Alfredo Plascencia
(805) 983-3601

For further information:

California Department of Health Services
601 North 7th Street
Sacramento, CA 94234-7320
Telephone 1-800-745-7236

For specific questions:

J. David Quinton
DHS Radon Program Manager
Telephone 916-324-2208

EPA documents available from DHS:

- *A Citizen's Guide to Radon*
- *Home Buyer's & Seller's Guide to Radon*
- *A Physician's Guide to Radon*
- *Radon Resistant New Construction*
- *Consumer's Guide to Radon Reduction*

What Is Radon?

Radon is a naturally occurring, cancer-causing, radioactive gas.

It is produced by the normal decay of uranium, an element that is found in nearly all soils.

Impossible to detect without a test, radon gas is colorless, odorless, and tasteless.

State of California
Department of Health Services
Environmental Management Branch
601 North 7th Street
P.O. Box 942732
Sacramento, CA 94234-7320

California
Department of
Health Services
Environmental Management Branch · Radon Program

Radon in California

Radon gas levels in California.

To date, surveys indicate that elevated radon levels can be found in any part of the state. The estimated number of California homes exceeding the recommended **U.S. Environmental Protection Agency's (EPA's)** action level of 4 picoCuries is roughly one percent, or approximately 100,000 homes. The **California Department of Health Services (DHS)**, along with the **U.S. Geological Survey (USGS)** and EPA, have identified several areas with a higher-than-statewide-average of homes with high radon levels. These areas include sections of Santa Barbara, Ventura and Los Angeles counties. Ongoing testing by DHS in these and other counties continues to identify areas of high radon potential.

In addition to geographic location, other factors can affect radon levels, such as house structure, soil/house pressures, climatic conditions, and soil permeability. If you are concerned about radon gas, DHS recommends testing. Testing is the **only way** to determine the radon level in your home.

What are the health risks of radon?

The U.S. Surgeon General has warned that radon is the second leading cause of lung cancer in the United States -- after smoking. A known human carcinogen, radon is estimated to cause approximately 1,100 lung cancer deaths per year in California. DHS and EPA believe that any radon exposure carries some risk -- no level of radon is safe.

How can radon affect you and your family?

Everyone who breathes is at risk from radon. As radon decays, it changes into other radioactive elements. These elements can become trapped in the lungs as the radon decay process releases energy in the form of particles. Over the course of a lifetime, this process can damage lung tissue and increase the risk of lung cancer.

Your risk of developing lung cancer from radon gas depends on:

- How much radon is in the home.
- The amount of time spent at home.
- Whether you are a smoker (or if you have ever smoked – smoking combined with radon is an especially serious lung cancer risk).

How does radon enter the home?

Typically, radon gas moves up through the soil into your home through cracks in the foundation and walls, pores in hollow-block walls, and gaps in suspended floors and around service pipes.

Homes often draw in radon because of differences in pressure caused by a variety of factors. Your home can trap radon inside, where it can build up to elevated levels.

Radon can also be present in well water, which then is released into the air by showering or other water usage. In most cases, radon in water is a small risk compared to radon gas entering the home from the soil.

How is radon gas detected?

Since you can't see, smell, feel or taste radon gas, you need specialized equipment to test for it. The types of commercially available detectors that can be purchased by home owners are:

- Charcoal canister (or liquid scintillation device) designed for short-term screening (two to seven days).
- Filtered or unfiltered alpha track detector for longer-term measurement (generally three months to one year).

These detectors usually cost less than $20, which includes postage and the test report.

All types of detectors are acceptable, but since the amount of radon gas escaping from the ground varies from day-to-day and season-to-season, the longer-term test will give you a more representative assessment of your actual radon gas exposure.

Test kits are available in some hardware stores and home improvement centers. Whether using a short- or long-term test, use a device that is state-certified by DHS. A list of mail-order companies handling certified detectors is available from DHS. If you wish to hire a company to conduct testing for you, make sure it is also certified by DHS.

What do test results mean?

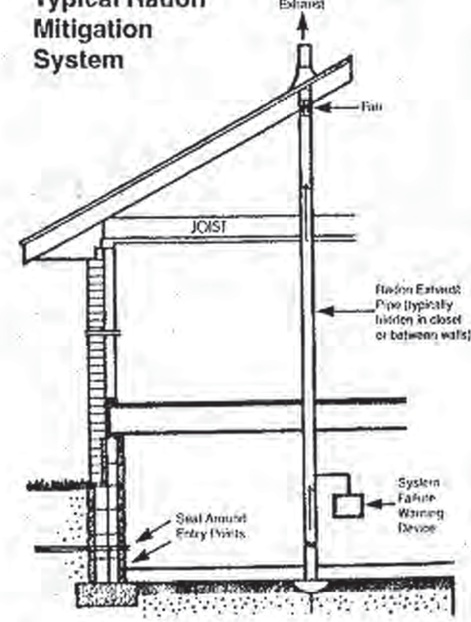
Radon gas is measured in picoCuries per liter (pCi/L). Average radon concentrations range from about 0.4 pCi/L outdoors to around 1.3 pCi/L indoors. If short-term tests register levels of 4 pCi/L or higher, DHS and EPA recommend testing with a long-term test (for a better understanding of your year-round average). If you need results right away, verify the first test with a second short-term test. If results are still above 4 pCi/L, you should correct the problem. Radon levels below 4 pCi/L still pose some risk, therefore you may wish to consider further reductions. The higher the radon level, the greater the risk of lung cancer.

What if the test results are high?

There are several methods of lowering radon levels in your home. Some techniques prevent radon from infiltrating, while others reduce the radon gas after it has already entered the home. Usually, DHS and EPA recommend those methods that **prevent** the entry of radon.

Lowering high radon levels requires technical knowledge and special skills; therefore a trained contractor should be used. DHS can provide a list of state-certified contractors. The cost of making repairs to reduce radon gas depends on a variety of factors, but for most homes such repairs will range from approximately $500 to $2,500.

Typical Radon Mitigation System



Radon tests and contractors must be certified.

To ensure consumer protection, DHS regulates the radon service industry through a state certification program. Any company providing radon services to the public must be certified and provide its certification number to clients.

Also, California has a real estate disclosure law that requires the disclosure of known environmental hazards, including radon, by the seller to the buyer.

RBF CONSULTING

PHONE LOG

_____ Incoming Call
X Outgoing Call

Job No. 30-100333
Date 7/3/02

Individual Contact Craig
Title Inspector
Company / Agency City of Oxnard
Address Fire Department
Administrative HQ

By Richard Beck
Phone (805) 385-7722
Project Name Sakioka
Phase I ESA

Subject of Contact USTs within Subject site.

Items Discussed

Craig indicated that records are maintained only by street address. He attempted to search via the APNs, however no properties were found. In Fact there were no records for USTs with page 030 of the parcel maps.

Action to be Taken Craig mentioned that the County maintains records for farm sites (usually).

RBF will contact County for search if available.

Route To

RBF CONSULTING

PHONE LOG

______ Incoming Call
X Outgoing Call

Job No. 30-100333
Date 7/3/02

Individual Contact: Clerk.
Title:
Company / Agency: Co. of Ventura
Address: Fire Department

By: Richard Beck
Phone: (805) 389-9710
Project Name: Sakioka Farms.

Subject of Contact: USTs / Haz. Mat. Spills on-site.

Items Discussed:

(1) Attempted UST search.
- No records found.

Action to be Taken: Refer back to City of Oxnard Fire Department for record review.

Route To: —

RBF CONSULTING

PHONE LOG

X Incoming Call
Outgoing Call

Job No. 30-100310
Date 7/8/02

Individual Contact Victor
Title Records Clerk
Company / Agency RWQCB-4
Address

By Richard Beck
Phone ( )
Project Name Sakioka Farms.

Subject of Contact Re: File Review Request

Items Discussed

Victor noted that the Lead Agency for all properties that have reported VLusts around the propert is handled by the County of Ventura.

Action to be Taken Will contact the Co. of Ventura Dept. of Env. Health.

Route To —

PLANNING ■ DESIGN ■ CONSTRUCTION

Offices located throughout California, Arizona & Nevada ■ www.RBF.com

RBF CONSULTING

PHONE LOG

_____ Incoming Call
X Outgoing Call

Job No. 30-100333
Date 7/10/02

Individual Contact George, Gala (GIS)
Title
Company / Agency City of Oxnard
Address Development Services Dept.

By Richard Beck
Phone (805) 385-7925
Project Name Sakioka Farms Phase I ESA

Subject of Contact Building Department Records

Items Discussed

APN Search in GIS.

One (1) address found: 2190 Rice Avenue

George assigns address X7890
Gala in GIS X7980

Currently Farmland.

Action to be Taken —

Route To —

RBF CONSULTING

MEETING NOTES

Job No. 30-100330

Date July 23, 2002

Project Name

Attendance R. Beck

2001

JANUARY

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ACTION ITEMS

EL RIO
FUKUTOMI FARMS, INC.

BRIAN FUKUTOMI

P. O. Box 5736
OXNARD, CA 93031

OFFICE (805) 485-5461
FAX (805) 485-1878

AGENDA DISCUSSION

Met with Mr. Fukutomi, who leases a portion of the subject site from SAKIOKA FAMS.

Toured site.

Mr. Fukutomi says his family has farmed the site approximately the last 30 years. Mr. Fukutomi knew of no underground storage tanks on-site past/or present. No hazardous spills or releases were known.

Mr. Fukutomi indicated he usually harvests strawberries.

Mr. Fukutomi indicated where storage areas mixing areas and ASTs are located on-site. To his knowledge no dumping/cleaning has taken place. Mr. Fukutomi knew of water wells located throughout the subject site.

RBF will contact the two (2) other tenants.

RBF CONSULTING

MEETING NOTES

Job No. 30-100333

Date July 23, 2002

Project Name

Attendance R. Beck

2001

JANUARY

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OCTOBER

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NOVEMBER

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ACTION ITEMS

Rodriguez On-site Worker within AREA 3.

AGENDA DISCUSSION

Mr. Rodriguez indicated the location of the diesel/gas ASTs and storage areas.

To his knowledge, no underground storage tanks exist on-site.

He indicated that on-site chemicals are within the locked storage trailer.

Fertilizer was noted within Area 3, in which the workers (3) were currently working with.

Arthur M. Sakioka
684 Cawelti Rd
Camarillo, CA 93012
(805) 484-2165
Fax (805) 484-8292

facsimile transmittal

INTERVIEW

To: Richard Beck		**Fax:**	(949) 837-4122
From: Craig Kaihara (Sakioka Farms)		**Date:**	7/24/02 805-377-1966
Re: Phase 1 Information		**Pages:**	1
CC:			

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

Richard here is the names of the people to contacts for the pesticide use by our tenants on the property. I apologize for not getting them to you sooner. If I can be of any other help please give me a call.

✓ Hiji Bros. Inc.
✓ Vegetables Tom Nagel/ Western Farm Service 487-4961 Ext. 141
✓ Strawberries Doug Mita / Bayview Berry Farms 857-1048

Pacifico Berry Farms
✓ Brian Benchwick Tri Cal Inc. Office – 388-9855
Mobile- 432-1182

El Rio Berry Farms
✓ Brian Fukatomi 485-5461

- 6 oil/gas wells on-site.
- 5 of 6 found.
- Abandoned / capped
- 6th well in current cabbage crop.
- Padre & Assc. preparing closure document.

RBF CONSULTING

PHONE LOG

X Incoming Call

Outgoing Call

Job No. 30-100333

Date 7/31/02

Individual Contact Tom Nagel

By Richard Beck

Title

Phone (805) 487-4961 X. 141

Company / Agency Western Farm Service

Project Name SAKIOKA FARMS

Address

Subject of Contact HAZARDOUS MATERIALS and USTS on-site (IF ANY)

Items Discussed

(1) Current tenant / position - N/A.

(2) HAZARDOUS spills / Releases - N/A

(3) Any USTs on-site. - N/A

Role - Completes pest control and applications. All applications (Celery, onions, lettuce).

Action to be Taken None

Route To —

RBF CONSULTING

PHONE LOG

X Incoming Call

Outgoing Call

Job No. 30-100333

Date 7/31/02

Individual Contact Doug Mita

By Richard Beck

Title

Phone (805) 857-1048

Company / Agency Bayview Berry Farms

Project Name Sakioka Farms

Address

Subject of Contact Hazardous Materials and USTS on-site (If Any)

Items Discussed

1. Current tenant / position – —

2. Hazardous spills / Releases – None Known

3. Any USTs on-site. – None Known

Action to be Taken None

Route To —

RBF CONSULTING

PHONE LOG

Job No. 30-100333

Date 7/31/02

___ Incoming Call

X Outgoing Call

Individual Contact BRIAN Benchwick

By Richard Beck

Title

Phone (805) 388-9855

Company / Agency

Project Name SAKIOKA FARMS

Address PACIFICO BERRY FARMS
Tri-CAl. Inc.

Subject of Contact HAZArdous MATerials and USTS on-site (IF ANY)

Items Discussed

(1) Current tenant / position - Recommended current Pesticides.

(2) ~~HAZARDOUS~~ HAZARDOUS spills / Releases - No knowledge. N/A.

(3) Any USTs on-site. - N/A.

Walked field. LAST 3 seasons. Recommends which pesticides to be used on-site. No Furthere information Given.

Action to be Taken None

Route To —

PLANNING ■ DESIGN ■ CONSTRUCTION

Offices located throughout California, Arizona & Nevada ■ www.RBF.com

RBF CONSULTING

FAX COVER SHEET

DATE July 3, 2002 FAX NUMBER (916) 227-7600

TO Ms. Ann Roth COMPANY Dept. of Water Resources

FROM Richard Beck TOTAL PAGES INCLUDING COVER SHEET 5

SUBJECT Wells in Oxnard, CA.

COMMENTS

Ms. Roth - I would like to request a water well search for the attached property. I am not the well owner; however in the past you have given me information within regards to the quantity of wells and their usage on-site. This Phase 1 Assement is currently being prepared for the land owner. Attached please find maps to pin point the property and the typical well-request FORM. I appreciate any information you can forward to me.

Richard Beck.

JOB NAME Sakioka Farms JOB NUMBER 30-100310

PLEASE GIVE COPIES OF THIS TRANSMISSION TO —

SEND RETURN FAX TO:

___ 949.
Comp
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Inform
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Water

RBF CONSULTING

RICHARD BECK
Environmental Analyst

PLANNING ■ DESIGN ■ CONSTRUCTION

14725 Alton Pkwy, Irvine, CA 92618-2027 ■ P.O. Box 57057, Irvine, CA 92619-7057
Direct 949.855.3687 ■ 949.472.3505 ■ Fax 949.837.4122 ■ rbeck@rbf.com

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___ **949.586.6531**
Stormwater Management

___ **949.837.8007**
Marketing
Media Services
Public Works-Transportation

X **949.837.4122**
Environmental Services —
Planning
Urban Design Studio

If there are any questions, or if you do not receive all documents, please call us.

State of California
DEPARTMENT OF WATER RESOURCES
Southern District

FACSIMILE TRANSMISSION COVER SHEET

DATE: 7-12-2 1 PAGES TO FOLLOW

TO: Richard Beck
NAME OF RECIPIENT

ORGANIZATION

9498374122
FAX NUMBER OF RECIPIENT

PHONE NUMBER OF RECIPIENT

FROM: Gary Gilbreath 818-543-4653
NAME OF SENDER PHONE

Groundwater E-mail: garyg@water.ca.gov
SECTION OR UNIT

SUBJECT: your request was sent down
COMMENT: to me from Ann Rath
release form needs to be
filled out entirely,
including T R + SECTION

call if any ?'s

IF ALL PAGES SHOWN ARE NOT RECEIVED, PLEASE CALL:
PUBLIC: 818-543-4600, EXT. 312

SOUTHERN DISTRICT FACSIMILE MACHINE PHONE NUMBER IS:
PUBLIC 818-543-4604

RBF CONSULTING

FAX COVER SHEET

FAXED 7/5/02 RB

DATE July 5, 2002 FAX NUMBER 213-576-6707

TO File Clerk COMPANY RWQCB-4

FROM Richard Beck TOTAL PAGES INCLUDING COVER SHEET 2

SUBJECT File Review Request.

COMMENTS

Please see attached.

RBF CONSULTING

RICHARD BECK
Environmental Analyst

PLANNING : DESIGN : CONSTRUCTION

14725 Alton Pkwy, Irvine, CA 92618-2027 ■ P.O. Box 57057, Irvine, CA 92619-7057
Direct 949.855.3687 ■ 949.472.3505 ■ Fax 949.837.4122 ■ rbeck@rbf.com

JOB NAME Sakioka Farms JOB NUMBER —

PLEASE GIVE COPIES OF THIS TRANSMISSION TO —

SEND RETURN FAX TO:

__ **949.472.8373**
Computer Services
Corporate Management
Information Systems Services
Mapping
Special Services
Structural Engineering
Surveying

__ **949.472.3742**
Business Development
Water Resources

__ **949.454.8576**
Construction Management
Education / Awards
Finance / Administration
Telecommunications

__ **949.472.8122**
Central Files
Land Development

__ **949.586.6531**
Stormwater Management

__ **949.837.8007**
Marketing
Media Services
Public Works-Transportation

X **949.837.4122**
Environmental Services ✓
Planning
Urban Design Studio

If there are any questions, or if you do not receive all documents, please call us.

RBF CONSULTING

July 5, 2002

REGIONAL WATER QUALITY CONTROL BOARD
Attention: Custodian of Records
320 W. Fourth Street, Suite 200
Los Angeles, CA 90013

Subject: Request for Information/File Review Regarding Properties within the City of Oxnard, County of Ventura, State of California

To Whom It May Concern:

This document is within regards to properties located within the City of Oxnard, County of Ventura, California. RBF Consulting is currently conducting a Phase I Environmental Site Assessment for one (1) property (4 parcels) within the City of Oxnard. Per a database report provided by Environmental Data Resources, the following adjacent properties were listed under the LUST and/or CORTESE database:

Property or Owner	Address	Case Number
Long Beach Mortgage	2935 Ventura Boulevard	NA
C.A.B. Enterprises	2927 Ventura Boulevard	C-95171
Gilbert (GIBB) Sawtelle	2701 Ventura Boulevard	C-87098
Power Machinery Center	3450 Camino Avenue	NA
Ace K. Hall	3601 Nyeland Avenue	C-86027
Oxnard Truck Center	2101 E. Ventura Boulevard	C-99006
Fred & Patti Rosenmund	700 Maulhardt	NA

*Note: Where "NA" is indicated, the RWQCB may or may not be the lead regulatory agency.
All properties are located within the City of Oxnard.

I would like to request a search of these addresses within your Region's files. If records are maintained, I would also like to set up a file review for the above-mentioned properties. If there is anyway I can assist you in expediting this search request please let me know. Please do not hesitate to call me at 949-855-3687 with any questions you may have regarding this request.

Sincerely,

Richard Beck

Richard Beck
Environmental Analyst

RBF CONSULTING

FAX COVER SHEET

DATE July

FAX NUMBER 805-654-2480

TO

COMPANY Dept. of Env. Health

FROM Richard Beck

TOTAL PAGES INCLUDING COVER SHEET 12

SUBJECT Records Review Request.

COMMENTS

The Regional Board indicated that the County of Ventura maintains these files. please see attached...

I would like to set up a file Review as soon as possible. Thank you.

Rich.

JOB NAME SAKIOKA FARMS PHASE I

JOB NUMBER —

PLEASE GIVE COPIES OF THIS TRANSMISSION TO —

SEND RETURN FAX TO:

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RBF CONSULTING
RICHARD BECK
Environmental Analyst
PLANNING ■ DESIGN ■ CONSTRUCTION
14725 Alton Pkwy, Irvine, CA 92618-2027 ■ P.O. Box 57057, Irvine, CA 92619-7057
Direct 949.855.3687 ■ 949.472.3505 ■ Fax 949.837.4122 ■ rbeck@rbf.com

___ **949.586.6531**
Stormwater Management
___ **949.837.8007**
Marketing
Media Services
Public Works-Transportation
X **949.837.4122**
Environmental Services
Planning
Urban Design Studio

If there are any questions, or if you do not receive all documents, please call us.

Ventura County Environmental Health Division - 800 S. Victoria Ave., Ventura CA 93009-1730
In Ventura County Only, Dial Toll Free, Monday thru Friday, 8:00 AM-5:00 PM: 800/660-5474,
then enter TELEPHONE: 805/654-2813 Web Site Address: www.ventura.org/env_hlth/env.htm

RECORDS SEARCH REQUEST

[redacted]

INSTRUCTIONS TO APPLICANT:

1. The processing fee is NOT REFUNDABLE.
2. Complete one request form for each site for which you require information.
3. Complete all of the information requested on this page, including File ID #s.
4. If the site address that you require information on is not shown on one of EHD's lists of files, EHD has NO records for that site address. Copies of these lists are available at the public services counter for viewing or to purchase; some lists are available on the EHD web site shown above. The lists are alphabetical by street address.
5. If you are requesting any of the information listed below, THERE IS NO CHARGE FOR VIEWING; you must complete a request form; there may be fees for copies (see below).
   - Business Plan only (no fee for copy)
   - ISDS Plot Plan (no fee for copy) or entire file (fee for copies)
   - Food/Pool Inspection Report (fee for copies)
   - If you are the owner of a site or the "responsible party" (fee for copies)

RECORD SEARCH INFORMATION

2190 RICE ROAD

SITE INFORMATION	Business Name/Property Owner Sakioka FARMS.	
	Street Address N/A (APN 216-0-030-065)	
	City Oxnard	
TYPE OF INFORMATION REQUESTED	☐ Business Plan	File ID #
	☐ Hazardous Waste Producer	File ID #
	☒ Underground Storage Tank - Operating Site	File ID # N/A
	☐ Underground Storage Tank - Closed Site	File ID # D
	☒ Underground Storage Tank - LUFT Cleanup Site	File ID # C N/A
	☐ ISDS ☐ Plot Plan ONLY ☐ Entire File	APN #
	☐ Food/Pool Inspection Report	
	☐ Other	
CHECK ONE	☐ Copy the file(s)	☒ Appointment to view requested

REQUESTOR INFORMATION

Name RICHARD BECK

Company Name RBF Consulting

Street Address 14725 Alton Parkway

City IRvine State CA Zip 92619

Telephone Number (949) 855-3687

SIGNATURE Richard Beck DATE July 8, 2002

5/28/99:sam/filesrch/-reqform.599

DISTRIBUTION: WHITE-Office CANARY-Requestor

Ventura County Environmental Health Division - 800 S. Victoria Ave., Ventura CA 93009-1730
In Ventura County Only, Dial Toll Free, Monday thru Friday, 8:00 AM-5:00 PM: 800/660-5474, then enter TELEPHONE: 805/654-2813 Web Site Address: www.ventura.org/env_hlth/env.htm

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   - ISDS Plot Plan (no fee for copy) or entire file (fee for copies)
   - Food/Pool Inspection Report (fee for copies)
   - If you are the owner of a site or the "responsible party" (fee for copies)

FOR OFFICE USE ONLY

RECORD SEARCH INFORMATION

SITE INFORMATION	Business Name/Property Owner: Powery Machinery Center	
	Street Address: 3450 Camino Avenue	
	City: Oxnard	
TYPE OF INFORMATION REQUESTED	☐ Business Plan	File ID #
	☐ Hazardous Waste Producer	File ID #
	☒ Underground Storage Tank - Operating Site ?	File ID #
	☐ Underground Storage Tank - Closed Site	File ID # D
	☒ Underground Storage Tank - LUFT Cleanup Site	File ID # C N/A
	☐ ISDS ☐ Plot Plan ONLY ☐ Entire File	APN #
	☐ Food/Pool Inspection Report	
	☐ Other	
CHECK ONE	☐ Copy the file(s)	☒ Appointment to view requested

REQUESTOR INFORMATION

Name: Richard Beck

Company Name: RBF Consulting

Street Address: 14725 Alton Parkway

City: Irvine State: CA Zip: 92619

Telephone Number: (949) 855-3687

SIGNATURE: Richard Beck DATE: July 8, 2002

DISTRIBUTION: WHITE-Office CANARY-Requestor

5/28/99:sam/filesrch/-reqform.599

Ventura County Environmental Health Division - 800 S. Victoria Ave., Ventura CA 93009-1730
In Ventura County Only, Dial Toll Free, Monday thru Friday, 8:00 AM-5:00 PM: 800/660-5474,
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   - ISDS Plot Plan (no fee for copy) or entire file (fee for copies)
   - Food/Pool Inspection Report (fee for copies)
   - If you are the owner of a site or the "responsible party" (fee for copies)

[redacted]

RECORD SEARCH INFORMATION

SITE INFORMATION	Business Name/Property Owner: Fred & Patti Rosenmund	
	Street Address: 700 ~~Ata~~ Maulhardt.	
	City: Oxnard	
TYPE OF INFORMATION REQUESTED	☐ Business Plan	File ID #
	☐ Hazardous Waste Producer	File ID #
	☒ Underground Storage Tank - Operating Site ?	File ID #
	☐ Underground Storage Tank - Closed Site	File ID # D
	☒ Underground Storage Tank - LUFT Cleanup Site	File ID # C N/A
	☐ ISDS ☐ Plot Plan ONLY ☐ Entire File	APN #
	☐ Food/Pool Inspection Report	
	☐ Other	
CHECK ONE	☐ Copy the file(s) ☒ Appointment to view requested	

REQUESTOR INFORMATION

Name: RICHARD BECK

Company Name: RBF Consulting

Street Address: 14725 Alton Parkway

City: IRvine State: CA Zip: 92619

Telephone Number: (949) 855-3687

SIGNATURE: Richard Beck DATE: July 8, 2002

DISTRIBUTION: WHITE-Office CANARY-Requestor

5/28/99:sam/filesrch/-reqform.599

Ventura County Environmental Health Division - 800 S. Victoria Ave., Ventura CA 93009-1730
In Ventura County Only, Dial Toll Free, Monday thru Friday, 8:00 AM-5:00 PM: 800/660-5474,
then enter TELEPHONE: 805/654-2813 Web Site Address: www.ventura.org/env_hlth/env.htm

RECORDS SEARCH REQUEST

INSTRUCTIONS TO APPLICANT:

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   - Business Plan only (no fee for copy)
   - ISDS Plot Plan (no fee for copy) or entire file (fee for copies)
   - Food/Pool Inspection Report (fee for copies)
   - If you are the owner of a site or the "responsible party" (fee for copies)

[redacted]

RECORD SEARCH INFORMATION

SITE INFORMATION	Business Name/Property Owner: Oxnard Truck Center	
	Street Address: 2101 E. Ventura Boulevard	
	City: Oxnard	
TYPE OF INFORMATION REQUESTED	☐ Business Plan	File ID #
	☐ Hazardous Waste Producer	File ID #
	☒ Underground Storage Tank - Operating Site ?	File ID #
	☐ Underground Storage Tank - Closed Site	File ID # D
	☒ Underground Storage Tank - LUFT Cleanup Site	File ID # C C-99006
	☐ ISDS ☐ Plot Plan ONLY ☐ Entire File	APN #
	☐ Food/Pool Inspection Report	
	☐ Other	
CHECK ONE	☐ Copy the file(s)	☒ Appointment to view requested

REQUESTOR INFORMATION

Name: RICHARD BECK

Company Name: RBF Consulting

Street Address: 14725 Alton Parkway

City: IRvine State: CA Zip: 92619

Telephone Number: (949) 855-3687

SIGNATURE: Richard Beck DATE: July 8, 2002

DISTRIBUTION: WHITE-Office CANARY-Requestor

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   - Food/Pool Inspection Report (fee for copies)
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[redacted]

RECORD SEARCH INFORMATION

SITE INFORMATION	Business Name/Property Owner: C.A.B. Enterprises	
	Street Address: 2927 Ventura Boulevard	
	City: Oxnard	
TYPE OF INFORMATION REQUESTED	☐ Business Plan	File ID #
	☐ Hazardous Waste Producer	File ID #
	☒ Underground Storage Tank - Operating Site ?	File ID #
	☐ Underground Storage Tank - Closed Site	File ID # D
	☒ Underground Storage Tank - LUFT Cleanup Site	File ID # C C-95171
	☐ ISDS ☐ Plot Plan ONLY ☐ Entire File	APN #
	☐ Food/Pool Inspection Report	
	☐ Other	
CHECK ONE	☐ Copy the file(s) ☒ Appointment to view requested	

REQUESTOR INFORMATION

Name: Richard Beck

Company Name: RBF Consulting

Street Address: 14725 Alton Parkway

City: Irvine State: CA Zip: 92619

Telephone Number: (949) 855-3687

SIGNATURE: Richard Beck DATE: July 8, 2002

DISTRIBUTION: WHITE-Office CANARY-Requestor 5/28/99:sam/filesrch/-reqform.599

Ventura County Environmental Health Division - 800 S. Victoria Ave., Ventura CA 93009-1730
In Ventura County Only, Dial Toll Free, Monday thru Friday, 8:00 AM-5:00 PM: 800/660-5474,
then enter TELEPHONE: 805/654-2813 Web Site Address: www.ventura.org/env_hlth/env.htm

RECORDS SEARCH REQUEST

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   - Food/Pool Inspection Report (fee for copies)
   - If you are the owner of a site or the "responsible party" (fee for copies)

FOR OFFICE USE ONLY
[illegible]

RECORD SEARCH INFORMATION

SITE INFORMATION	Business Name/Property Owner: Long Beach Mortgage	
	Street Address: 2935 Ventura Boulevard	
	City: Oxnard	
TYPE OF INFORMATION REQUESTED	☐ Business Plan	File ID #
	☐ Hazardous Waste Producer	File ID #
	☒ Underground Storage Tank - Operating Site	File ID # ?
	☐ Underground Storage Tank - Closed Site	File ID # D
	☒ Underground Storage Tank - LUFT Cleanup Site	File ID # C N/A.
	☐ ISDS ☐ Plot Plan ONLY ☐ Entire File	APN #
	☐ Food/Pool Inspection Report	
	☐ Other	
CHECK ONE	☐ Copy the file(s) ☒ Appointment to view requested	

REQUESTOR INFORMATION

Name: RICHARD BECK

Company Name: RBF Consulting

Street Address: 14725 Alton Parkway

City: IRvine State: CA Zip: 92619

Telephone Number: (949) 855-3687

SIGNATURE: Richard Beck DATE: July 8, 2002

Ventura County Environmental Health Division - 800 S. Victoria Ave., Ventura CA 93009-1730
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   - If you are the owner of a site or the "responsible party" (fee for copies)

[redacted]

RECORD SEARCH INFORMATION

SITE INFORMATION	Business Name/Property Owner Sakioka Farms.	
	Street Address N/A (APN 216-0-030-075)	
	City Oxnard	
TYPE OF INFORMATION REQUESTED	☐ Business Plan	File ID #
	☐ Hazardous Waste Producer	File ID #
	☒ Underground Storage Tank - Operating Site	File ID # N/A
	☐ Underground Storage Tank - Closed Site	File ID # D
	☒ Underground Storage Tank - LUFT Cleanup Site	File ID # C N/A
	☐ ISDS ☐ Plot Plan ONLY ☐ Entire File	APN #
	☐ Food/Pool Inspection Report	
	☐ Other	
CHECK ONE	☐ Copy the file(s) ☒ Appointment to view requested	

REQUESTOR INFORMATION

Name Richard Beck

Company Name RBF Consulting

Street Address 14725 Alton Parkway

City Irvine State CA Zip 92619

Telephone Number (949) 855-3687

SIGNATURE Richard Beck DATE July 8, 2002

DISTRIBUTION: WHITE-Office CANARY-Requestor 5/28/99:sam/filesrch/-reqform.599

ent By: VENTURA CO ENV HLTH; 805 654 2480;

Ventura County Environmental Health Division - 800 S. Victoria Ave., Ventura CA 93009-1730
In Ventura County Only, Dial Toll Free, Monday thru Friday, 8:00 AM-5:00 PM: 800/660-5474,
then enter TELEPHONE: 805/654-2813 Web Site Address: www.ventura.org/env_hlth/env.htm

RECORDS SEARCH REQUEST

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   - If you are the owner of a site or the "responsible party" (fee for copies)

RECORD SEARCH INFORMATION

SITE INFORMATION	Business Name/Property Owner: Sakioka Farms.	
	Street Address: N/A (APN 216-0-030-085)	
	City: Oxnard	
TYPE OF INFORMATION REQUESTED	☐ Business Plan	File ID #
	☐ Hazardous Waste Producer	File ID #
	☒ Underground Storage Tank - Operating Site	File ID # N/A
	☐ Underground Storage Tank - Closed Site	File ID # D
	☒ Underground Storage Tank - LUFT Cleanup Site	File ID # C N/A
	☐ ISDS ☐ Plot Plan ONLY ☐ Entire File	APN #
	☐ Food/Pool Inspection Report	
	☐ Other	
CHECK ONE	☐ Copy the file(s)	☒ Appointment to view requested

REQUESTOR INFORMATION

Name: Richard Beck

Company Name: RBF Consulting

Street Address: 14725 Alton Parkway

City: Irvine State: CA Zip: 92619

Telephone Number: (949) 855-3687

SIGNATURE: Richard Beck DATE: July 8, 2002

DISTRIBUTION: WHITE-Office CANARY-Requestor

5/28/99:sam/filesrch/-reqform.599

Ventura County Environmental Health Division - 800 S. Victoria Ave., Ventura CA 93009-1730
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RECORDS SEARCH REQUEST

INSTRUCTIONS TO APPLICANT:

[redacted]

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3. Complete all of the information requested on this page, including File ID #s.
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   - If you are the owner of a site or the "responsible party" (fee for copies)

RECORD SEARCH INFORMATION

SITE INFORMATION	Business Name/Property Owner Sakioka Farms.	
	Street Address N/A (APN 216-0-030-105)	
	City Oxnard	
TYPE OF INFORMATION REQUESTED	☐ Business Plan	File ID #
	☐ Hazardous Waste Producer	File ID #
	☒ Underground Storage Tank - Operating Site	File ID # N/A
	☐ Underground Storage Tank - Closed Site	File ID # D
	☒ Underground Storage Tank - LUFT Cleanup Site	File ID # C N/A
	☐ ISDS ☐ Plot Plan ONLY ☐ Entire File	APN #
	☐ Food/Pool Inspection Report	
	☐ Other	
CHECK ONE	☐ Copy the file(s)	☒ Appointment to view requested

REQUESTOR INFORMATION

Name Richard Beck

Company Name RBF Consulting

Street Address 14725 Alton Parkway

City Irvine State CA Zip 92619

Telephone Number (949) 855-3687

SIGNATURE Richard Beck DATE July 8, 2002

5/28/99:sam/filesrch/-reqform.599

DISTRIBUTION: WHITE-Office CANARY-Requestor

RESOURCE MANAGEMENT AGENCY

county of ventura

Environmental Health Division
Robert Gallagher
Director

July 10,2002

RICHARD BECK
RBF CONSULTING
14725 ALTON PARKWAY
IRVINE, CA 92619

FILE SEARCH REQUEST REGARDING: ID: 10330
POWER MACHINERY CENTER
5450 CAMINO AVE.
OXNARD

For all sites

Your request to view the above-named file is approved. To schedule an appointment, contact Marilou Benitez at the Environmental Health Division at (805) 654-2813.

EHD now has some of its records stored electronically. Therefore, when you visit EHD to view site information, some or all of it may be viewed electronically. To receive a copy of this information, you may either bring your own 20 pound, 8 1/2 X 11" paper, or purchase paper (at 10 cents per page) from EHD. In the future, we hope to provide site information on The Internet.

If we do not receive a response from you by August 9,2002, the request will be cancelled.

Marilou Benitez
Records Search Coordinator
Environmental Health Division

RESOURCE MANAGEMENT AGENCY

county of ventura

Environmental Health Division
Robert Gallagher
Director

July 10,2002

RICHARD BECK
RBF CONSULTING
14725 ALTON PARKWAY
IRVINE, CA 92619

FILE SEARCH REQUEST REGARDING:

ID: 10337
SAKIOKA FARMS
2190 RICE AVE.
OXNARD

Your request to receive a copy of the above-named file cannot be completed because our records indicate that we have no file under the above-referenced address.

Marilou Benitez
Records Search Coordinator
Environmental Health Division

RESOURCE MANAGEMENT AGENCY

county of ventura

Environmental Health Division
Robert Gallagher
Director

July 10,2002

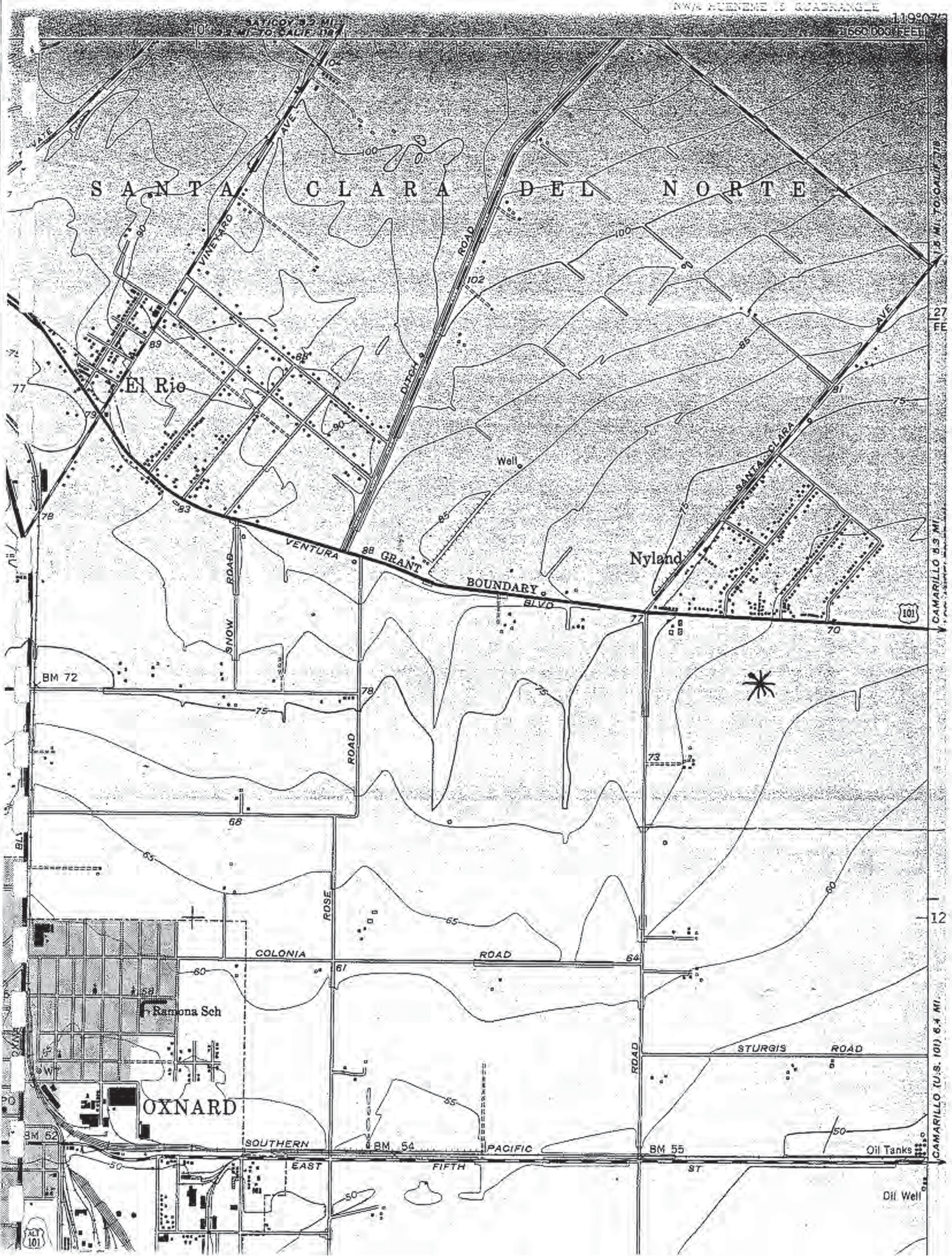
RICHARD BECK
RBF CONSULTING
14725 ALTON PARKWAY
IRVINE, CA 92619

FILE SEARCH REQUEST REGARDING:

ID: 10340
SAKIOKA FARMS
APRN 216-0-030-105
OXNARD

Your request to receive a copy of the above-named file cannot be completed because our records indicate that we have no file under the above-referenced address.

Marilou Benitez
Records Search Coordinator
Environmental Health Division


SATICOY 3.2 MI.
119°07'
660 000 FEET
SANTA CLARA DEL NORTE
El Rio
Nyland
OXNARD
Ramona Sch
VINEYARD AVE
DITCH ROAD
VENTURA BOUNDARY BLVD
GRANT
SNOW ROAD
ROSE ROAD
COLONIA ROAD
STURGIS ROAD
SANTA CLARA AVE
SOUTHERN PACIFIC
EAST FIFTH ST
Well
BM 72
BM 52
BM 54
BM 55
Oil Tanks
Oil Well
CAMARILLO 5.3 MI.
CAMARILLO (U.S. 101) 6.4 MI.
101

Inquiry Number: 809377.5 ↑N
TP Quad [✓] Adj Quad []

Quad Oxnard
Minute Series [✓] 7.5 [] 15 [] 30 [] Other
Year 1951
[] Photorevised [] Inspected from
Scale [✓] 1:24,000 [] 1:62,500
[] 1:125,000 [] Other

SANTA CLARA DEL NORTE
El Rio
Nyland
Del Valle Sch
Rio Lindo Sch
Ramona Sch
OXNARD
VINEYARD AVE
ROAD
GRANT BOUNDARY
FREEWAY
SNOW ROAD
ROSE ROAD
COLONIA ROAD
STURGIS ROAD
SOUTHERN PACIFIC
EAST FIFTH ST
SANTA CLARA AVE
VENTURA
BM 54
BM 55
BM 44
Oil Well
1.5 MI. TO CALIF. 118
270 00 FEET
3790
3788
3787
12'30"
CAMARILLO 5.3 MI.
LOS ANGELES 58 MI.
CAMARILLO (U.S. 101) 6.4 MI.
101
34
100
85
75
69
65
60
50

Inquiry Number: 809377.5
TP Quad ☑[] Adj Quad [] ↑N

Quad Oxnard
Minute Series [☑] 7.5 [] 15 [] 30 [] 30x60
Year 1967 []Provisional Edition []Revised
[☑]Photorevised []Inspected from 1949
[☑] 1:24,000 [] 1:25,000 [] 1:31,680 [] 1:50,000
[] 1:62,500 [] 1:100,000 [] 1:125,000

The EDR-Aerial Photography Print Service

Sakioka Farms
Rice Ave/Del Norte Boulevard
Oxnard, CA 93030

July 9, 2002

Inquiry Number: 809377-6

Environmental Data Resources, Inc.
an edr company

The Source For Environmental Risk Management Data

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802

Environmental Data Resources, Inc.

Aerial Photography Print Service

Environmental Data Resources, Inc.'s (EDR) Aerial Photography Print Service is a screening tool designed to assist professionals in evaluating potential liability on a target property resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of *reasonably ascertainable standard historical sources. Reasonably ascertainable means information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.*

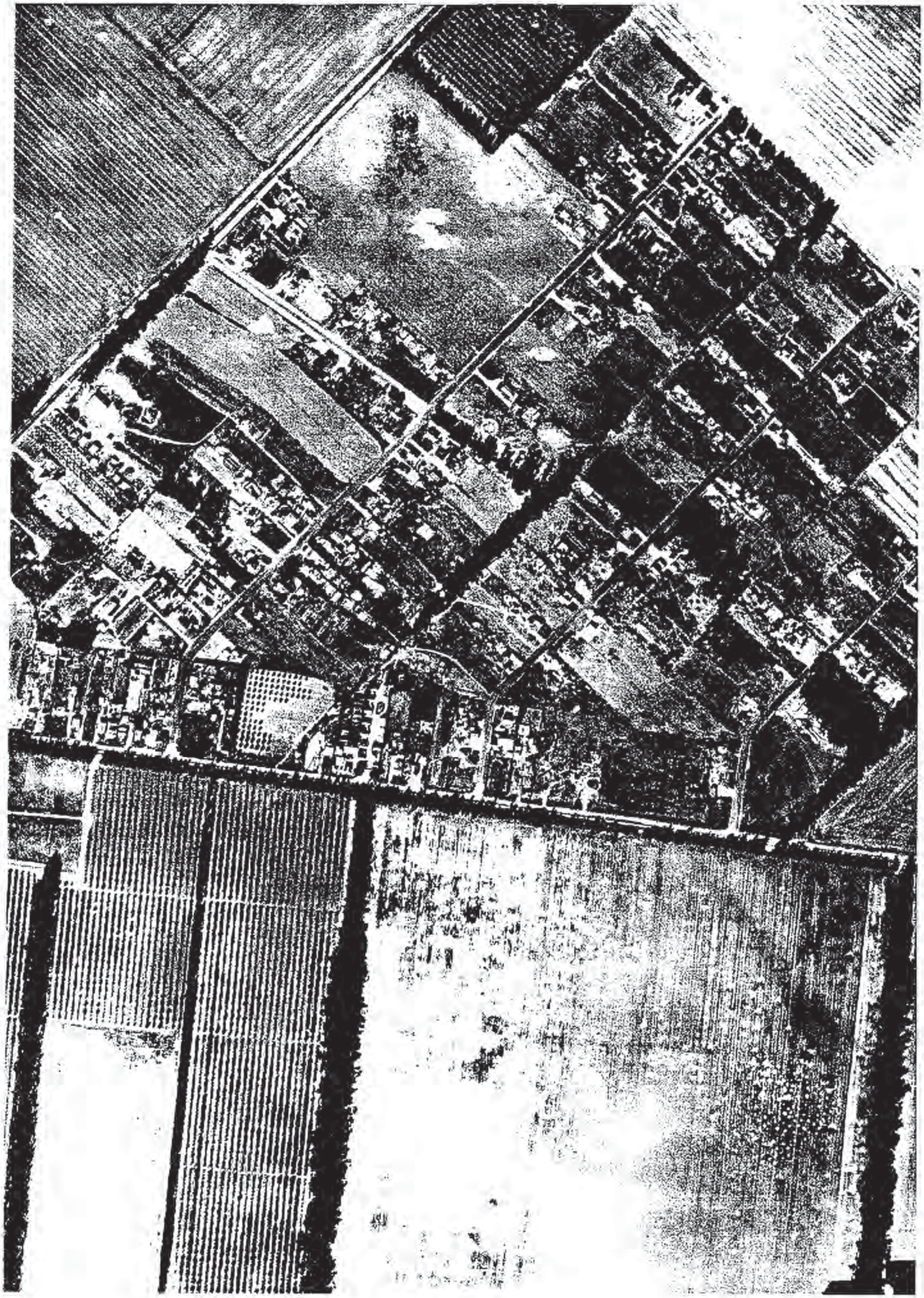
To meet the prior use requirements of ASTM E 1527-00, Section 7.3.4, the following *standard historical sources* may be used: aerial photographs, fire insurance maps, property tax files, land title records (although these cannot be the sole historical source consulted), topographic maps, city directories, building department records, or zoning/land use records. ASTM E 1527-00 requires *"All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful.* "(ASTM E 1527-00, Section 7.3.4, page 12.

Aerial Photographs

Aerial photographs are a valuable historical resource for documenting past land use and can be particularly helpful when other historical sources (such as city directories or fire insurance maps) are not reasonably ascertainable. The EDR Aerial Photograph Print Service includes a search of aerial photograph collections flown by public and private agencies for the state of California. EDR's professional field-based researchers provide digitally reproduced historical aerial photographs at approximately ten year intervals.

INQUIRY #: 809377.6
YEAR: 1938
FLYER: Army
SCALE: 1"=555'

N



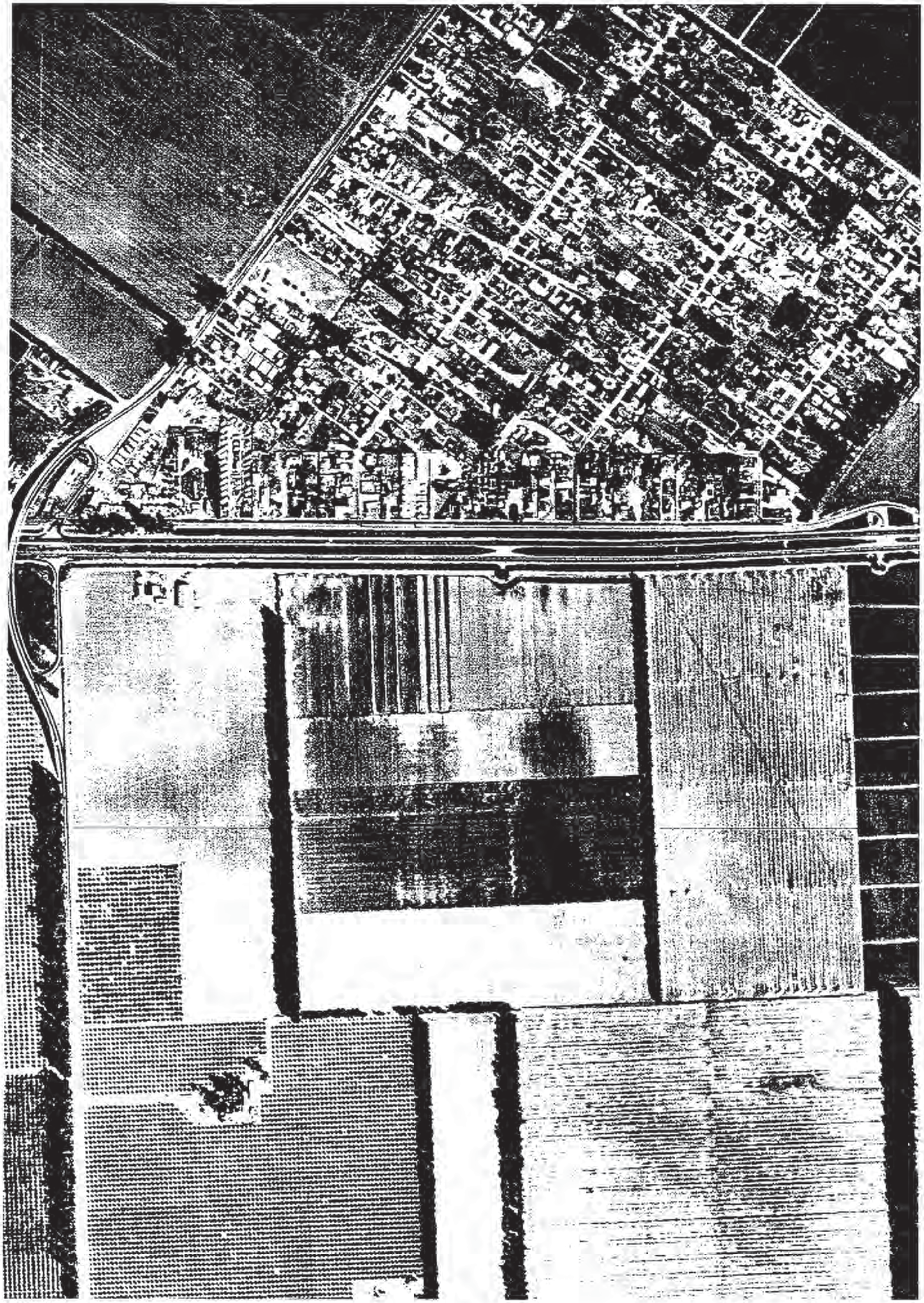
INQUIRY # 809397.6

YEAR: 1945

FLYER: FAIRCHILD

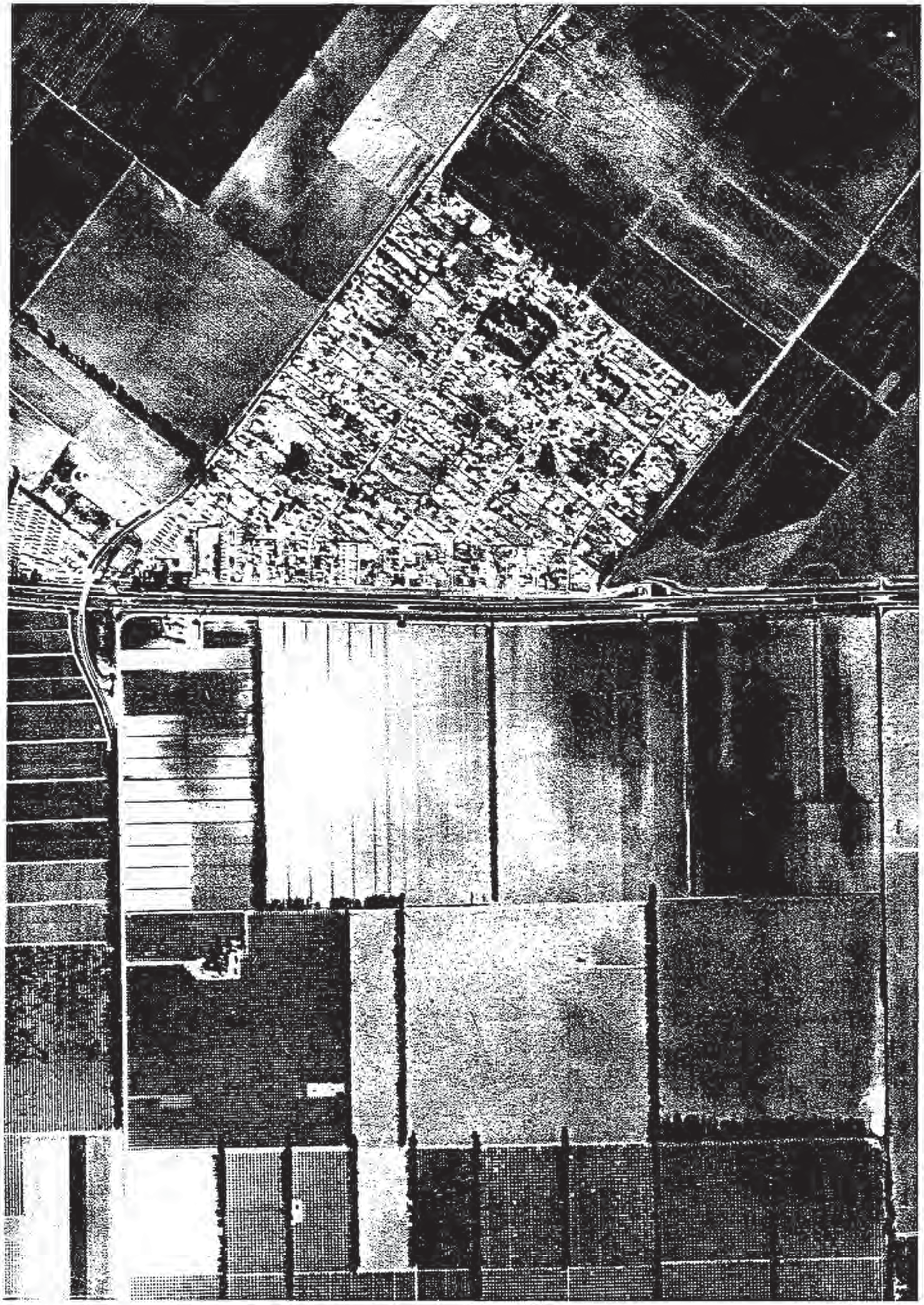
SCALE: 1" = 400'

N



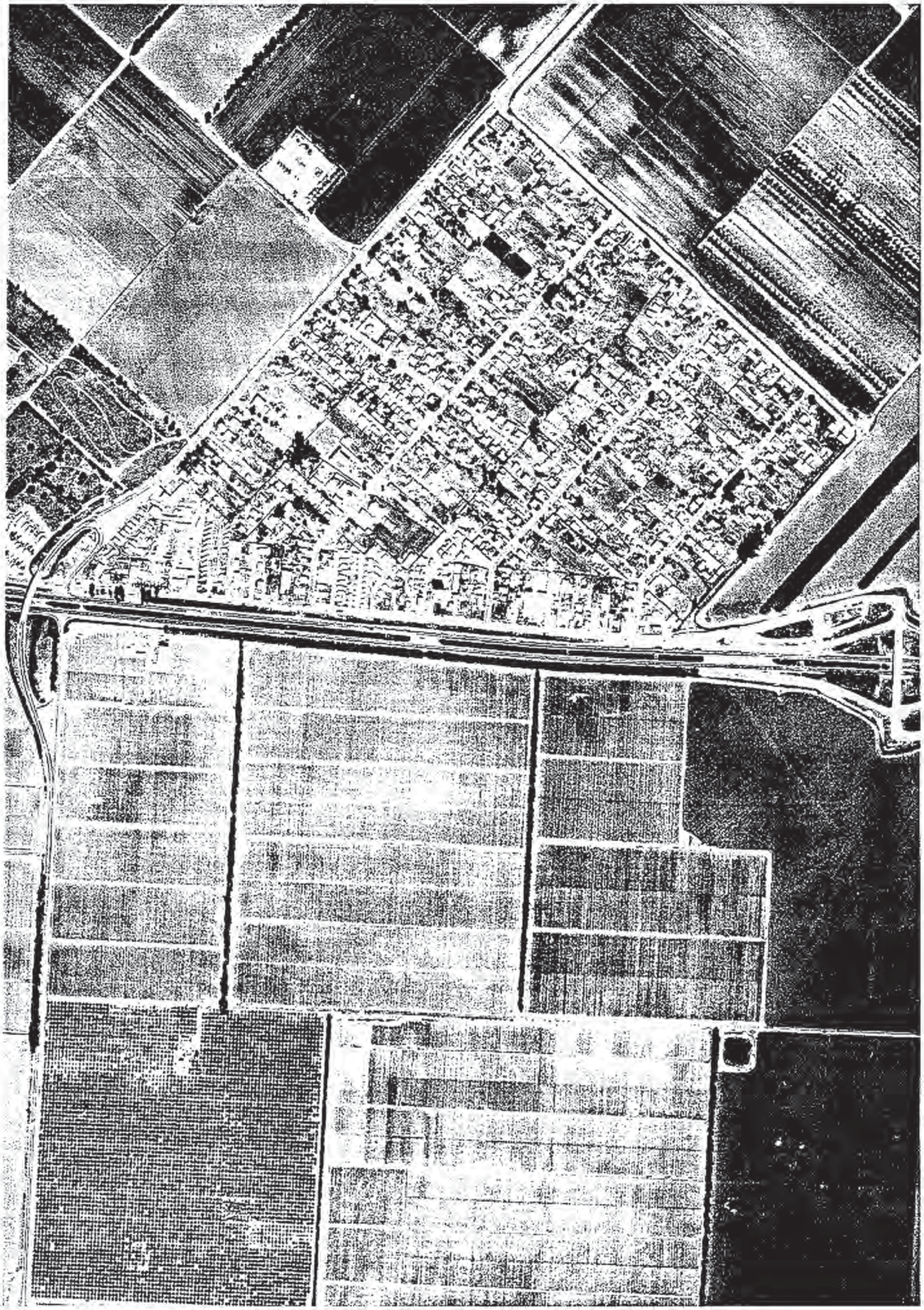
INQUIRY # 809377.6
YEAR: 1959
FLYER: ROBINSON
SCALE: 1" = 555'

N



INQUIRY # 809377.6
YEAR: 1966
FLYER: MARK HURD
SCALE: 1" = 833'

N



Inquiry 5093777.6
Year: 1977
Flyer: Teledyne
Scale: 1"=666'

N

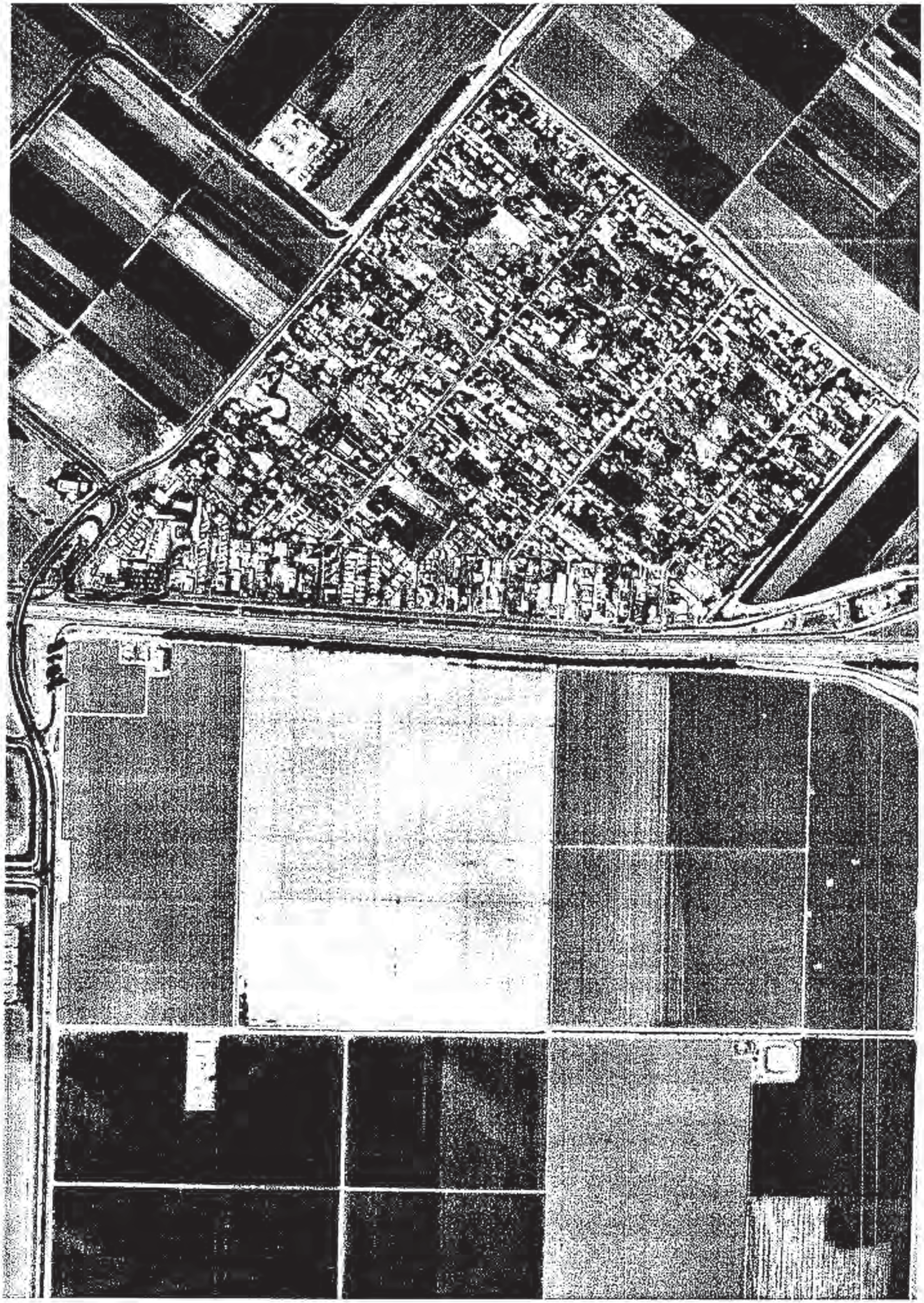
INQUIRY # 8093772

YEAR: 1989

FLYER: USGS

SCALE: 1" = 666'

N



Inquiry # 8093776
Year: 1994
Flyer: USGS
Scale: 1"=666'

N

C. Qualifications of Environmental Professionals

QUALIFICATIONS AND EXPERIENCE

RBF Consulting, established in 1944, has over 55 years of experience in providing comprehensive land development services. Some, but not all of the services RBF Consulting provides includes:

- Construction Management
- Entitlement/Governmental Processing
- Environmental Services (CEQA/NEPA documents, permitting)
- Feasibility Studies/Due Diligence Reports
- Infrastructure Planning and Design (circulation, water, wastewater, flood control, dry utilities)
- Land Planning (Site Plans, Landscape Architecture, Specific Plans, Master Plans)
- Media Services (video, newsletters, presentation/marketing materials)
- ***Phase I Environmental Site Assessments***
- Site Engineering (Grading, Structures)
- Surveying, Mapping and Aerial Photogrammetry

FOCUS ON: **Phase I Environmental Site Assessments (ESAs).** Phase I ESA's prepared by RBF Consulting reflect the most current interpretations of industry standards which are the American Society for Testing & Materials (ASTM) standards for commercial real estate transactions (E1527-00 and E1528-00). The comprehensive in-house capabilities and professional experience in completing a wide range of projects allows RBF to effectively and efficiently complete Phase I Environmental Site Assessments for any type of property.

RBF REPRESENTATIVE PROJECTS

RBF Consulting's staff is uniquely qualified to effectively manage complex projects. RBF Consulting has prepared Phase I ESAs on vacant, residential, commercial, industrial and federal properties, for a wide range of clients. Our clients include, but are not limited to, the following:

- Avanti Investment Advisors (multiple sites)
- Bardeen Investment Company
- California Department of Transportation (multiple sites)
- City of Bell Gardens (multiple sites)
- City of Lake Elsinore
- City of Lynwood (multiple sites)
- City of Murrietta (multiple sites)
- City of Palm Desert
- City of Rancho Mirage
- City of Temecula
- City of Watsonville
- Community Southwest
- Kemper Real Estate
- Kredit Toronto Corporation (multiple sites)
- Lear Enterprises (multiple sites)
- Midland Properties (multiple sites)

KEY PERSONNEL

Projects are overseen by Mr. Bruce R. Grove Jr., Registered Environmental Assessor/Certified Environmental Inspector (REA/CEI) shall provide the quality assurance/quality control oversight of each Phase I ESA prepared. Document research and preparation will be provided by Mr. Richard Beck and Mr. William T. Rice II.

Bruce R. Grove Jr., REA #06865, CEI #14551
Senior Project Manager/Environmental Assessor-QA/QC, Environmental Services

Mr. Grove graduated from California State University, Chico, with a degree in Geography and Planning. Mr. Grove's professional environmental experience includes the management, review, and preparation of Phase I Environmental Site Assessments (ESAs), Initial Site Assessments (ISAs), and Environmental Baseline Surveys (EBSs) consistent with the American Society of Testing & Materials (ASTM) Standards for sites located throughout California, Nevada, and Arizona. In the past five years Mr. Grove has been involved in the preparation or review of well over 300 assessments. In addition Mr. Grove also serves as Field Analyst for several projects requiring conceptual analysis of flood control issues, including the assessment of existing wetland/habitat areas, opportunities for wetland habitat enhancement, and permit/regulatory services including acquisition of permits from the ACOE (404), CDFG (Streambed Alteration Agreements), and the State Water Quality Control Board (NPDES Dewatering, NPDES Stormwater Runoff, and Water Quality Certification).

Richard Beck
Project Coordinator, Environmental Services

Mr. Beck assists in the preparation of environmental and planning studies for public and private sector clients. As an Environmental Analyst at RBF, Mr. Beck has been involved with 404/401/1600 permit processing, wetland delineation, field studies, permitting in accordance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), and Phase I Environmental Site Assessments. In the past two years Mr. Beck has personally evaluated over fifty (50) real properties in the southern California region.

William T. Rice, II
Environmental Analyst, Environmental Services

Mr. Rice graduated from California State University, Fullerton with both a bachelors and maters degrees in Geography with concentration in urban planning and environmental analysis. Mr. Rice's profession experience includes roles as Project Manager, Environmental Scientist and Environmental Analyst. Mr. Rice has researched and prepared numerous Phase I and Phase II Environmental Site Assessments; air, noise, water, and soil technical studies; lead characterization reports, asbestos characterization reports; geotechnical reports; and environmental impact reports. Mr. Rice's real property assessment experience includes projects ranging from large tracts of vacant undeveloped land and residential buildings, to factories, dry cleaning operations and superfund sites. Mr. Rice is certified in asbestos inspection and OSHA Hazardous Waste and Emergency Response Operations.

Appendix H
Traffic Study

City of Oxnard

SAKIOKA FARMS SPECIFIC PLAN

EIR Traffic Study

February 2010

AUSTIN-FOUST ASSOCIATES, INC.

SAKIOKA FARMS
EIR TRAFFIC STUDY

Prepared by:

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1.0 INTRODUCTION

This report presents the results of the environmental impact report traffic study for the Sakioka Farms Specific Plan Business Park development located within the City of Oxnard in the northeast area.

1.1 PROJECT DESCRIPTION

The Sakioka Farms site covers approximately 430 acres located in the northeastern portion of the City of Oxnard (as shown in Figure 1-1). A total of 8,500,000 square feet (sf) of overall development activities is anticipated; 5,500,000 square feet of industrial uses and 2,900,000 square feet of business and research, that also includes office uses. Included in this total is also 100,000 sf of commercial use, with the intent of providing services to employees within the Sakioka development for daily needs, while on breaks, and during lunch periods. Because of the large size and scale of the development, construction is will take place over a 20-year time frame in four phases.

1.2 STUDY AREA

The study area includes the roadways and intersections near to the project site where project generated traffic could cause a significant impact and are consistent with the requirements of the County's Traffic Impact Analysis (TIA) guidelines and the Circulation Element of the City of Oxnard General Plan.

1.3 METHODOLOGY

The traffic analysis evaluates the proposed project for both existing-plus-project and year 2030 time frames. The following approach methodology was used to conduct this traffic analysis:

1.3.1 Data Collection

Current turning movement traffic counts and average daily traffic counts were obtained in late 2007 and mid 2008.

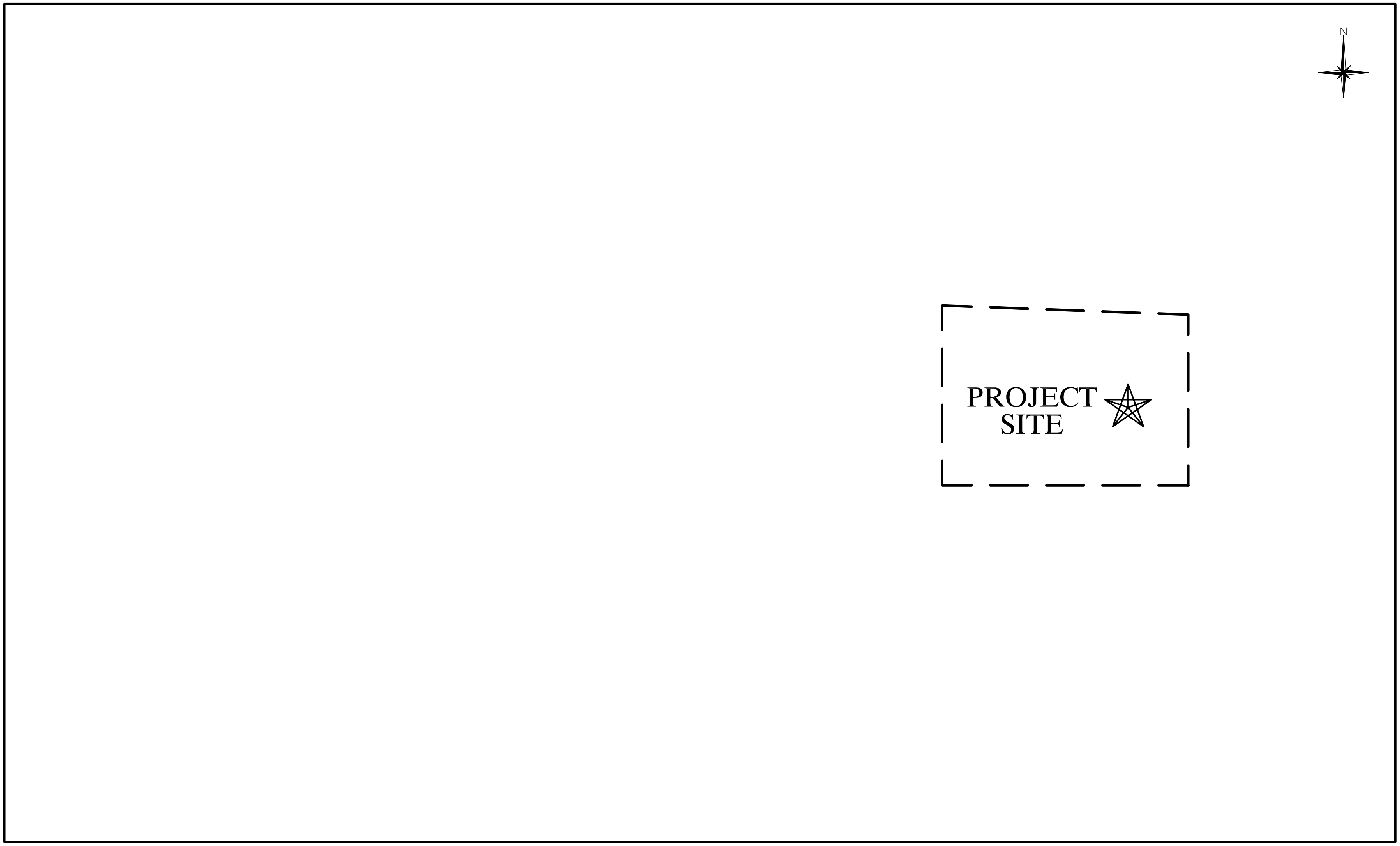


Figure 1-1

LOCATION MAP

1.3.2 Analysis of Existing Conditions

An intersection analysis was conducted for the study area intersections based on AM and PM peak hour traffic volumes and the existing intersection geometrics. Existing conditions were evaluated using the ICU analysis methodology. Also, HCM methodology is included for analysis of project-area intersections that provide access to any State Routes (Highway 101 on/off ramps, etc.) and for unsignalized intersections.

1.3.3 Project Traffic

Trip generation for the project was calculated using Oxnard Traffic Model (OTM) trip generation rates. Project traffic was assigned to the local street system based on the trip distribution from modeled select zone volumes from the OTM. Project traffic volumes were then added to existing traffic volumes to obtain existing-plus-project traffic volumes.

1.3.4 Analysis of 2030 Conditions

Traffic volumes for 2030 were derived from the OTM. The future intersection lane geometrics for study intersections were utilized for this analysis. Two different 2030 scenarios were analyzed, the current 2030 OTM and the 2030 OTM without Sakioka Farms. The same intersection capacity utilization/Highway Capacity Manual (ICU/HCM) analyses methodologies were applied to determine intersection operational conditions for the future AM and PM peak hour scenarios.

1.3.5 Project Phasing & Roadway Improvements

For the future year 2030 lane configurations, some project area intersections will not require improvements over the existing lanes. For the locations that do, an impact analysis based on the project development phasing was conducted to determine a timeline for when future City roadway improvements will be required.

1.4 PERFORMANCE CRITERIA

The ICU and HCM (see Reference 1 at the end of this chapter) methodologies, consistent with the City's criteria and the County's Congestion Management Program (CMP) (see Reference 2 at the end of this chapter), were used to determine intersection operational levels. The ICU/HCM worksheets referenced throughout this report are contained in the Appendix.

According to the "Guidelines for CMP Traffic Impact Analysis Reports in Ventura County" and the City of Oxnard criteria, level of service C is considered the worst acceptable level of service (LOS) for an intersection in Oxnard and LOS E is the minimum county standard. Traffic flow quality for each LOS is described in Table A-1 in the Appendix.

1.5 DEFINITIONS

Certain terms used throughout this report are defined below to clarify their intended meaning:

ADT	Average Daily Traffic. Generally used to measure the total two-directional traffic volumes passing a given point on a roadway.
CMP	Congestion Management Program. A state mandated program administered by the Los Angeles County Metropolitan Transportation Authority (MTA) that provides a mechanism for coordinating land use and development decisions.
LOS	Level of Service. A scale used to evaluate circulation system performance.
Peak Hour	This refers to the hour during the AM peak period (typically 7 AM - 9 AM) or the PM peak period (typically 3 PM - 6 PM) in which the greatest number of vehicle trips are generated by a given land use or are traveling on a given roadway.
Tripend	A trip generation measure which represents the total trips entering and leaving a location.
V/C	Volume to Capacity Ratio. This is typically used to describe the percentage of capacity utilized by existing or projected traffic on a segment of an arterial or intersection.
VPH	Vehicles Per Hour. Used for roadway volumes (counts or forecasts) and trip generation estimates. Measures the number of vehicles in a one-hour period, typically the AM or PM peak hour.

1.6 REFERENCES

1. Highway Capacity Manual 2000, Transportation Research Board, National Research Council, Washington, D.C. 2000.

2. “Congestion Management Program for Ventura County,” Ventura County Transportation Commission, March 4, 2005.

2.0 TRANSPORTATION SETTING

This chapter describes the transportation setting for the traffic analysis. Existing conditions are first discussed, followed by a level of service (LOS) analysis.

2.1 EXISTING CONDITIONS

The following section describes existing traffic conditions in the study area. It includes a description (from Oxnard's General Plan) of the study area roadway system, existing traffic volumes and corresponding levels of service as defined by the performance criteria outlined in the previous chapter.

2.1.1 Existing Roadway System

Bard Road: This roadway presently serves as a secondary arterial from J Street to Pleasant Valley Road. Bard Road provides east-west access to the City's south-central and southeast neighborhoods, and also serves as a route from the City of Port Hueneme and the Navy's Construction Battalion Center to Route 1.

Channel Islands Boulevard: This is a four-lane east-west thoroughfare that provides the principal access to the Channel Islands Harbor and southwest residential areas. Channel Islands Boulevard presently functions as a primary arterial from Harbor Boulevard to Saviers Road, and as a secondary arterial from Saviers Road east to Rice Avenue.

Del Norte Boulevard: This roadway, completed in 1988, provides access to Route 101 from the Northeast Industrial Area. Del Norte Boulevard functions as a secondary arterial from Route 101 to Sturgis Road, and as a local roadway from Sturgis Road south to Fifth Street (State Route 34).

Fifth Street: This thoroughfare is the principal east-west street serving the Central Business District of the City and the mid-City region on both the east and west sides of Oxnard. It is currently designated State Route 34 east of Oxnard Boulevard. Fifth Street functions as a secondary arterial except for the segments from Victoria Avenue to H Street and Oxnard Boulevard to Rose Avenue, which presently function as primary arterials.

Gonzales Road: This road is a main east-west thoroughfare that serves the central and north-central portions of the City of Oxnard. This roadway presently extends from Harbor Boulevard to Rice Avenue. Gonzales Road serves as a primary arterial over its length except from Victoria Avenue to Harbor Boulevard, where it functions as a local arterial. Primary arterials have a recommended right-of-way width of 120-feet. This can be larger based on landscaping requirements of the specific plan.

Harbor Boulevard: This Street follows the shoreline extending from the City of Ventura north of the Santa Clara River at the north and terminating into Ocean Drive, providing accessibility to the beachfront area. Harbor Boulevard is designated as a scenic drive. It functions as a local arterial north of Fifth Street and as a secondary arterial south of Fifth Street.

Hueneme Road: Hueneme Road extends easterly and intersects with Rice Avenue. In addition to serving as a primary arterial west of Saviers Road, this street serves as the main east-west access route to the Port of Hueneme, the City of Port Hueneme and the Ormond Beach area.

Oxnard Boulevard: This street is one of the principal entrances to Oxnard. It is also the principal north-south access to the Central Area, and continues southerly through the "Five Points" intersection to southeast commercial and residential areas. Although its development as a commercial strip is a handicap, its location in the center of the City has led to its functioning as a primary arterial. Oxnard Boulevard is currently designated as Route 1from the 101 Freeway south and the State is responsible for operations and maintenance. North of the 101 Ventura Freeway it is a City street that terminates as a collector street in the River Park residential development.

Patterson Road: This local arterial, which has a gap at the Oxnard Airport, provides access to residential neighborhoods in the northwest and southwest areas of Oxnard. In addition, Patterson Road provides access to the Oxnard Airport, the City of Port Hueneme and the U.S. Navy Construction Battalion Center.

Pleasant Valley Road: This is a four-lane east-west primary arterial which is one of the major distributors of traffic to the City of Port Hueneme and to the U.S. Navy Construction Battalion Center. It also serves as an access route to the commercial Port of Hueneme. To the east of State Route 1, Pleasant Valley Road provides access to the City of Camarillo.

Rice Avenue/Santa Clara Avenue: This street provides access to the Nyeland Acres Community, the Northeast Industrial Area and the southeast residential areas. Santa Clara Avenue functions as a local arterial while Rice Avenue presently functions as a primary arterial. Rice Avenue provides an alternative bypass route to Oxnard Boulevard for through trips.

Rose Avenue: This street is the first north-south thoroughfare east of the Union Pacific Railroad. North of Route 101 it serves the El Rio Community. South of Route 101, it serves the western portion of the Northeast Industrial Area, and the residential area south of the freeway and east of Oxnard Boulevard. As a secondary arterial, Rose Avenue also provides access to the residential area south of Fifth Street and east of the Ventura County Railroad, to the Central Industrial Area, and to the Ormond Beach area.

Saviers Road: Beginning at Hueneme Road, this primarily four-lane north-south arterial provides important access from south Oxnard, Port Hueneme and the Ormond Beach area to downtown Oxnard and Route 101. It connects to Oxnard Boulevard and Wooley Road at the "Five Points" intersection.

Ventura Road: This four to six-lane north-south primary arterial provides access to the west side of the City. To the south, the road serves the City of Port Hueneme, the U.S. Navy Construction Battalion Center and to a lesser degree the current Hueneme Road industrial area. Ventura Road also extends north of Vineyard Avenue, and terminates in the Oxnard Town Center area.

Vineyard Avenue: Vineyard Avenue acts as the important connection between Route 101 and central Oxnard via Oxnard Boulevard. Between Oxnard Boulevard and the Route 101 interchange, Vineyard Avenue is State Route 232 and a six-lane divided facility. Northeast of Route 101, State Route 232 is a secondary arterial facility, connecting the 101 Ventura Freeway with State Route 118 (Los Angeles Avenue). This street is also a principal entrance to Oxnard for westbound traffic on Route 101. Northeast of Route 101, it provides access to the westerly portion of the El Rio Community; southwest of Route 101, Vineyard Avenue serves the Northwest Community and the area south of the Santa Clara River and north of Gonzales Road.

Wooley Road: This is a major east-west thoroughfare that provides access to the residential community in the southwest portion of the City, to the central area of Oxnard, and to the Central Industrial Area. This road functions as a secondary arterial but is affected by the presence of the rail lines belonging to the Ventura County Railway as well as operational limitations of the "Five Points" intersection.

2.1.2 Study Intersections

Thirty-seven intersections have been identified as potentially impacted by the proposed project, and therefore, designated as study intersections. These intersections are as follows:

20. Ventura Rd at Gonzales Rd
24. Ventura Rd & Wooley Rd
42. Oxnard Blvd & US 101 NB Ramps
43. Oxnard Blvd & US 101 SB Ramps
45. Oxnard Blvd & Vineyard Ave
46. Oxnard Blvd & Gonzales Rd
49. Oxnard Blvd & Fifth St
50. Five-Points (Oxnard-Saviers-Wooley)
55. Vineyard Ave & US 101 NB Ramps
56. Vineyard Ave & US 101 SB Ramps
61. Rose Ave & Auto Center Dr
62. Rose Ave & US 101 NB Ramps
63. Rose Ave & US 101 SB Ramps
65. Rose Ave & Gonzales Rd
66. Rose Ave & Camino Del Sol
68. Rose Ave & Fifth St
69. Rose Ave & Wooley Rd
71. Rose Ave & Oxnard Blvd
72. Rose Ave & Channel Islands Blvd
73. Rose Ave & Bard Rd
74. Rose Ave & Pleasant Valley Rd
77. Dupont & Channel Islands Blvd
78. Bard Rd & Pleasant Valley Rd
79. Santa Clara Ave & Auto Center Dr
80. Rice Ave & US 101 SB Ramps
81. Rice Ave & Gonzales Rd
82. Rice Ave & Camino Del Sol
84. Rice Ave & Fifth St
85. Rice Ave & Wooley Rd
86. Rice Ave & Channel Islands Blvd
87. Rice Ave NB & Pleasant Valley Rd
88. Oxnard Blvd & Pleasant Valley Rd
89. Rice Ave & Hueneme Rd
90. Del Norte Blvd & US 101 NB Ramps
91. Del Norte Blvd & US 101 SB Ramps
92. Del Norte Blvd & Camino Del Sol
94. Del Norte Blvd & Fifth St

2.1.3 Existing Traffic Volumes and Levels of Service

Current turning movement traffic counts were obtained in 2007 and 2008, while traffic count data from 2005 was used for base volumes in the Oxnard Traffic Model forecast. Existing ADT's are shown in Figure 2-1 with existing AM and PM peak hour traffic volumes shown in Figure 2-2 and 2-3.

An analysis of existing conditions was conducted for the study area intersections using the ICU/HCM analysis methodology. The analyses were based on the existing intersection geometries shown in Figure 2-4, and current AM and PM peak hour traffic volumes. Table 2-1 presents the levels of service (LOS) for the study area intersections under existing conditions. The LOS is an index of the quality of traffic flow through an intersection as defined by the ICU and the HCM (See Reference 2 at the end of Chapter 1.0). The LOS definitions qualitatively describe operating characteristics under various conditions. The LOS definitions are presented in the Appendix of this report, as are the intersection capacity worksheets.

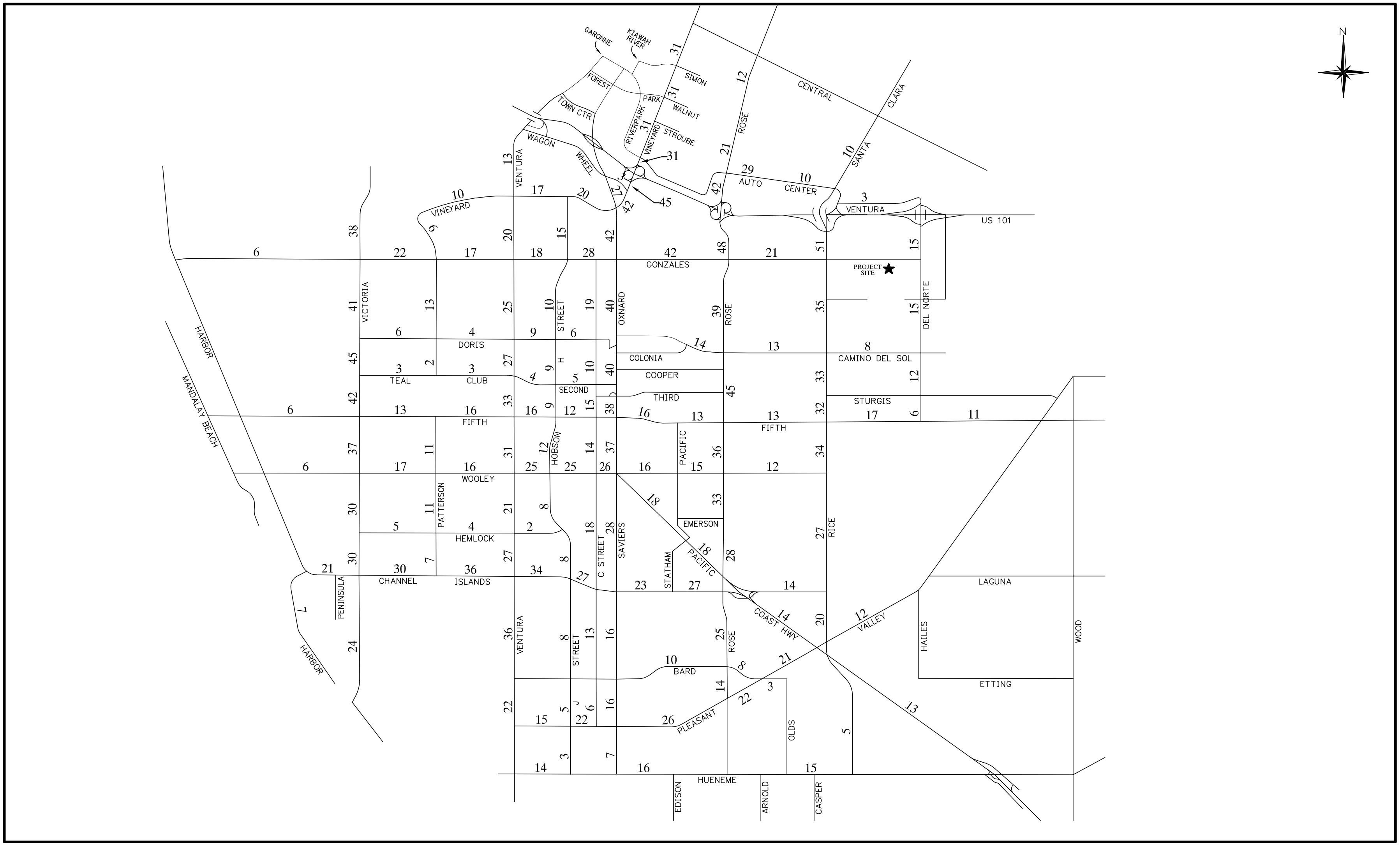


Figure 2-1

YEAR 2007/2008 ADT (000's)

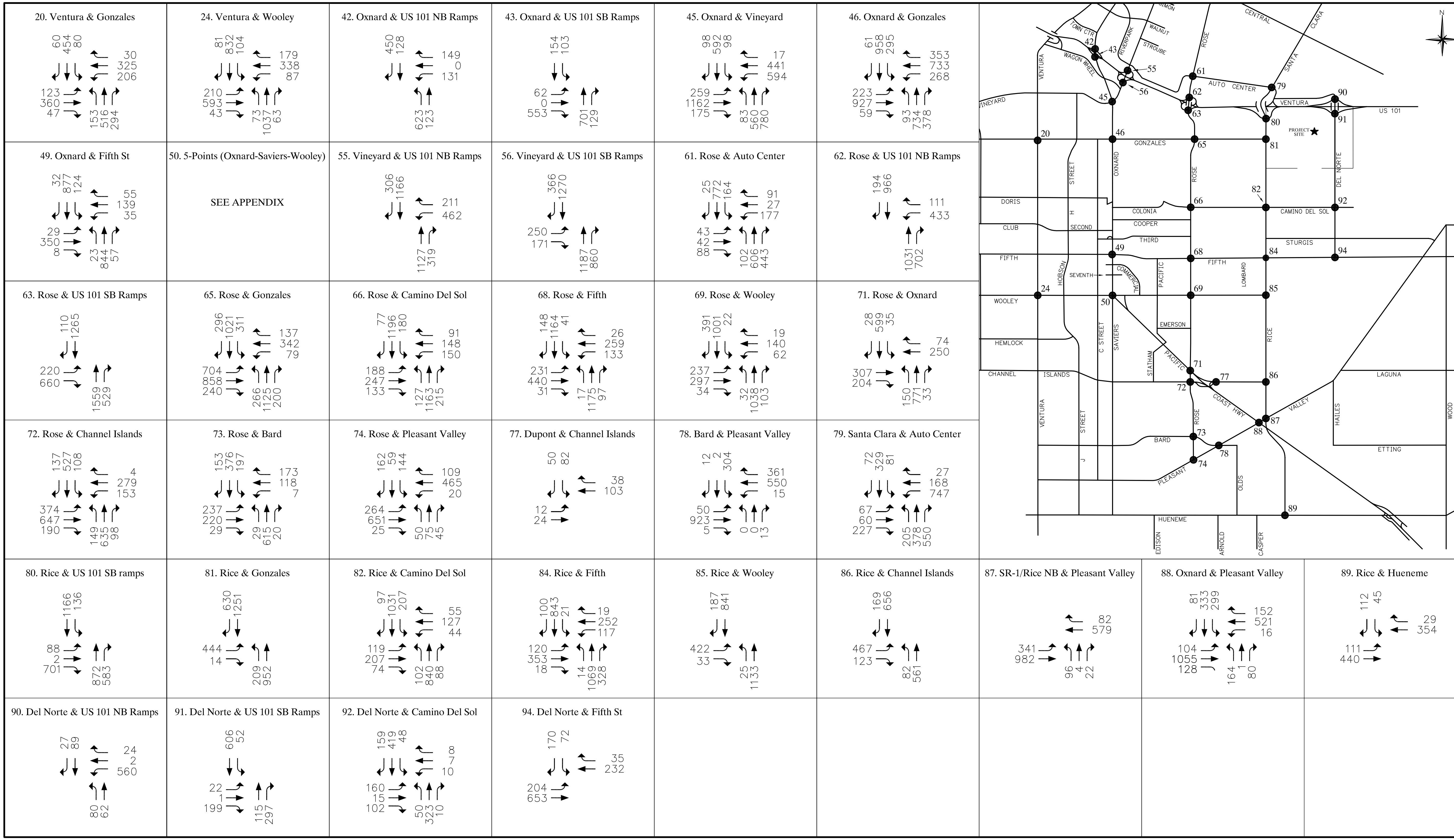


Figure 2-2

EXISTING AM PEAK HOUR VOLUMES

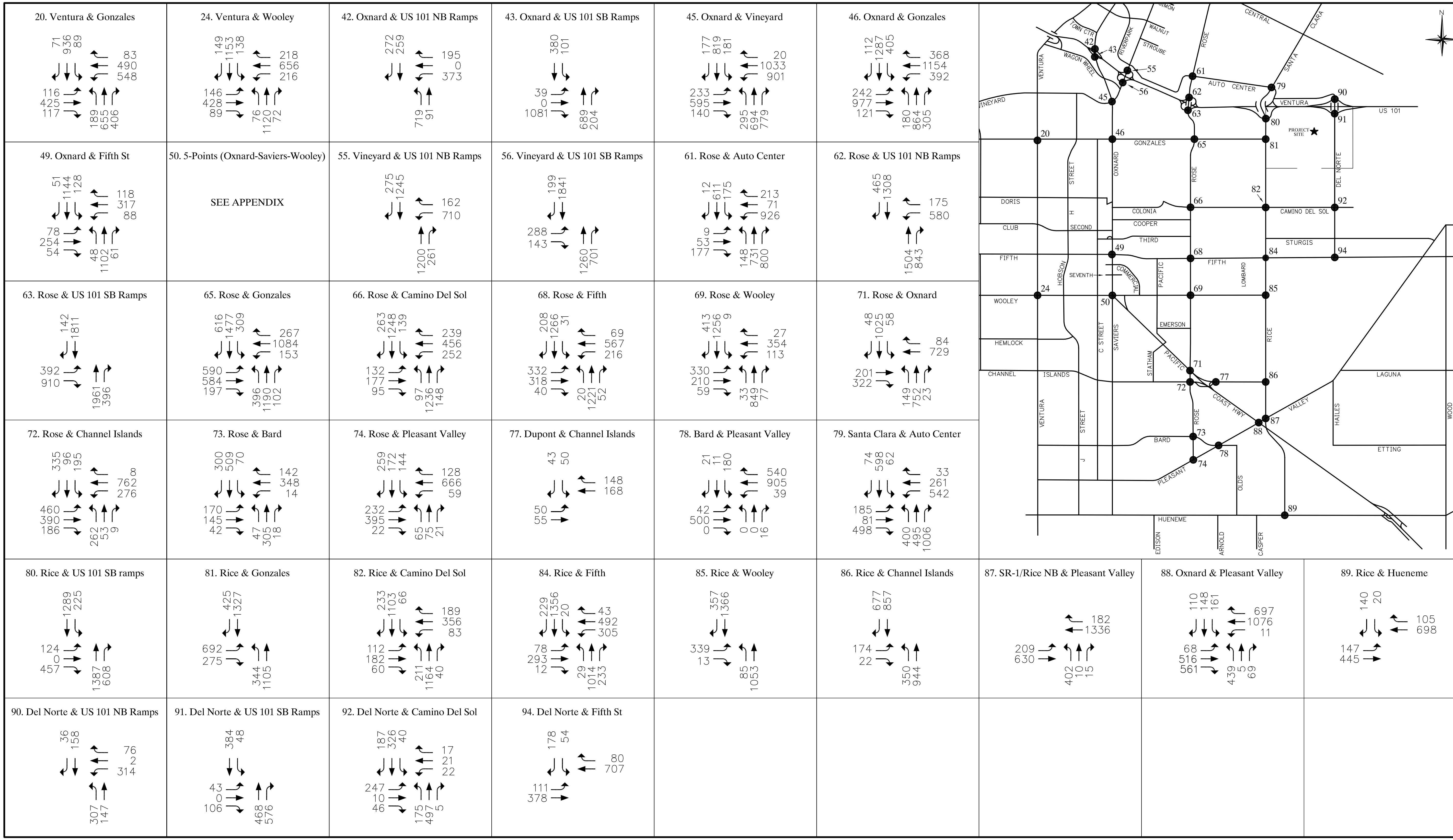
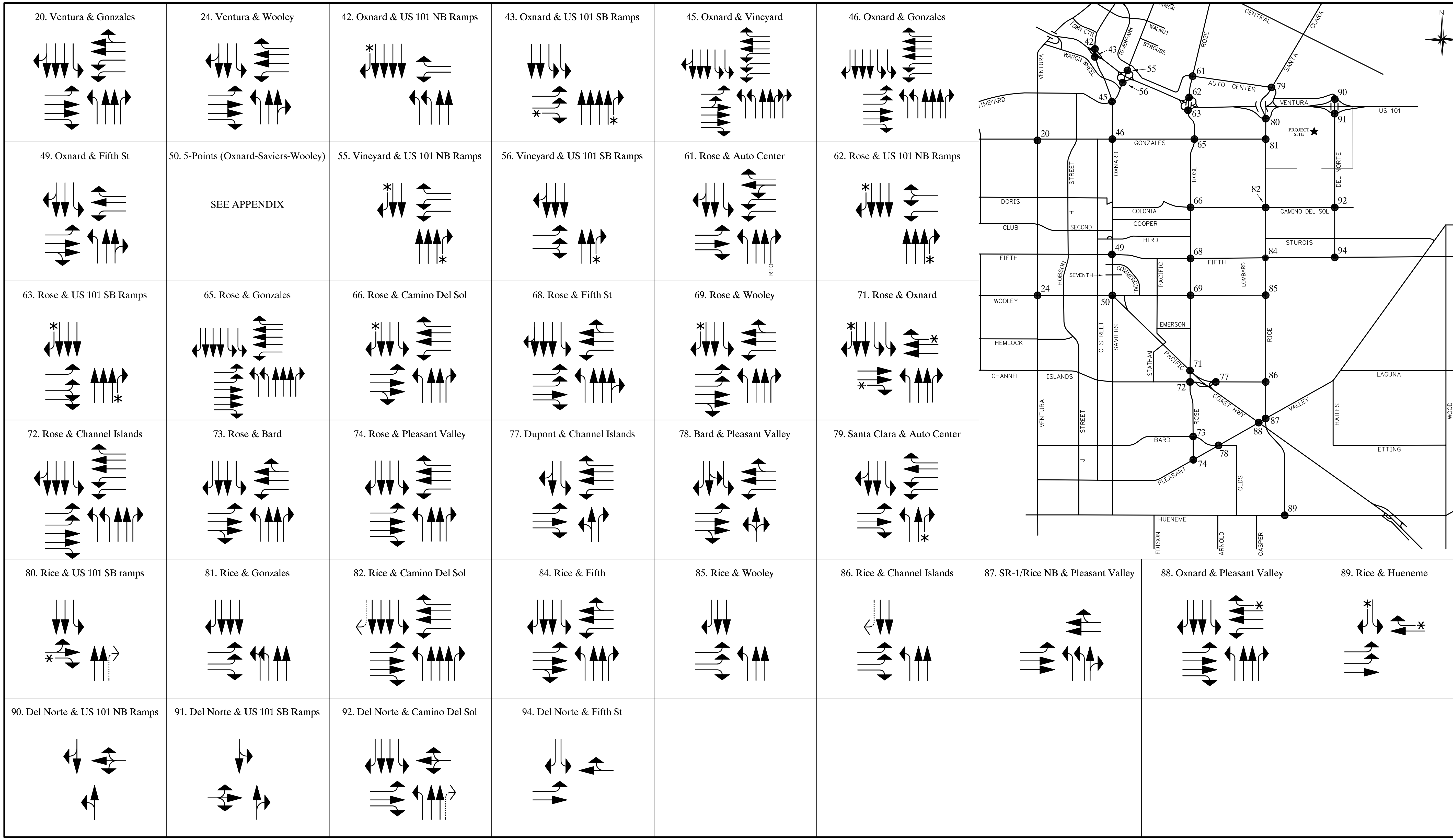


Figure 2-3

EXISTING PM PEAK HOUR VOLUMES



Legend

RTO Existing Lane
Right Turn Overlap
De-facto Right-Turn Lane
* Free Right-Turn Lane

Figure 2-4

EXISTING LANE CONFIGURATIONS

Table 2-1

LEVEL OF SERVICE – EXISTING CONDITIONS

Intersection	AM Peak Hour		PM Peak Hour	
	ICU	HCM	ICU	HCM
20. Ventura Rd at Gonzales Rd	.40	--	.63	--
24. Ventura Rd & Wooley Rd	.65	--	.76	--
42. Oxnard Blvd & US 101 NB Ramps	--	16.2 sec	--	19.0 sec
43. Oxnard Blvd & US 101 SB Ramps	--	4.7 sec	--	4.5 sec
45. Oxnard Blvd & Vineyard Ave	.59	27.9 sec	.76	33.9 sec
46. Oxnard Blvd & Gonzales Rd	.64	29.3 sec	.76	31.0 sec
49. Oxnard Blvd & Fifth St	.49	18.9 sec	.69	24.2 sec
50. Five-Points (Oxnard-Saviers-Wooley)	--	**145.2 sec**	--	**178.8 sec**
55. Vineyard Ave & US 101 NB Ramps	--	9.6 sec	--	12.6 sec
56. Vineyard Ave & US 101 SB Ramps	--	7.7 sec	--	7.4 sec
61. Rose Ave & Auto Center Dr	.41	--	.64	--
62. Rose Ave & US 101 NB Ramps	--	9.9 sec	--	12.5 sec
63. Rose Ave & US 101 SB Ramps	--	12.8 sec	--	17.6 sec
65. Rose Ave & Gonzales Rd	.62	--	**.84**	--
66. Rose Ave & Camino Del Sol	.68	--	.74	--
68. Rose Ave & Fifth St	.65	--	.66	--
69. Rose Ave & Wooley Rd	.47	--	.63	--
71. Rose Ave & Oxnard Blvd	.38	12.8 sec	.64	17.3 sec
72. Rose Ave & Channel Islands Blvd	.52	--	.56	--
73. Rose Ave & Bard Rd	.53	--	.45	--
74. Rose Ave & Pleasant Valley Rd	.43	--	.47	--
77. Dupont & Channel Islands Blvd	.29	--	.56	--
78. Bard Rd & Pleasant Valley Rd	.42	--	.55	--
79. Santa Clara Ave & Auto Center Dr	.56	--	.75	--
80. Rice Ave & US 101 SB Ramps	--	7.1 sec	--	11.9 sec
81. Rice Ave & Gonzales Rd	.49	--	.61	--
82. Rice Ave & Camino Del Sol	.42	--	.54	--
84. Rice Ave & Fifth St	.53	--	.73	--
85. Rice Ave & Wooley Rd	.48	--	.59	--
86. Rice Ave & Channel Islands Blvd	.41	--	.65	--
87. SR-1/Rice NB & Pleasant Valley Rd	.45	10.4 sec	.73	24.4 sec
88. Oxnard Blvd & Pleasant Valley Rd	.57	22.0 sec	.70	24.1 sec
89. Rice Ave & Hueneme Rd	.31	--	.50	--
90. Del Norte Blvd & US 101 NB Ramps*	--	24.7 sec	--	20.3 sec
91. Del Norte Blvd & US 101 SB Ramps*	--	**63.8 sec**	--	**182.7 sec**
92. Del Norte Blvd & Camino Del Sol	.28	--	.40	--
94. Del Norte Blvd & Fifth St	.46	--	.62	--

* Stop Sign (HCM methodology)

sec = seconds of delay

Level of service ranges:	ICU	Signalized	Stop Sign Controlled
	.00 - .60 A	0.0 – 10.0 sec A	0.0 – 10.0 sec A
	.61 - .70 B	10.1 – 20.0 sec B	10.01 – 15.0 sec B
	.71 - .80 C	20.1 – 35.0 sec C	15.01 – 25.0 sec C
	.81 - .90 D	35.1 – 55.0 sec D	25.01 – 35.0 sec D
	.91 – 1.00 E	55.1 – 80.0 sec E	35.01 – 50.0 sec E
	Above 1.00 F	Above 80.01 sec F	Above 50.01 sec F

As can be seen from Table 2-1, most intersections operate at the City's acceptable LOS C during both peak hours for existing conditions except for three intersections shown in Table 2-2. The intersection of Rose at Gonzales performs at an unacceptable LOS during the PM peak hour, while the intersections of Del Norte at US Southbound 101 and Five-Points (Oxnard-Saviers-Wooley) perform at an unacceptable LOS during both AM and PM peak hours.

Table 2-2

UNACCEPTABLE LEVEL OF SERVICE – EXISTING CONDITIONS

	AM Peak Hour		PM Peak Hour	
Intersection	**ICU**	**HCM**	**ICU**	**HCM**
50. Five-Points (Oxnard-Saviers-Wooley)	--	**145.2 sec**	--	**178.8 sec**
65. Rose Ave & Gonzales Rd	.62	--	**.84**	--
91. Del Norte Blvd & US 101 SB Ramps*	--	**63.8 sec**	--	**182.7 sec**

* Stop Sign (HCM methodology)

sec = seconds of delay

Level of service ranges:	ICU	Signalized	Stop Sign Controlled
	.00 - .60 A	0.0 – 10.0 sec A	0.0 – 10.0 sec A
	.61 - .70 B	10.1 – 20.0 sec B	10.01 – 15.0 sec B
	.71 - .80 C	20.1 – 35.0 sec C	15.01 – 25.0 sec C
	.81 - .90 D	35.1 – 55.0 sec D	25.01 – 35.0 sec D
	.91 – 1.00 E	55.1 – 80.0 sec E	35.01 – 50.0 sec E
	Above 1.00 F	Above 80.01 sec F	Above 50.01 sec F

3.0 PROJECT DESCRIPTION

This chapter describes the project in terms of its transportation characteristics. Trip generation is summarized and the distribution of project trips on the study area roadway network is presented.

3.1 PROJECT OVERVIEW

A total of 8,500,000 square feet (sf) of overall development activities is anticipated; 5,500,000 square feet of industrial uses and 2,900,000 square feet of business and research, that also includes office uses. Included in this total is also 100,000 sf of commercial use, with the intent of providing services to employees within the Sakioka development for daily needs, while on breaks, and during lunch periods. Because of the large size and scale of the development, construction is will take place over a 20-year time frame in four phases. Figure 3-1 shows the specific plan area conceptual site plan.

3.2 PROJECT TRIP GENERATION

The project trip generation was calculated using trip generation rates contained in the OTM. The resulting trip generation is summarized in Table 3-1 and shows a net-trips total of 8,370 AM peak hour trips (6,705 inbound and 1,665 outbound), 8,738 PM peak hour trips (2,220 inbound and 6,518 outbound), and 70,750 daily trips. Table 3-2 shows the phasing time frame for the sites construction.

3.3 PROJECT TRIP ASSIGNMENTS

In order to assign the project-generated traffic to the area roadway system, the directional distribution of the project traffic was estimated and project traffic assignments determined. The project traffic assignments were based on the trip distribution from modeled select zone volumes from the Oxnard Traffic Model. The project ADT and trip distributions are presented in Figures 3-2 and 3-3.

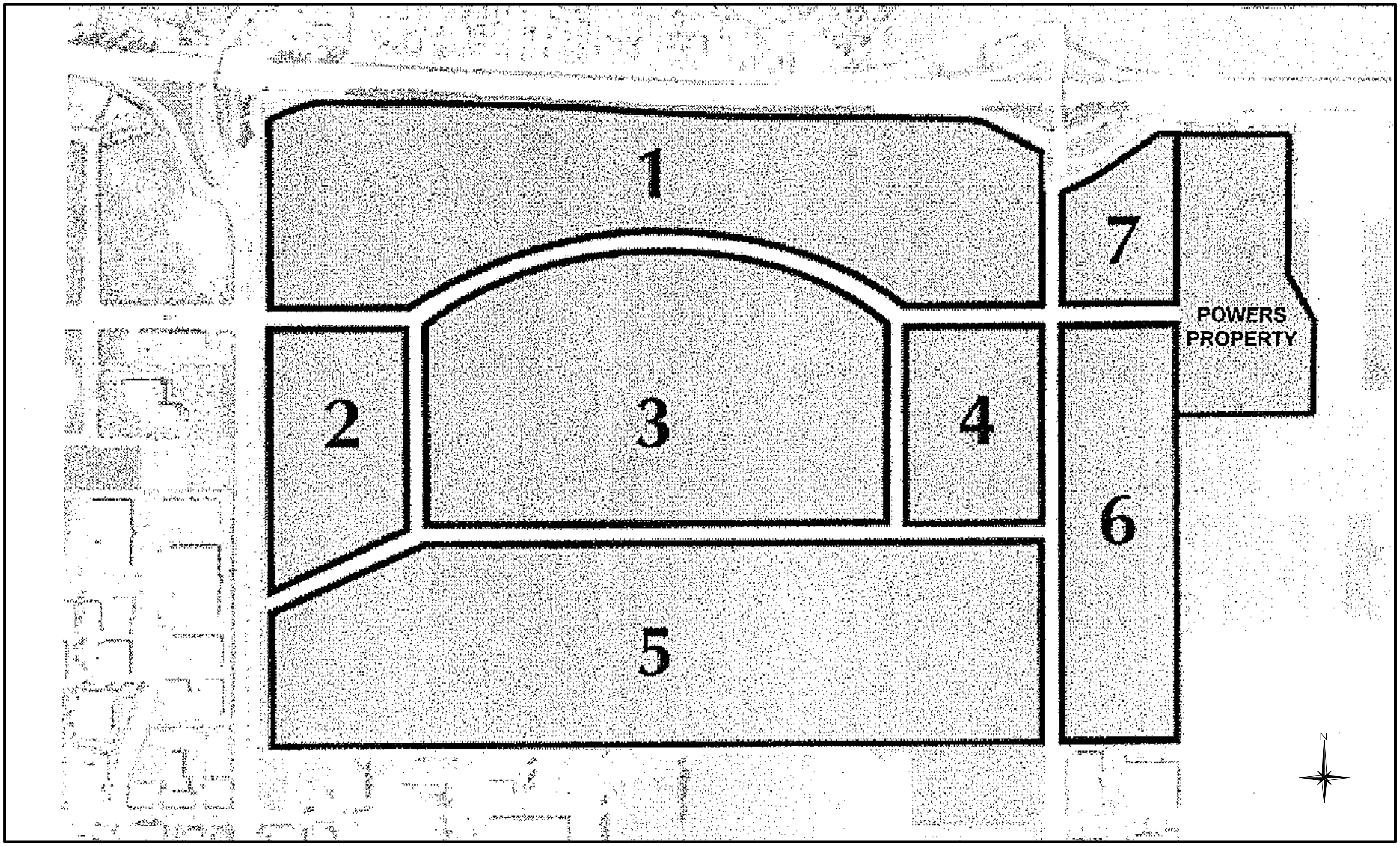


Figure 3-1

PROJECT SITE PLAN ZONES

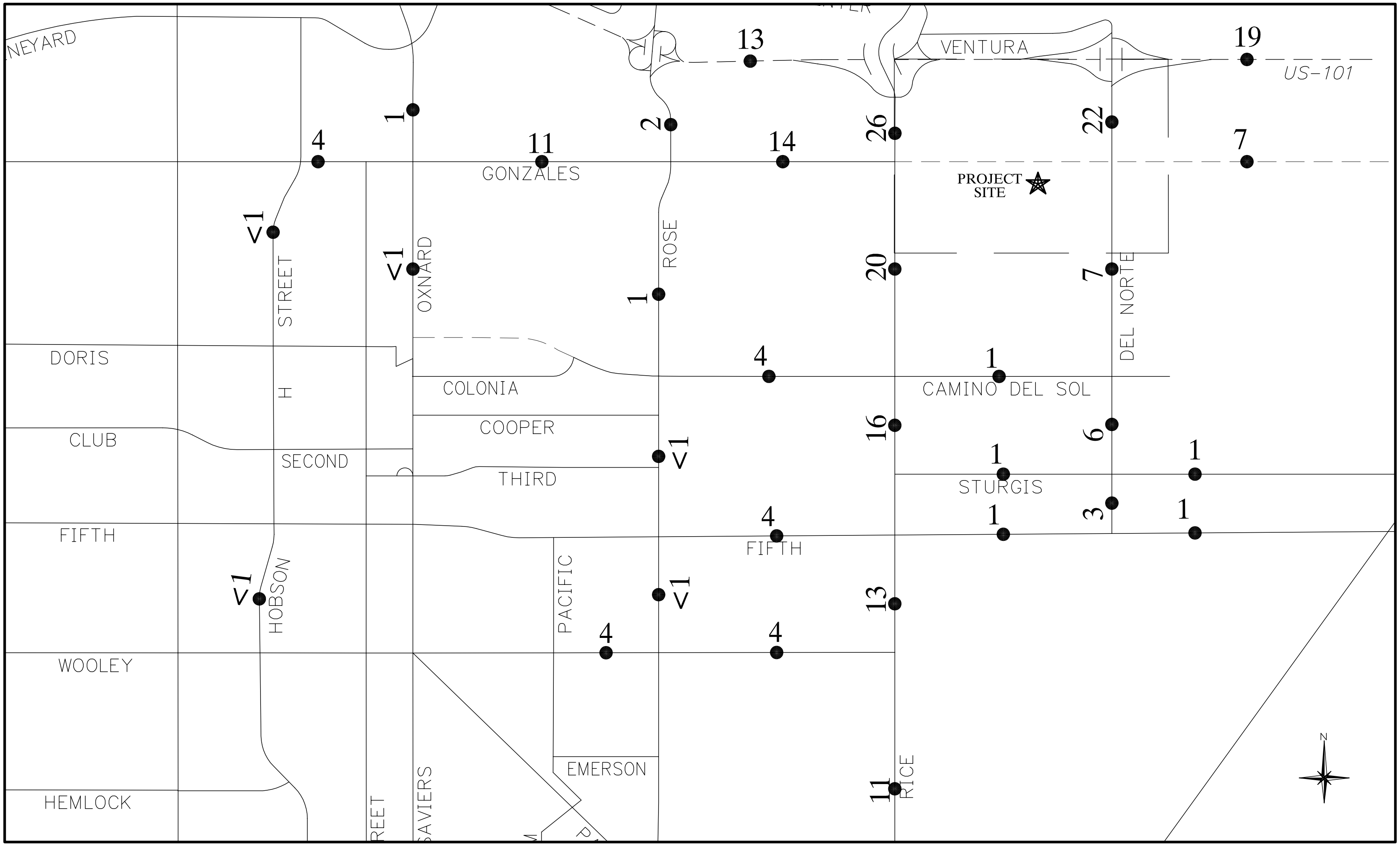
Table 3-1

TRIP GENERATION SUMMARY-SAKIOKA FARMS SPECIFIC PLAN AREA

TRIP RATES **Land Use**	**Units**	**AM Peak Hour In**	**AM Peak Hour Out**	**AM Peak Hour Total**	**PM Peak Hour In**	**PM Peak Hour Out**	**PM Peak Hour Total**	**ADT**
General Commercial	TSF	0.51	0.33	0.84	1.46	1.59	3.05	35.00
Office	TSF	1.66	0.23	1.89	0.31	1.51	1.82	13.50
Business Park/R&D Center	TSF	1.12	0.22	1.34	0.23	0.96	1.19	10.44
Light/General Industrial	TSF	0.58	0.18	0.76	0.25	0.61	0.85	6.50

AREA	LAND USE	Size	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	ADT
1	Office	400 TSF	664	92	756	124	604	728	5,400
	Business Park/R&D Center	1,300 TSF	1,456	286	1,742	299	1,248	1,547	13,572
	General Commercial	80 TSF	41	26	67	117	127	244	2,800
	SUBTOTAL		2,161	404	2,565	540	1,979	2,519	21,772
2	Business Park/R&D Center	200 TSF	224	44	268	46	192	238	2,088
	Light/General Industrial	600 TSF	348	108	456	150	366	516	3,900
	SUBTOTAL		572	152	724	196	558	754	5,988
3	Business Park/R&D Center	600 TSF	672	132	804	138	576	714	6,264
	Light/General Industrial	1,200 TSF	696	216	912	300	732	1,032	7,800
	SUBTOTAL		1,368	348	1,716	438	1,308	1,746	14,064
4	Business Park/R&D Center	200 TSF	224	44	268	46	192	238	2,088
	Light/General Industrial	500 TSF	290	90	380	125	305	430	3,250
	SUBTOTAL		514	134	648	171	497	668	5,338
5	Light/General Industrial	2.500 TSF	1,450	450	1,900	625	1,525	2,150	16,250
	SUBTOTAL		1,450	450	1,900	625	1,525	2,150	16,250
6	Business Park/R&D Center	100 TSF	112	22	134	23	96	119	1,044
	Light/General Industrial	700 TSF	406	126	532	175	427	602	4,550
	SUBTOTAL		518	148	666	198	523	721	5,594
7	Business Park/R&D Center	100 TSF	112	22	134	23	96	119	1,044
	General Commercial	20 TSF	10	7	17	29	32	61	700
	SUBTOTAL		122	29	151	52	128	180	1,744
		TOTAL	**6,705**	**1,665**	**8,370**	**2,220**	**6,518**	**8,738**	**70,750**
		Existing Sakioka Farms Trip Totals	**10**	**8**	**18**	**7**	**11**	**18**	**190**

Table 3-2 SAKIOKA FARMS SPECIFIC PLAN AREA-PHASING TIME LINE							
	COMPLETION PERCENTAGE						
	AREA 1	**AREA 2**	**AREA 3**	**AREA 4**	**AREA 5**	**AREA 6**	**AREA 7**
Phase 1 (2010)	25%	25%	25%	25%	33%		
Phase 2 (2015)	50%	50%	75%	50%	66%	25%	
Phase 3 (2020)	75%	75%	100%	75%	100%	50%	25%
Phase 4 (2025)	100%	100%		100%		100%	100%



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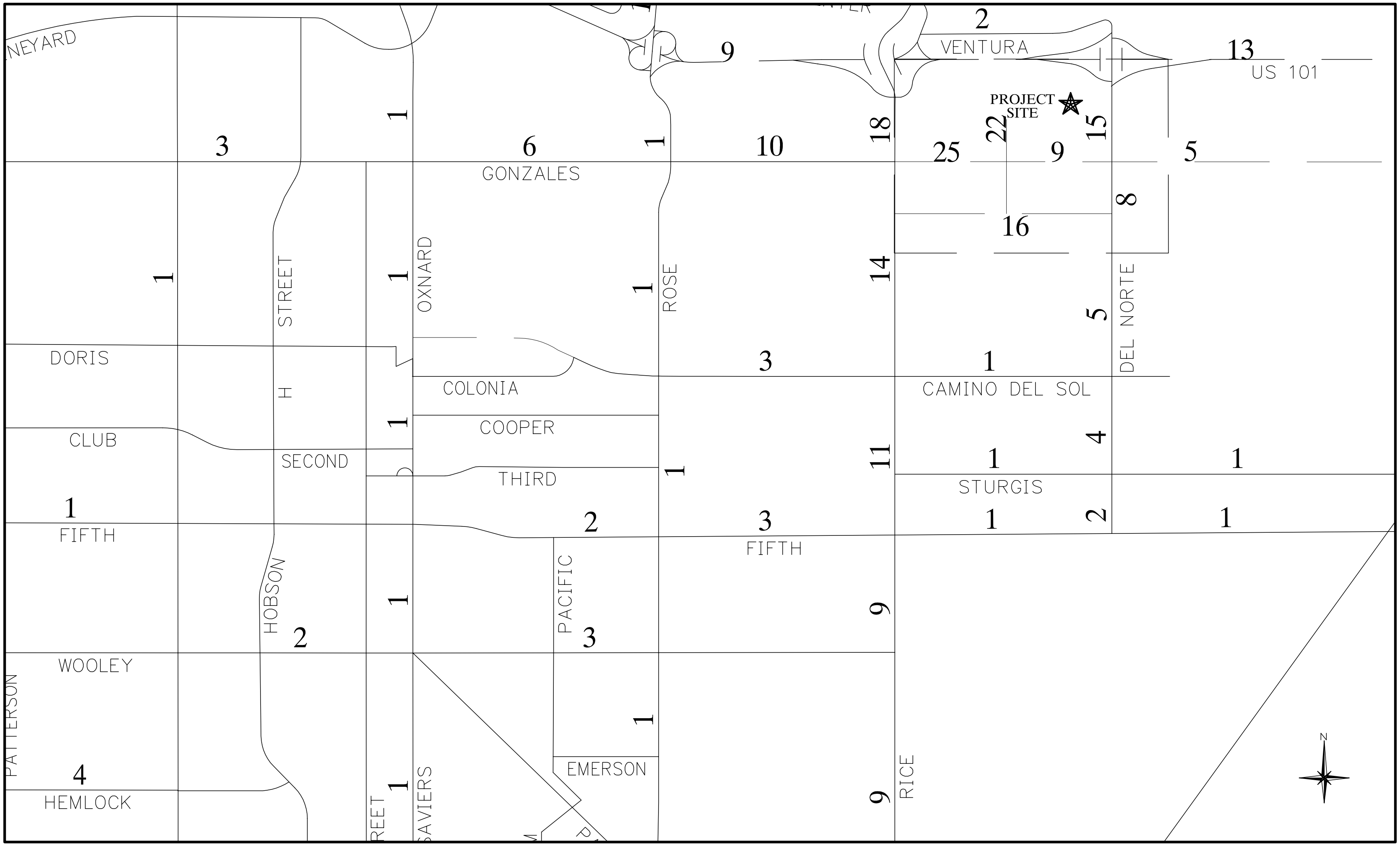
XX Trip percentage

Figure 3-2

PROJECT DISTRIBUTION



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XX Project ADT (000's)

Figure 3-3

PROJECT ADT

Project traffic volumes for AM and PM peak hours at the study area intersections are presented in Figures 3-4 and 3-5, respectively.

3.3.1 Access and Internal Circulation

Access to the project will be provided by the extension of Gonzales Road from Rice Avenue and through the project area to Del Norte Boulevard. As part of the City's 2030 General Plan, Gonzales Road will continue to extend east past Del Norte Boulevard and connect to the City of Camarillo with pass-thru traffic between the Cities traveling through the project. A second east-west arterial located 1,200 feet south of the Gonzales Road on the project site is also planned which, here on, in this report is referred to as "Sakioka Street A". Sakioka Street A will bisect Rice Avenue and Del Norte Boulevard providing access to Sakioka Farms through "T" intersections, which is critical to relieve traffic demand at the Gonzales Road intersections. The incremental phased roadway construction shall be completed prior to occupancy of the facility(s) being served.

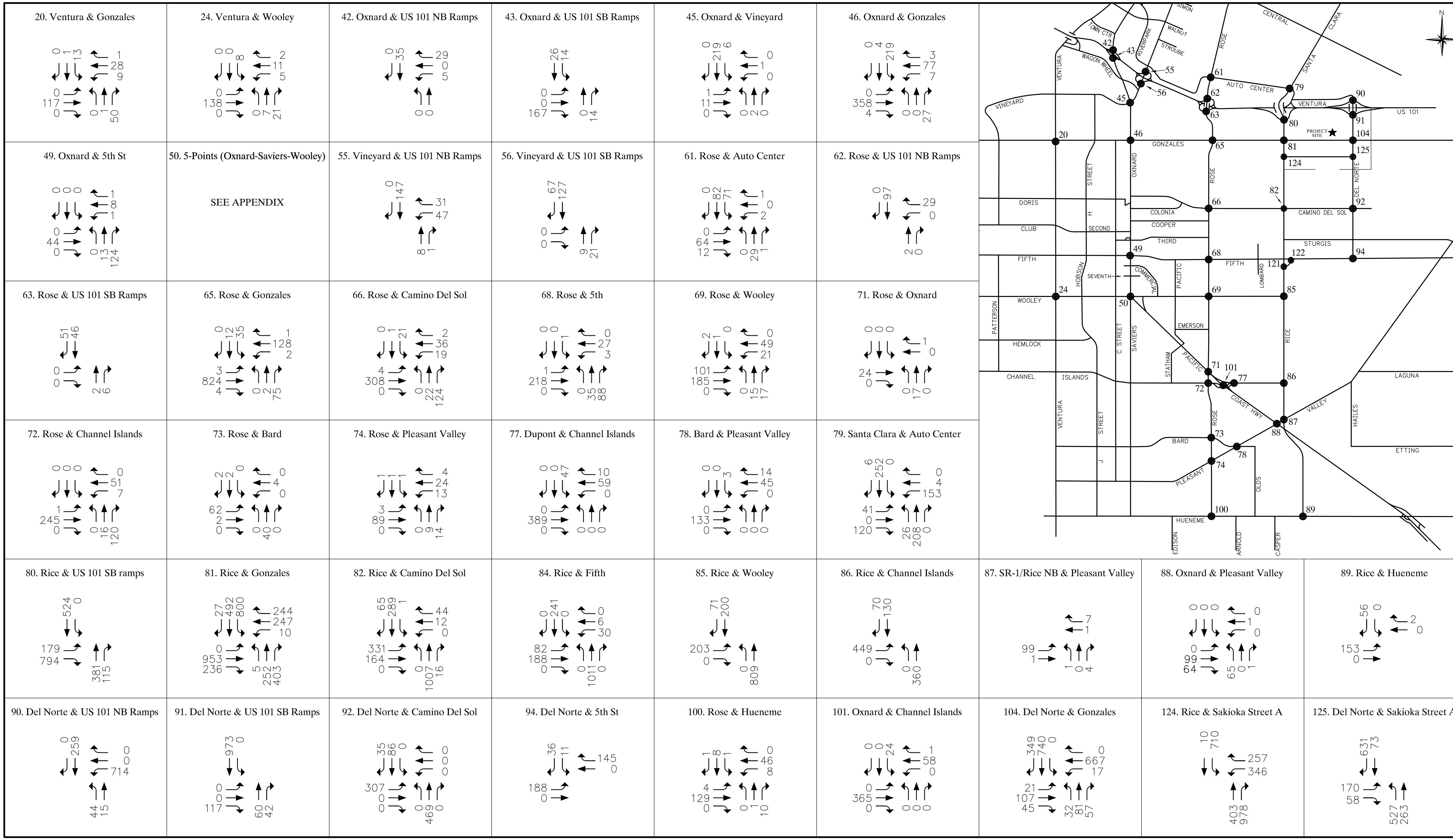


Figure 3-4

PROJECT AM PEAK HOUR VOLUMES

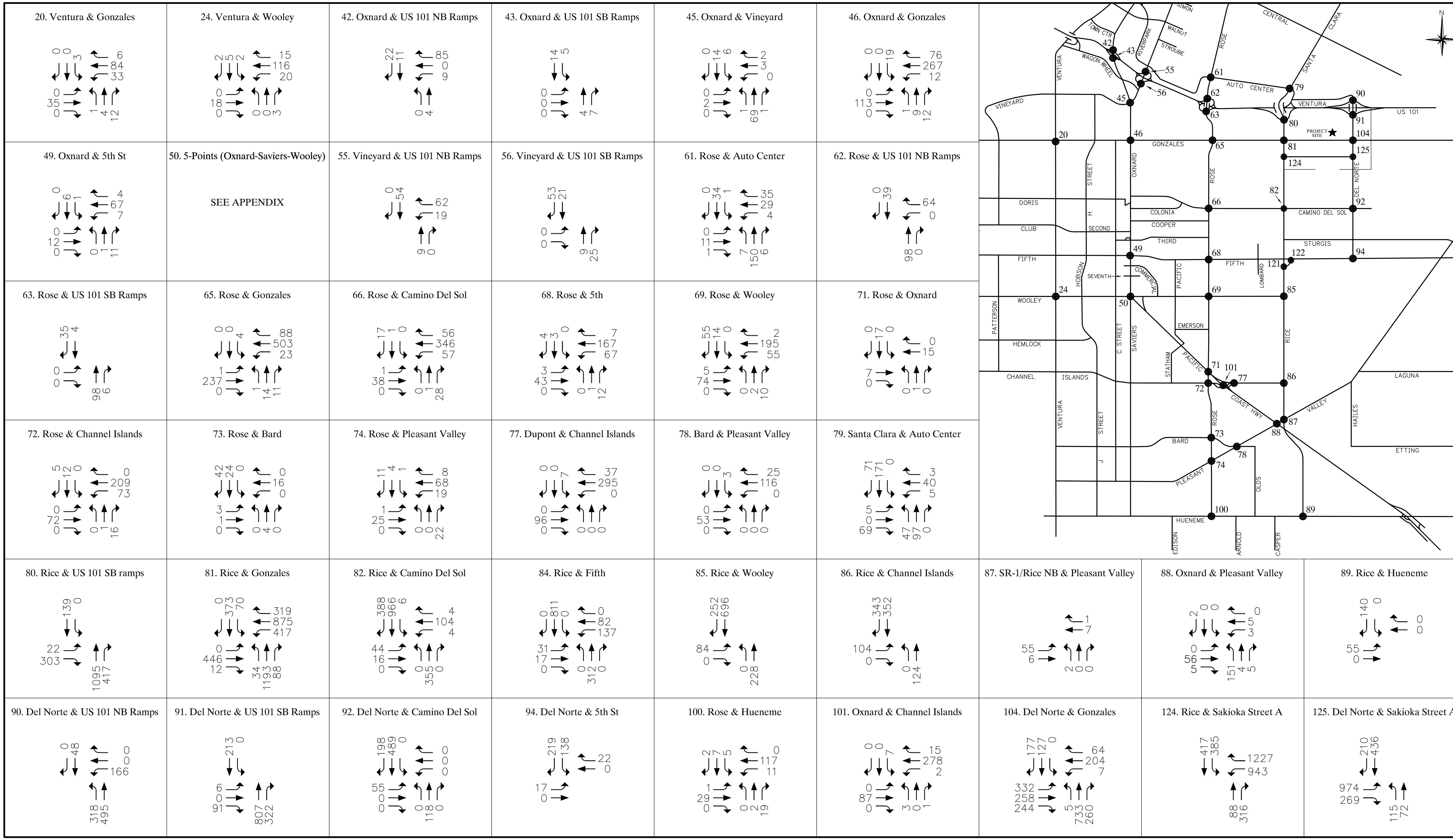


Figure 3-5

PROJECT PM PEAK HOUR VOLUMES

4.0 IMPACT ANALYSIS

This chapter addresses the traffic impacts of the proposed project. Traffic conditions with and without the proposed project are described in the following sections. Project impacts are identified using the criteria outlined in Chapter 1.0.

4.1 CUMULATIVE ANALYSIS

The cumulative traffic analysis is based on the existing and year 2030 settings. The following sections discuss the existing-with-project and year 2030 OTM with and without-project conditions.

4.1.1 Existing with Project Traffic Conditions

The existing-with-project traffic volumes are the summation of the existing volumes and the project generated trips. The same intersection analysis methodologies were applied at each of the study intersections using the existing-with-project traffic volumes and existing geometrics at the study area intersections. The existing-with-project ADT and traffic volume estimates for the AM and PM peak hours of a typical weekday for the intersections are shown in Figures 4-1 through 4-3. Table 4-1 shows all intersections operate at acceptable levels of service during the AM and PM peak hours with the addition of project traffic except at the 11 locations listed below:

46. Oxnard Blvd & Gonzales Rd
50. Five-Points (Oxnard-Saviers-Wooley)
65. Rose Ave & Gonzales Rd
66. Rose Ave & Camino Del Sol
68. Rose Ave & Fifth St
82. Rice Ave & Camino Del Sol
84. Rice Ave & Fifth St
85. Rice Ave & Wooley Rd
86. Rice Ave & Channel Islands
90. Del Norte Blvd & US 101 NB Ramps
91. Del Norte Blvd & US 101 SB Ramps

Implementation of a portion of the buildout improvements planned under the City's General Plan for these locations is forecast to bring these locations back to an acceptable LOS, except at the Five-Points intersection as it is currently at buildout capacity (see section 4.2 Project Phasing, Mitigation and Future Roadway Improvements for a timeline and summary of necessary intersection improvements).

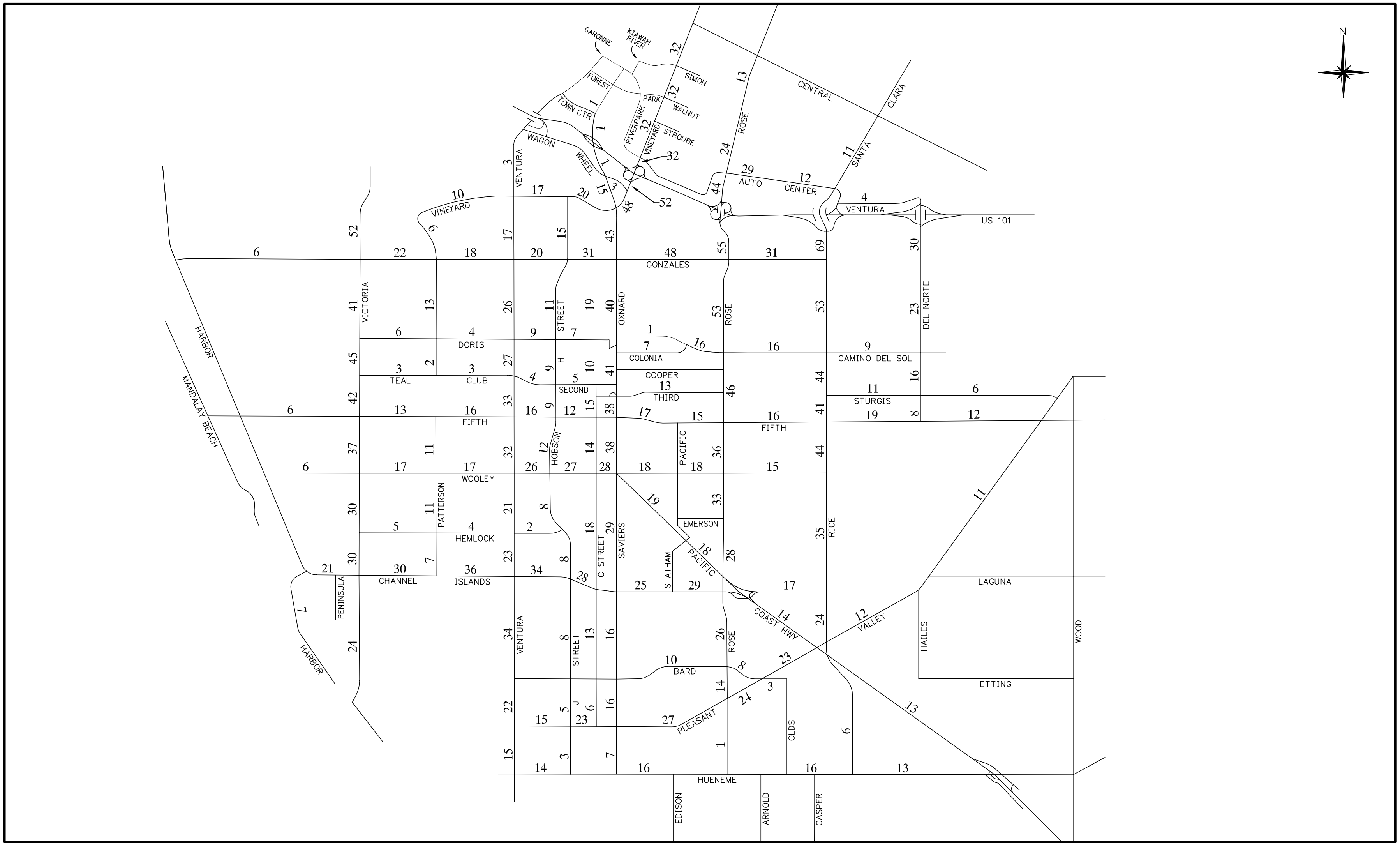


Figure 4-1

EXISTING PLUS PROJECT ADT (000's)

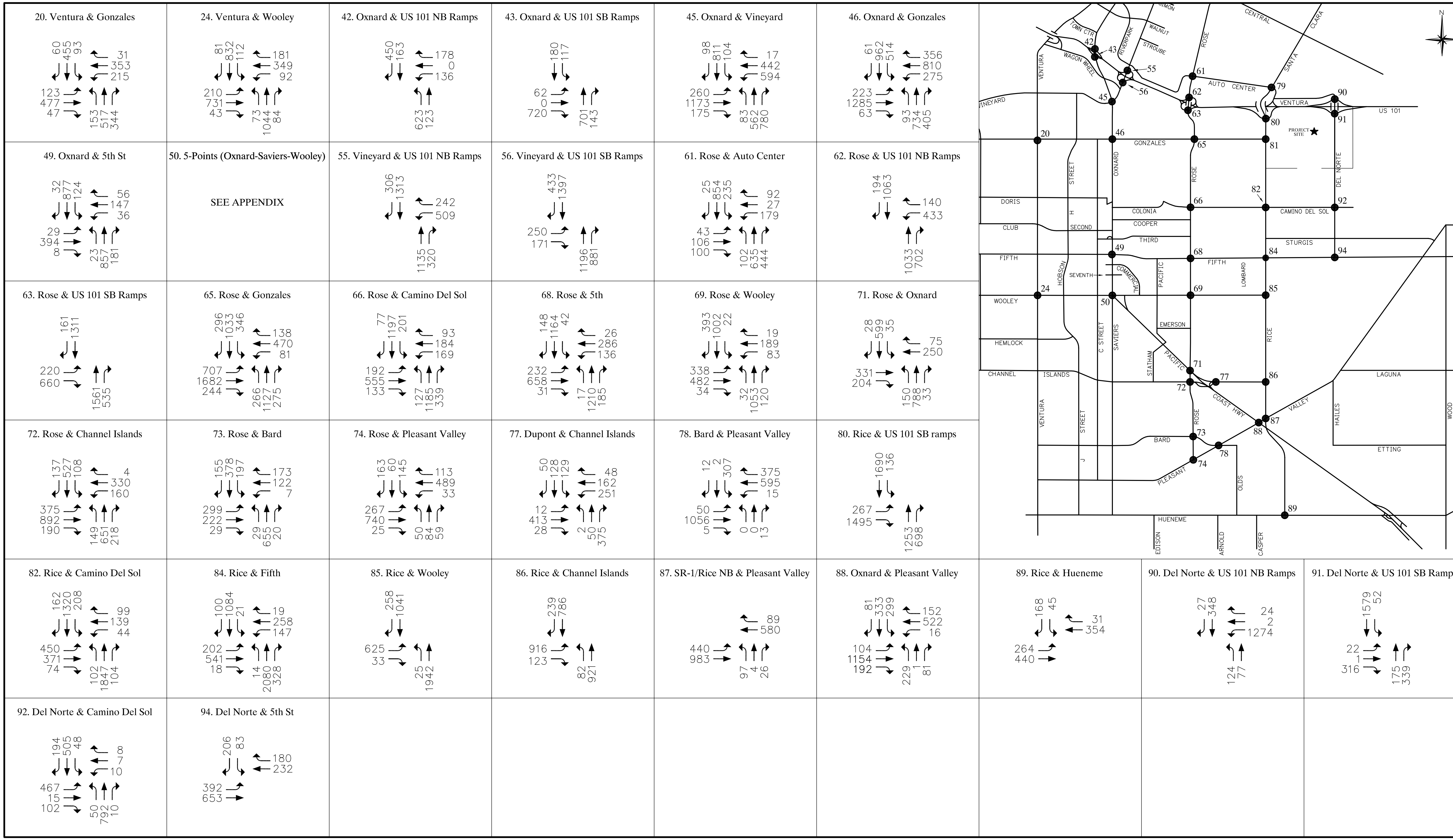
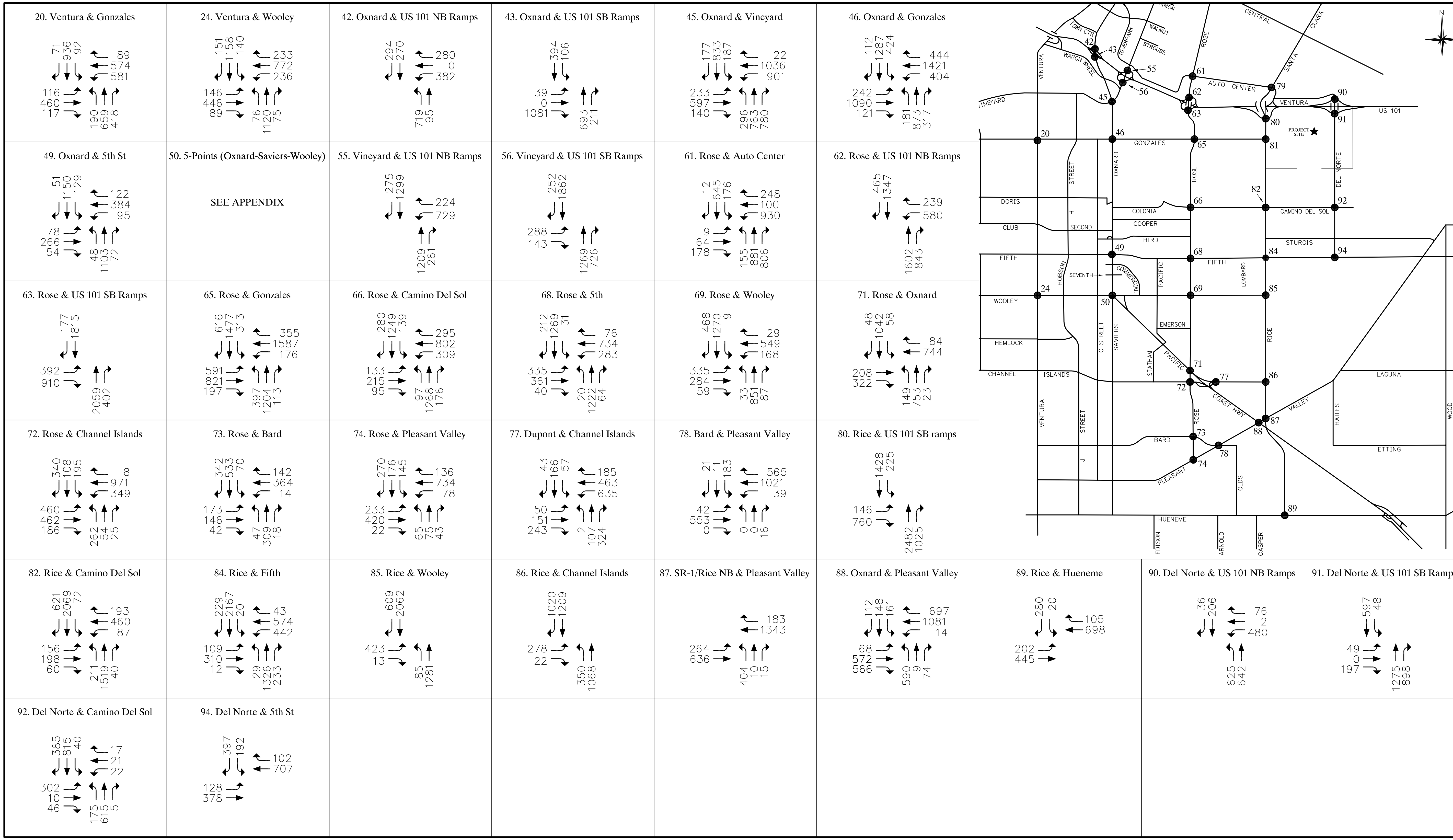


Figure 4-2

EXISTING PLUS PROJECT AM PEAK HOUR VOLUMES



50. 5-Points (Oxnard-Saviers-Wooley) SEE APPENDIX

Figure 4-3

EXISTING PLUS PROJECT PM
PEAK HOUR VOLUMES

Table 4-1

LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS

	EXISTING				EXISTING+PROJECT			
	AM		PM		AM		PM	
Intersection	**ICU**	**HCM**	**ICU**	**HCM**	**ICU**	**HCM**	**ICU**	**HCM**
20. Ventura Rd at Gonzales Rd	.40	--	.63	--	.45	--	.65	--
24. Ventura Rd & Wooley Rd	.65	--	.76	--	.71	--	.79	--
42. Oxnard Blvd & US 101 NB Ramps	--	16.2 sec	--	19.0 sec	--	16.6 sec	--	19.0 sec
43. Oxnard Blvd & US 101 SB Ramps	--	4.7 sec	--	4.5 sec	--	4.7 sec	--	4.5 sec
45. Oxnard Blvd & Vineyard Ave	.59	27.9 sec	.76	33.9 sec	.60	28.6 sec	.76	34.9 sec
46. Oxnard Blvd & Gonzales Rd	.64	29.3 sec	.76	31.0 sec	**.83**	**38.1 sec**	.80	34.3 sec
49. Oxnard Blvd & Fifth St	.49	18.9 sec	.69	24.2 sec	.55	20.2 sec	.74	27.6 sec
50. Five-Points (Oxnard-Saviers-Wooley)	--	**145.2 sec**	--	**178.8 sec**	--	**149.0 sec**	--	**173.0 sec**
55. Vineyard Ave & US 101 NB Ramps	--	9.6 sec	--	12.6 sec	--	10.6 sec	--	13.6 sec
56. Vineyard Ave & US 101 SB Ramps	--	7.7 sec	--	7.4 sec	--	8.1 sec	--	7.6 sec
61. Rose Ave & Auto Center Dr	.41	--	.64	--	.50	--	.65	--
62. Rose Ave & US 101 NB Ramps	--	9.9 sec	--	12.5 sec	--	10.3 sec	--	13.7 sec
63. Rose Ave & US 101 SB Ramps	--	12.8 sec	--	17.6 sec	--	12.6 sec	--	17.7 sec
65. Rose Ave & Gonzales Rd	.62	--	**.84**	--	.74	--	**.94**	--
66. Rose Ave & Camino Del Sol	.68	--	.74	--	**.83**	--	**.82**	--
68. Rose Ave & Fifth St	.65	--	.66	--	**.82**	--	.73	--
69. Rose Ave & Wooley Rd	.47	--	.63	--	.55	--	.70	--
71. Rose Ave & Oxnard Blvd	.38	12.8 sec	.64	17.3 sec	.38	13.1 sec	.65	17.6 sec
72. Rose Ave & Channel Islands Blvd	.52	--	.56	--	.60	--	.62	--
73. Rose Ave & Bard Rd	.53	--	.45	--	.59	--	.47	--
74. Rose Ave & Pleasant Valley Rd	.43	--	.47	--	.44	--	.49	--
77. Dupont & Channel Islands Blvd	.29	--	.56	--	.61	--	.68	--
78. Bard Rd & Pleasant Valley Rd	.42	--	.55	--	.45	--	.60	--
79. Santa Clara & Auto Center/NB-101 Off	.56	--	.75	--	--	--	--	--
80. Rice Ave & US 101 SB Ramps	--	7.1 sec	--	11.9 sec	--	32.6 sec	--	32.9 sec
81. Rice Ave & Gonzales Rd	.49	--	.61	--	--	--	--	--
82. Rice Ave & Camino Del Sol	.42	--	.54	--	**.83**	--	.80	--
84. Rice Ave & Fifth St	.53	--	.73	--	**.92**	--	**1.08**	--
85. Rice Ave & Wooley Rd	.48	--	.59	--	**.81**	--	**.82**	--
86. Rice Ave & Channel Islands Blvd	.41	--	.65	--	.59	--	**.88**	--
87. SR-1/Rice NB & Pleasant Valley Rd	.45	10.4 sec	.73	24.4 sec	.52	12.3 sec	.78	30.6 sec
88. Oxnard Blvd & Pleasant Valley Rd	.57	22.0 sec	.70	24.1 sec	.61	23.3 sec	.80	34.1 sec
89. Rice Ave & Hueneme Rd	.31	--	.50	--	.33	--	.51	--
90. Del Norte Blvd & US 101 NB Ramps*	--	24.7 sec	--	20.3 sec	--	**442.0 sec**	--	**416.5 sec**
91. Del Norte Blvd & US 101 SB Ramps*	--	**63.8 sec**	--	**182.7 sec**	--	**717.9 sec**	--	**924.2 sec**
92. Del Norte Blvd & Camino Del Sol	.28	--	.40	--	.59	--	.59	--
94. Del Norte Blvd & Fifth St	.46	--	.62	--	.56	--	.78	--

* Stop Sign Controlled (HCM methodology) sec = seconds of delay

Level of service ranges:

ICU	Signalized	Stop Sign Controlled
.00 - .60 A	0.0 – 10.0 sec A	0.0 – 10.0 sec A
.61 - .70 B	10.1 – 20.0 sec B	10.01 – 15.0 sec B
.71 - .80 C	20.1 – 35.0 sec C	15.01 – 25.0 sec C
.81 - .90 D	35.1 – 55.0 sec D	25.01 – 35.0 sec D
.91 – 1.00 E	55.1 – 80.0 sec E	35.01 – 50.0 sec E
Above 1.00 F	Above 80.01 sec F	Above 50.01 sec F

4.1.2 Highway 101 Analysis

This study also includes a capacity analysis of Highway 101 because of its close proximity to the project site and the significant number of project trips that access it. The volume-to-capacity (V/C) analysis of Highway 101 shown in Table 4-2 was conducted using the 2007/2008 Caltrans Traffic Volumes and Truck Volumes.

As shown from Table 4-2, Highway 101 has only one deficient segment, the portion south of the project site (Camarillo, JCT. RTE. 34, Lewis Rd. Interchange) in the southbound direction. The existing plus project traffic to Highway 101 creates a significant impact to the highway in the southbound direction at the existing deficient location. The addition of fourth travel lane at this location will mitigate the project's impact on Highway 101.

4.1.3 Year 2030 Traffic Conditions

Traffic volumes for year 2030 are derived from the modeled volumes used in the City of Oxnard Traffic Model. The 2030 analysis covers two scenarios, the first is 2030 OTM with the Sakioka Farms proposed land uses and the second covers the OTM with no project. The current 2030 Oxnard Traffic Model ADT and traffic volumes are shown in Figures 4-4 through 4-6. The same intersection analysis methodologies were applied at each of the study intersections using the year 2030 traffic volumes. The analyses planned future intersection lane geometrics for study intersections, which is shown in Figure 4-7. As shown in Table 4-3, all study intersections are planned to operate at an acceptable level of service with the exception of the five locations listed below:

45. Oxnard Blvd & Vineyard Ave (PM LOS "D")
46. Oxnard Blvd & Gonzales Rd (PM LOS "D")
50. Five Points (Oxnard-Saviers-Wooley) (AM/PM LOS "F")
65. Rose Ave & Gonzales Rd (PM LOS "D")
81. Rice Ave & Gonzales Rd (AM/PM LOS "D")

Table 4-2

HIGHWAY 101 ROADWAY SEGMENTS VOLUME-TO-CAPACITY LOS SUMMARY

US 101 Roadway Segment	Direction	No. of Lanes	Lane Design Capacity	Facility Capacity	AM Peak Hour			PM Peak Hour		
					PCE Volume	V/C	LOS	PCE Volume	V/C	LOS
EXISTING										
South of Project Site (Camarillo, JCT. RTE. 34, Lewis Rd. Interchange)	NB	3	2,350	7,050	4,784	.69	B	5,371	.76	C
	SB	3	2,350	7,050	5,799	**.82**	**D***	4,075	.58	A
North of Project Site (Ventura, Victoria Avenue Interchange)	NB	3	2,350	7,050	5,002	.71	C	5,063	.72	C
	SB	3	2,350	7,050	4,587	.65	B	4,453	.63	B
EXISTING PLUS PROJECT										
South of Project Site (Camarillo, JCT. RTE. 34, Lewis Rd. Interchange)	NB	3	2,350	7,050	5,522	.78	C	5,616	.80	C
	SB	3	2,350	7,050	5,966	**.85**	**D***	4,727	.67	B
North of Project Site (Ventura, Victoria Avenue Interchange)	NB	3	2,350	7,050	5,096	.72	C	5,428	.77	C
	SB	3	2,350	7,050	5,057	.72	C	4,609	.65	B

* Exceeds Acceptable LOS “C”

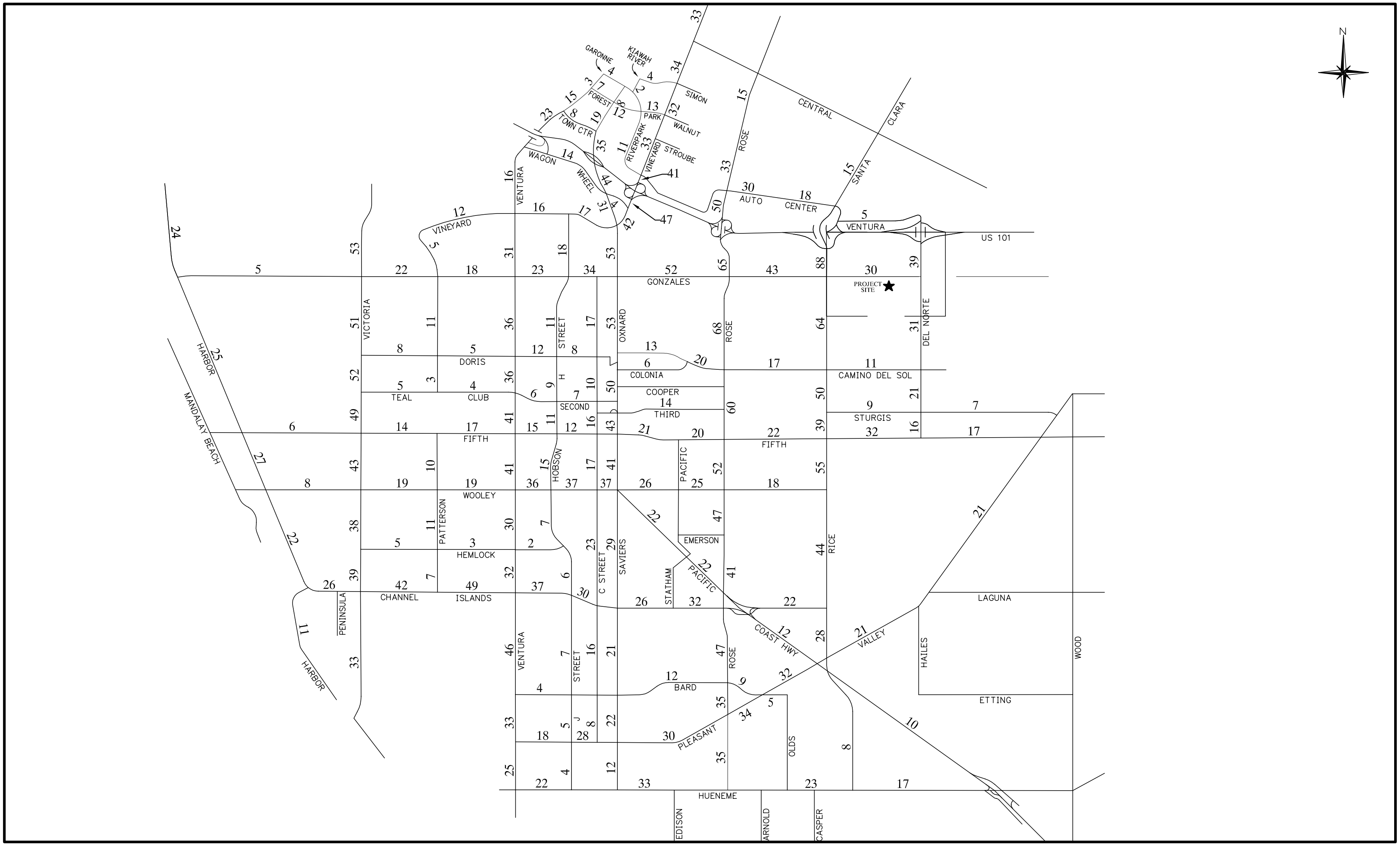
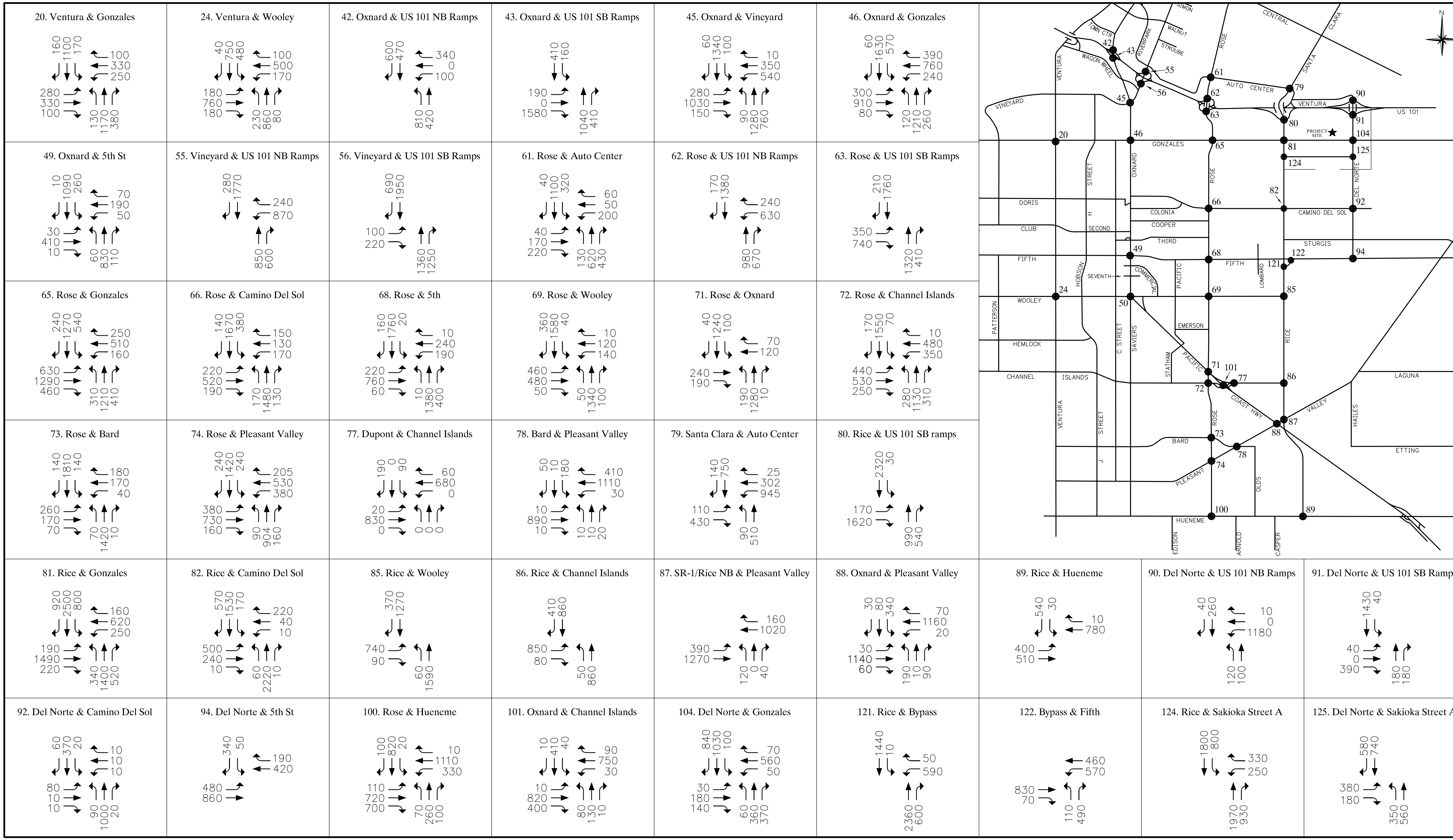


Figure 4-4

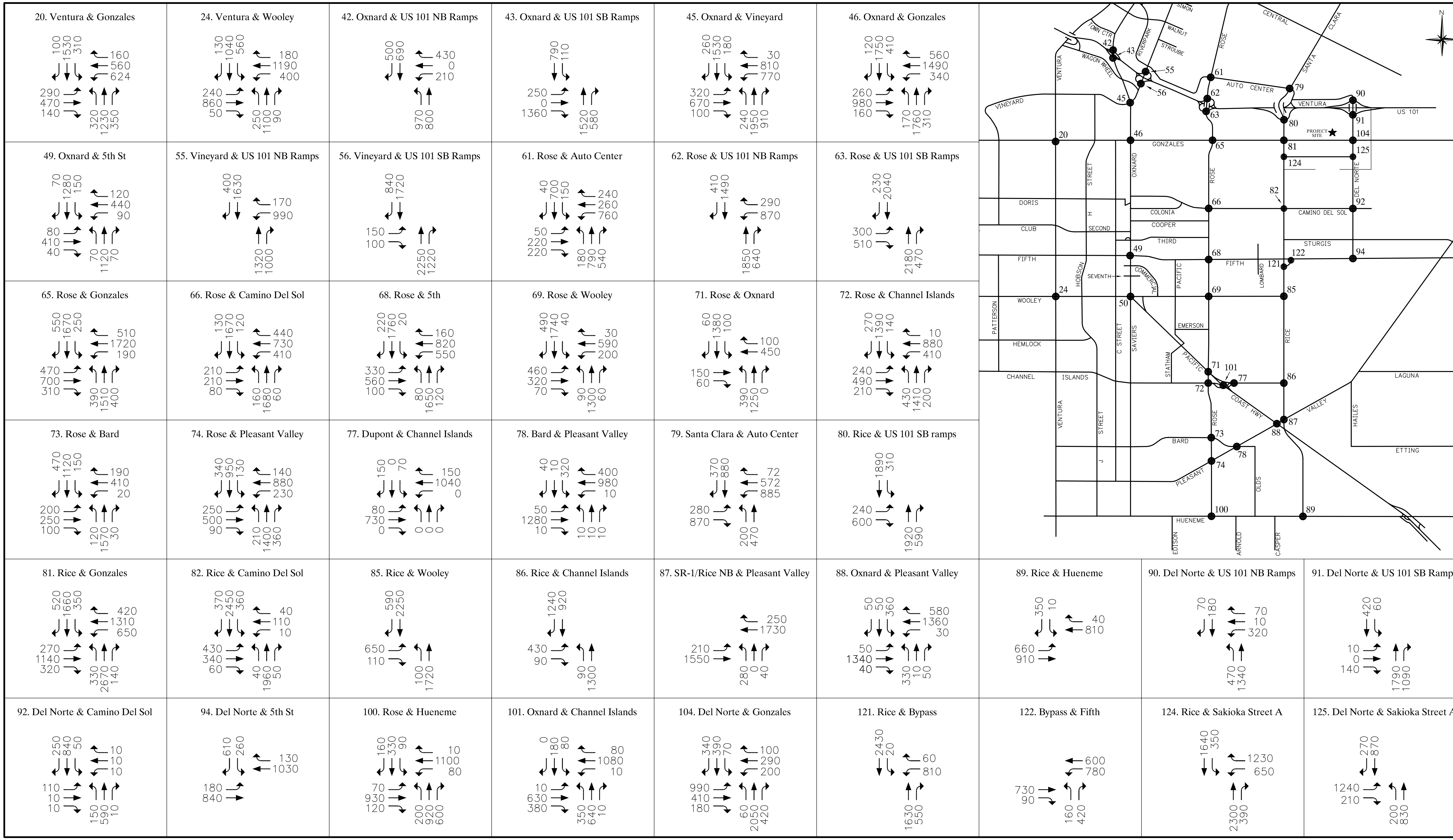
OTM 2030 ADT (000's)



* 50. 5-Points (Oxnard-Saviers-Wooley) SEE APPENDIX

Figure 4-5

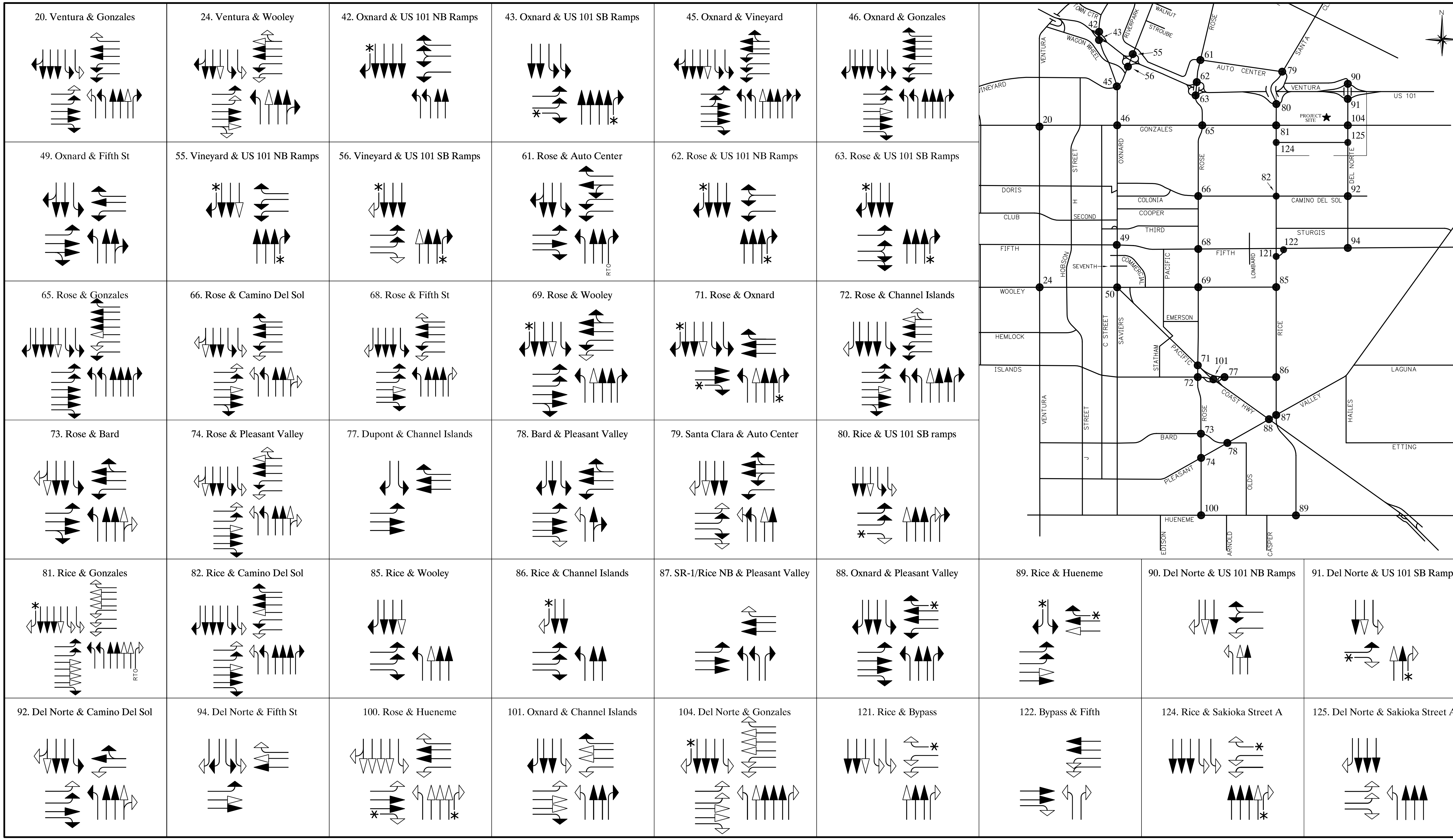
YEAR 2030 OTM
AM PEAK HOUR VOLUMES



* 50. 5-Points (Oxnard-Saviers-Wooley) SEE APPENDIX

Figure 4-6

YEAR 2030 OTM
PM PEAK HOUR VOLUMES



Legend
Existing Lane
Future Lane
RTO Right Turn Overlap
De-facto Right-Turn Lane
* Free Right-Turn Lane

* 50. 5-Points (Oxnard-Saviers-Wooley)SEE APPENDIX

Figure 4-7

FUTURE LANE CONFIGURATIONS

Table 4-3
LEVEL OF SERVICE – YEAR 2030 OTM CONDITIONS

	AM Peak Hour		PM Peak Hour	
Intersection	**ICU**	**HCM**	**ICU**	**HCM**
20. Ventura Rd at Gonzales Rd	.48	--	.77	--
24. Ventura Rd & Wooley Rd	.60	--	.80	--
42. Oxnard Blvd & US 101 NB Ramps	--	18.9 sec	--	17.2 sec
43. Oxnard Blvd & US 101 SB Ramps	--	7.4 sec	--	10.0 sec
45. Oxnard Blvd & Vineyard Ave	.62	27.7 sec	**.88**	**46.4 sec**
46. Oxnard Blvd & Gonzales Rd	.70	29.0 sec	**.89**	**47.2 sec**
49. Oxnard Blvd & Fifth St	.61	24.7 sec	.79	34.2 sec
50. Five-Points (Oxnard-Saviers-Wooley)	--	**197.8 sec**	--	**258.1 sec**
55. Vineyard Ave & US 101 NB Ramps	--	13.3 sec	--	13.0 sec
56. Vineyard Ave & US 101 SB Ramps	--	7.2 sec	--	4.7 sec
61. Rose Ave & Auto Center Dr	.60	--	.69	--
62. Rose Ave & US 101 NB Ramps	--	12.8 sec	--	15.2 sec
63. Rose Ave & US 101 SB Ramps	--	12.1 sec	--	12.9 sec
65. Rose Ave & Gonzales Rd	.74	--	**.81**	--
66. Rose Ave & Camino Del Sol	.66	--	.73	--
68. Rose Ave & Fifth St	.68	--	.78	--
69. Rose Ave & Wooley Rd	.57	--	.75	--
71. Rose Ave & Oxnard Blvd	.46	12.5 sec	.67	19.7 sec
72. Rose Ave & Channel Islands Blvd	.68	--	.70	--
73. Rose Ave & Bard Rd	.72	--	.74	--
74. Rose Ave & Pleasant Valley Rd	.65	--	.70	--
77. Dupont & Channel Islands Blvd	.34	--	.43	--
78. Bard Rd & Pleasant Valley Rd	.62	--	.67	--
79. Santa Clara & Auto Center/NB-101 Off	--	20.9 sec	**--**	33.0 sec
80. Rice Ave & US 101 SB Ramps	--	30.2 sec	--	10.4 sec
81. Rice Ave & Gonzales Rd	**.81**	--	**.88**	--
82. Rice Ave & Camino Del Sol	.77	--	.67	--
85. Rice Ave & Wooley Rd	.56	--	.73	--
86. Rice Ave & Channel Islands Blvd	.57	--	.54	--
87. SR-1/Rice NB & Pleasant Valley Rd	.60	19.2 sec	.76	23.1 sec
88. Oxnard Blvd & Pleasant Valley Rd	.63	24.0 sec	.69	24.7 sec
89. Rice Ave & Hueneme Rd	.39	--	.47	--
90. Del Norte Blvd & US 101 NB Ramps	--	17.3 sec	--	14.3 sec
91. Del Norte Blvd & US 101 SB Ramps	--	4.2 sec	--	5.5 sec
92. Del Norte Blvd & Camino Del Sol	.26	--	.36	--
94. Del Norte Blvd & Fifth St	.45	--	.54	--
100. Rose Ave & Hueneme Rd	.62	--	.63	--
101 Oxnard Blvd & Channel Islands Blvd	.46	15.0 sec	.63	22.0 sec
104. Del Norte Blvd & Gonzales Rd	.38	--	.73	--
121. Rice Ave & Bypass	.67	--	.76	--
122. Bypass & Fifth St	.61	--	.57	--
124. Rice Ave & Sakioka Street	.64	--	.67	--
125. Del Norte Blvd & Sakioka Street	.61	--	.70	--

* State Monitored Intersection (HCM methodology), sec = seconds of delay

Level of service ranges:	ICU	Signalized	Stop Sign Controlled
	.00 - .60 A	0.0 – 10.0 sec A	0.0 – 10.0 sec A
	.61 - .70 B	10.1 – 20.0 sec B	10.01 – 15.0 sec B
	.71 - .80 C	20.1 – 35.0 sec C	15.01 – 25.0 sec C
	.81 - .90 D	35.1 – 55.0 sec D	25.01 – 35.0 sec D
	.91 – 1.00 E	55.1 – 80.0 sec E	35.01 – 50.0 sec E
	Above 1.00 F	Above 80.01 sec F	Above 50.01 sec F

4.1.4 Year 2030 No-Project Conditions

The second comparison analysis for the future is the No-build year 2030 OTM analysis. The 2030 Oxnard Traffic Model without project ADT traffic volumes is shown in Figure 4-8, with the turning movements shown in Figures 4-9 and 4-10. Using the planned future intersection lane geometrics for study intersections, Table 4-4 shows the resulting LOS comparison between the future year 2030 with and without Sakioka Farms. All study intersections would operate at an acceptable level of service without the project, except at the three locations listed below:

45. Oxnard Blvd & Vineyard Ave (PM LOS “D”)
46. Oxnard Blvd & Gonzales Rd (PM LOS “D”)
50. Five Points (Oxnard-Saviers-Wooley) (AM/PM LOS “F”)

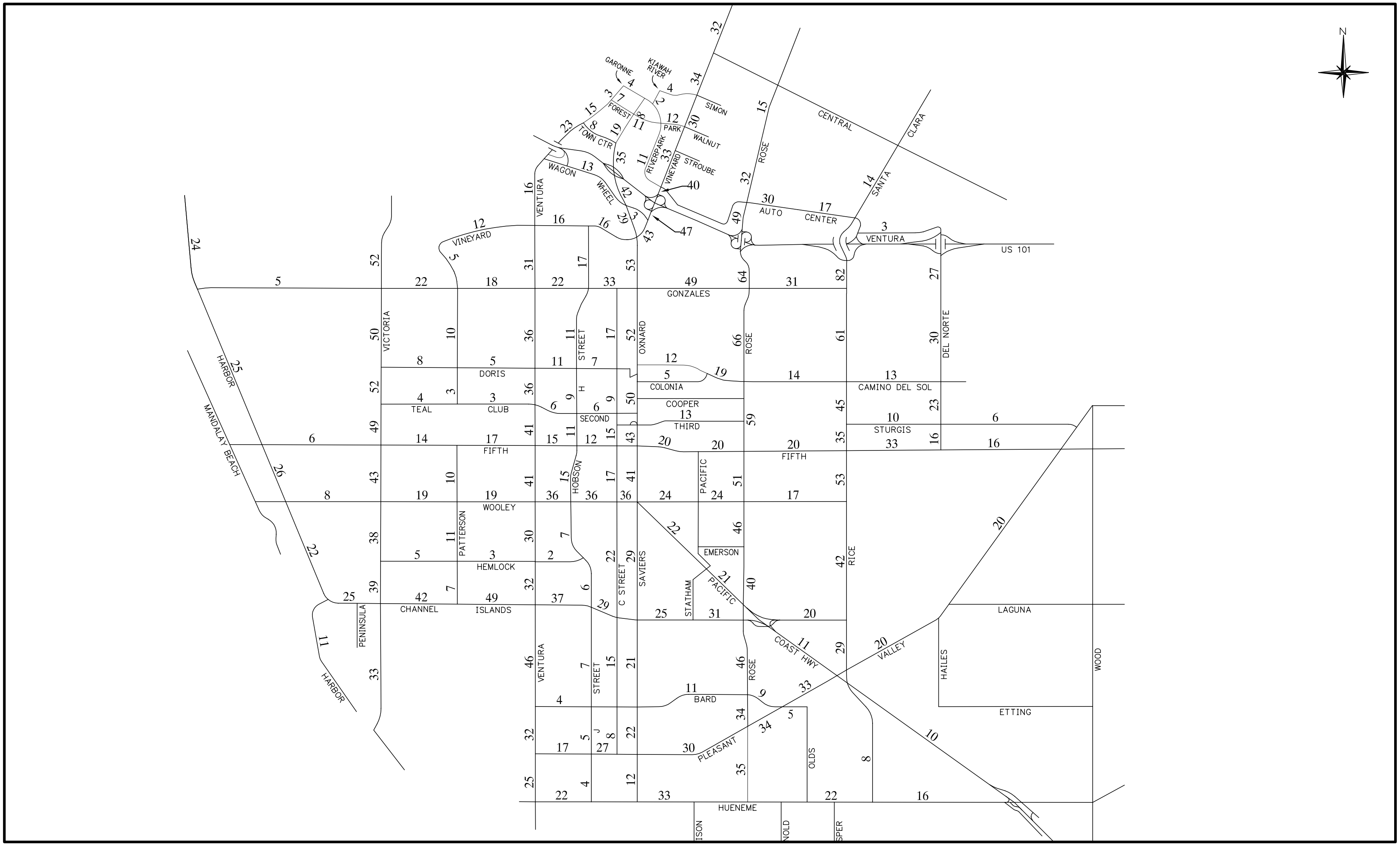


Figure 4-8

OTM 2030 ADT NO SAKIOKA FARMS (000's)

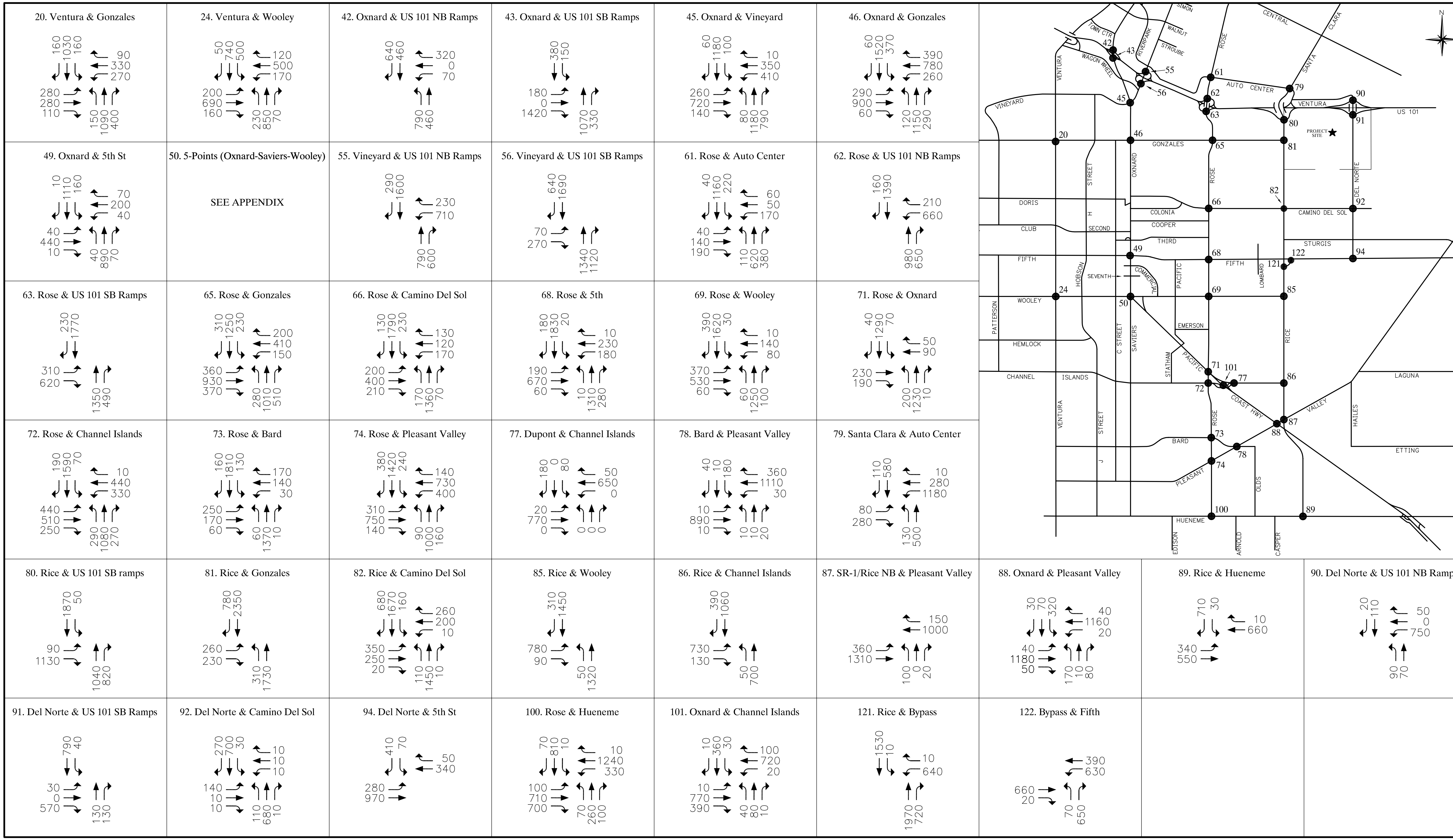


Figure 4-9

YEAR 2030 OTM (NO PROJECT)
AM PEAK HOUR VOLUMES

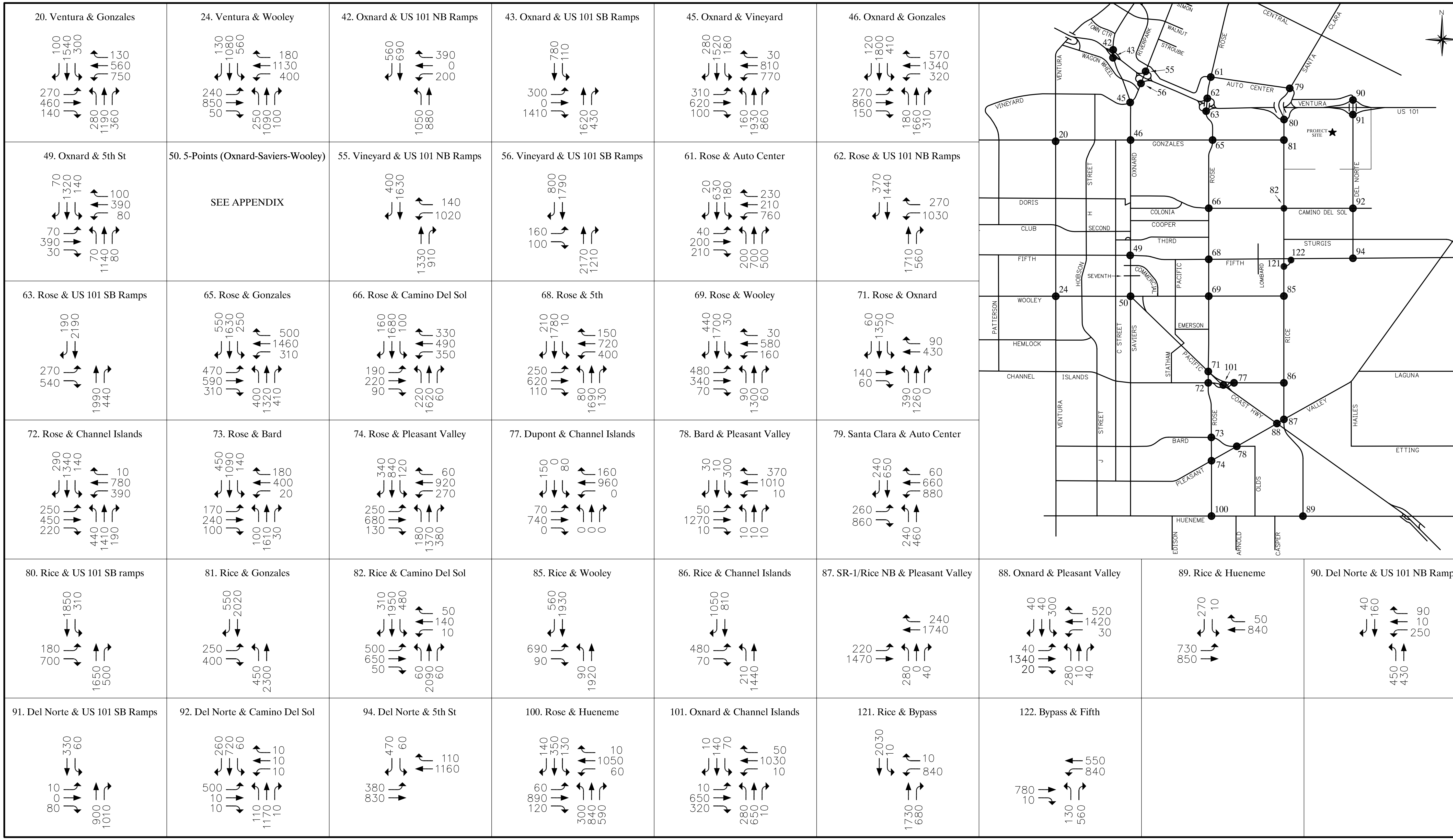


Figure 4-10

YEAR 2030 OTM (NO PROJECT)
PM PEAK HOUR VOLUMES

Table 4-4
LEVEL OF SERVICE – YEAR 2030 COMPARISON

	2030 OTM NO PROJECT				2030 OTM W/PROJECT			
	AM		PM		AM		PM	
Intersection	**ICU**	**HCM**	**ICU**	**HCM**	**ICU**	**HCM**	**ICU**	**HCM**
20. Ventura Rd at Gonzales Rd	.47	--	.78	--	.48	--	.77	--
24. Ventura Rd & Wooley Rd	.58	--	.78	--	.60	--	.80	--
42. Oxnard Blvd & US 101 NB Ramps	--	14.1 sec	--	17.2 sec	--	18.9 sec	--	17.2 sec
43. Oxnard Blvd & US 101 SB Ramps	--	6.5 sec	--	10.9 sec	--	7.4 sec	--	10.0 sec
45. Oxnard Blvd & Vineyard Ave	.54	23.1 sec	**.87**	**44.1 sec**	.62	27.7 sec	**.88**	**46.4 sec**
46. Oxnard Blvd & Gonzales Rd	.63	25.9 sec	**.84**	**42.6 sec**	.70	29.0 sec	**.89**	**47.2 sec**
49. Oxnard Blvd & Fifth St	.57	22.1 sec	.75	31.1 sec	.61	24.7 sec	.79	34.2 sec
50. Five-Points (Oxnard-Saviers-Wooley)	--	**183.5 sec**	--	**253.8 sec**	--	**197.8 sec**	--	**258.1 sec**
55. Vineyard Ave & US 101 NB Ramps	--	11.2 sec	--	13.5 sec	--	13.3 sec	--	13.0 sec
56. Vineyard Ave & US 101 SB Ramps	--	6.3 sec	--	4.6 sec	--	7.2 sec	--	4.7 sec
61. Rose Ave & Auto Center Dr	.59	--	.66	--	.60	--	.69	--
62. Rose Ave & US 101 NB Ramps	--	12.6 sec	--	17.5 sec	--	12.8 sec	--	15.2 sec
63. Rose Ave & US 101 SB Ramps	--	10.5 sec	--	12.7 sec	--	12.1 sec	--	12.9 sec
65. Rose Ave & Gonzales Rd	.59	--	.76	--	.74	--	**.81**	--
66. Rose Ave & Camino Del Sol	.63	--	.66	--	.66	--	.73	--
68. Rose Ave & Fifth St	.66	--	.74	--	.68	--	.78	--
69. Rose Ave & Wooley Rd	.59	--	.75	--	.57	--	.75	--
71. Rose Ave & Oxnard Blvd	.47	12.2 sec	.65	19.1 sec	.46	12.5 sec	.67	19.7 sec
72. Rose Ave & Channel Islands Blvd	.68	--	.68	--	.68	--	.70	--
73. Rose Ave & Bard Rd	.70	--	.72	--	.72	--	.74	--
74. Rose Ave & Pleasant Valley Rd	.70	--	.68	--	.65	--	.70	--
77. Dupont & Channel Islands Blvd	.32	--	.40	--	.34	--	.43	--
78. Bard Rd & Pleasant Valley Rd	.60	--	.66	--	.62	--	.67	--
79. Santa Clara & Auto Center/NB-101 Off	--	23.5 sec	--	31.1 sec	--	20.9 sec	--	33.0 sec
80. Rice Ave & US 101 SB Ramps	--	4.0 sec	--	8.9 sec	--	30.2 sec	--	10.4 sec
81. Rice Ave & Gonzales Rd	.67	--	.80	--	.81	--	**.88**	--
82. Rice Ave & Camino Del Sol	.59	--	.78	--	.77	--	.67	--
85. Rice Ave & Wooley Rd	.57	--	.68	--	.56	--	.73	--
86. Rice Ave & Channel Islands Blvd	.59	--	.60	--	.57	--	.54	--
87. SR-1/Rice NB & Pleasant Valley Rd	.57	17.8 sec	.77	22.9 sec	.60	19.2 sec	.76	23.1 sec
88. Oxnard Blvd & Pleasant Valley Rd	.62	23.7 sec	.66	22.2 sec	.63	24.0 sec	.69	24.7 sec
89. Rice Ave & Hueneme Rd	.34	--	.50	--	.39	--	.47	--
90. Del Norte Blvd & US 101 NB Ramps	--	16.3 sec	--	12.8 sec	--	17.3 sec	--	14.3 sec
91. Del Norte Blvd & US 101 SB Ramps	--	3.2sec	--	3.4 sec	--	4.2 sec	--	5.5 sec
92. Del Norte Blvd & Camino Del Sol	.32	--	.46	--	.26	--	.36	--
94. Del Norte Blvd & Fifth St	.32	--	.62	--	.45	--	.54	--
100. Rose Ave & Hueneme Rd	.63	--	.63	--	.62	--	.63	--
101 Oxnard Blvd & Channel Islands Blvd	.39	12.7 sec	.57	20.0 sec	.46	15.0 sec	.63	22.0 sec
104. Del Norte Blvd & Gonzales Rd	--	--	--	--	.38	--	.73	--
121. Rice Ave & Bypass	.61	--	.68	--	.67	--	.76	--
122. Bypass & Fifth St	.67	--	.65	--	.61	--	.57	--
124. Rice Ave & Sakioka Street	--	--	--	--	.64	--	.67	--
125. Del Norte Blvd & Sakioka Street	--	--	--	--	.61	--	.70	--

sec = seconds of delay

Level of service ranges:

ICU	Signalized	Stop Sign Controlled
.00 - .60 A	0.0 – 10.0 sec A	0.0 – 10.0 sec A
.61 - .70 B	10.1 – 20.0 sec B	10.01 – 15.0 sec B
.71 - .80 C	20.1 – 35.0 sec C	15.01 – 25.0 sec C
.81 - .90 D	35.1 – 55.0 sec D	25.01 – 35.0 sec D
.91 – 1.00 E	55.1 – 80.0 sec E	35.01 – 50.0 sec E
Above 1.00 F	Above 80.01 sec F	Above 50.01 sec F

4.2 PROJECT PHASING, MITIGATION & FUTURE ROADWAY IMPROVEMENTS

The future year 2030 General Plan roadway and intersection configurations are what is required to accommodate the future traffic volumes and at some intersections (shown in Figure 4-7), improvements over the existing City transportation network are needed. Future improvements such as "Sakioka Street" are key access points of the proposed Sakioka Farms development, and as such, the project is fully responsible for these improvements. These improvements will need to be constructed during or prior to the phased development in each planning area. Some project area intersections will not require improvements over the existing lane configurations, but for the locations that do, an impact analysis based on the project development phasing shown in Table 4-5 was be conducted to determine when these future City roadway improvements will be needed.

Table 4-5
SAKIOKA FARMS SPECIFIC PLAN AREA-PHASING TIME LINE

	COMPLETION PERCENTAGE						
	AREA 1	**AREA 2**	**AREA 3**	**AREA 4**	**AREA 5**	**AREA 6**	**AREA 7**
Phase 1 (2010)	25%	25%	25%	25%	33%		
Phase 2 (2015)	50%	50%	75%	50%	66%	25%	
Phase 3 (2020)	75%	75%	100%	75%	100%	50%	25%
Phase 4 (2025)	100%	100%		100%		100%	100%

Sakioka Farms responsibility for future roadway improvements throughout the City in each phase depends on the extent of the project's traffic impact. The City of Oxnard measures an impact by the change in ICU/LOS at intersections attributed to the project. At intersections operating at LOS "C" or worse, if a change in ICU of 0.02 or greater is created by the project, the impact is considered significant and construction of the future improvement(s) needed to mitigate the impact is required. At intersections operating worse than LOS "C" and the project does not have a significant impact, the necessary future improvement(s) needed to bring the intersection back to an acceptable LOS were also identified.

Background traffic volumes at each phase year were calculated assuming straight-line growth from the existing volumes to the 2030 OTM no project volumes. The project volume at each phase was determined from the net difference between the 2030 OTM with project and 2030 OTM no project traffic volumes, and incrementally added based on the percentage of total development complete at each phase. Sections 4.2.1 through 4.2.4 evaluate the projects impact at each development completion phase, and list which future improvements or mitigation might be required (see Appendix C for phase year volumes and LOS calculation sheets).

4.2.1 Opening Year Phase 1 Completion (2010) With Existing Lanes

The Phase 1 completion of the Sakioka Farms development is planned for the end of 2010, when construction improvements to Rice Avenue and Highway 101 interchange will be complete. To evaluate the need for City roadway improvements, an impact analysis will be completed for opening year Phase 1 (Year 2010) with and without the project at 25 intersection locations. At these 25 intersections listed below, existing lane configurations are used.

20. Ventura Rd at Gonzales Rd
24. Ventura Rd & Wooley Rd
45. Oxnard Blvd & Vineyard Ave
46. Oxnard Blvd & Gonzales Rd
55. Vineyard Ave & US 101 NB Ramps
56. Vineyard Ave & US 101 SB Ramps
65. Rose Ave & Gonzales Rd
66. Rose Ave & Camino Del Sol
68. Rose Ave & Fifth St
69. Rose Ave & Wooley Rd
71. Rose Ave & Oxnard Blvd
72. Rose Ave & Channel Islands Blvd
73. Rose Ave & Bard Rd
74. Rose Ave & Pleasant Valley Rd
78. Bard Rd & Pleasant Valley Rd
82. Rice Ave & Camino Del Sol
84. Rice Ave & Fifth St
85. Rice Ave & Wooley Rd
86. Rice Ave & Channel Islands Blvd
87. Rice Ave NB & Pleasant Valley Rd
89. Rice Ave & Hueneme Rd
90. Del Norte Blvd & US 101 NB Ramps
91. Del Norte Blvd & US 101 SB Ramps
92. Del Norte Blvd & Camino Del Sol
94. Del Norte Blvd & Fifth St

Sakioka Farms responsibility for future roadway improvements throughout the City in Phase 1 depends on the extent of the project's traffic impact based on the criteria mentioned in Section 4.2. Table 4-6 contains the opening year Phase 1 impact analysis comparing year 2010 with and without project conditions. The project significantly impacts five project area intersections. The necessary project responsible improvement measures required to mitigate the projects impact back to the no-build ICU V/C at each intersection location is noted Table 4-7 and shown in Figure 4-11. The required mitigation shown in Table 4-7 shall be constructed during or prior to the phased development in each particular planning area.

Table 4-6
PHASE 1 PROJECT IMPACT ANALYSIS

City Intersections	Peak Hour	2010 ICU	2010+Phase 1 ICU	V/C Change	Project Impact	Improvements Needed
20. Ventura Rd at Gonzales Rd	AM	.43	.44	--	--	NO
	PM	.65	.65	--	--	
24. Ventura Rd & Wooley Rd	AM	.68	.67	--	--	NO
	PM	.80	.80	.00	NO	
45. Oxnard Blvd & Vineyard Ave	AM	.59	.62	--	--	NO
	PM	.76	.76	.00	NO	
46. Oxnard Blvd & Gonzales Rd	AM	.63	.65	--	--	NO
	PM	.76	.77	+ .01	NO	
65. Rose Ave & Gonzales Rd	AM	.61	.67	--	--	**YES**
	PM	**.84**	**.86**	**+ .02**	**YES**	
66. Rose Ave & Camino Del Sol	AM	.72	.75	**+ .03**	**YES**	**YES**
	PM	.74	.76	**+ .02**	**YES**	
68. Rose Ave & Fifth St	AM	.68	.69	--	--	NO
	PM	.71	.72	+ .01	NO	
69. Rose Ave & Wooley Rd	AM	.50	.52	--	--	NO
	PM	.67	.67	--	--	
71. Rose Ave & Oxnard Blvd	AM	.40	.39	--	--	NO
	PM	.66	.66	--	--	
72. Rose Ave & Channel Islands Blvd	AM	.53	.53	--	--	NO
	PM	.57	.57	--	--	
73. Rose Ave & Bard Rd	AM	.56	.57	--	--	NO
	PM	.48	.49	--	--	
74. Rose Ave & Pleasant Valley Rd	AM	.47	.46	--	--	NO
	PM	.52	.51	--	--	
78. Bard Rd & Pleasant Valley Rd	AM	.43	.43	--	--	NO
	PM	.55	.55	--	--	
82. Rice Ave & Camino Del Sol	AM	.45	.50	--	--	NO
	PM	.57	.57	--	--	
84. Rice Ave & Fifth St (Year 2030 #121/122)	AM	.59	.63	--	--	**YES**
	PM	.79	**.82**	**+ .03**	**YES**	
85. Rice Ave & Wooley Rd	AM	.50	.58	--	--	NO
	PM	.61	.63	--	--	
86. Rice Ave & Channel Islands Blvd	AM	.42	.41	--	--	NO
	PM	.66	.67	--	--	
87. SR-1/Rice NB & Pleasant Valley Rd	AM	.46	.47	--	--	NO
	PM	.74	.74	.00	NO	
89. Rice Ave & Hueneme Rd	AM	.31	.34	--	--	NO
	PM	.51	.51	--	--	
92. Del Norte Blvd & Camino Del Sol	AM	.29	.28	--	--	NO
	PM	.43	.38	--	--	
94. Del Norte Blvd & Fifth St	AM	.48	.45	--	--	NO
	PM	.67	.66	--	--	
Caltrans Intersections	Peak Hour	**2010 HCM**	**2010+Phase 1 HCM**	**Delay Change**	**Project Impact**	**Improvements Needed**
55. Vineyard Ave & US 101 NB Ramps	AM	9.7 sec	10.2 sec	--	--	NO
	PM	12.8 sec	12.8 sec	--	--	
56. Vineyard Ave & US 101 SB Ramps	AM	7.6 sec	7.6 sec	--	--	NO
	PM	7.5 sec	7.9 sec	--	--	
90. Del Norte Blvd & US 101 NB Ramps*	AM	27.7 sec	58.3 sec	**+ 30.6 sec**	**YES**	**YES**
	PM	23.1 sec	81.7 sec	**+ 58.6 sec**	**YES**	
91. Del Norte Blvd & US 101 SB Ramps*	AM	75.6 sec	198.8 sec	**+123.2 sec**	**YES**	**YES**
	PM	214.8 sec	354.0 sec	**+ 139.2 sec**	**YES**	

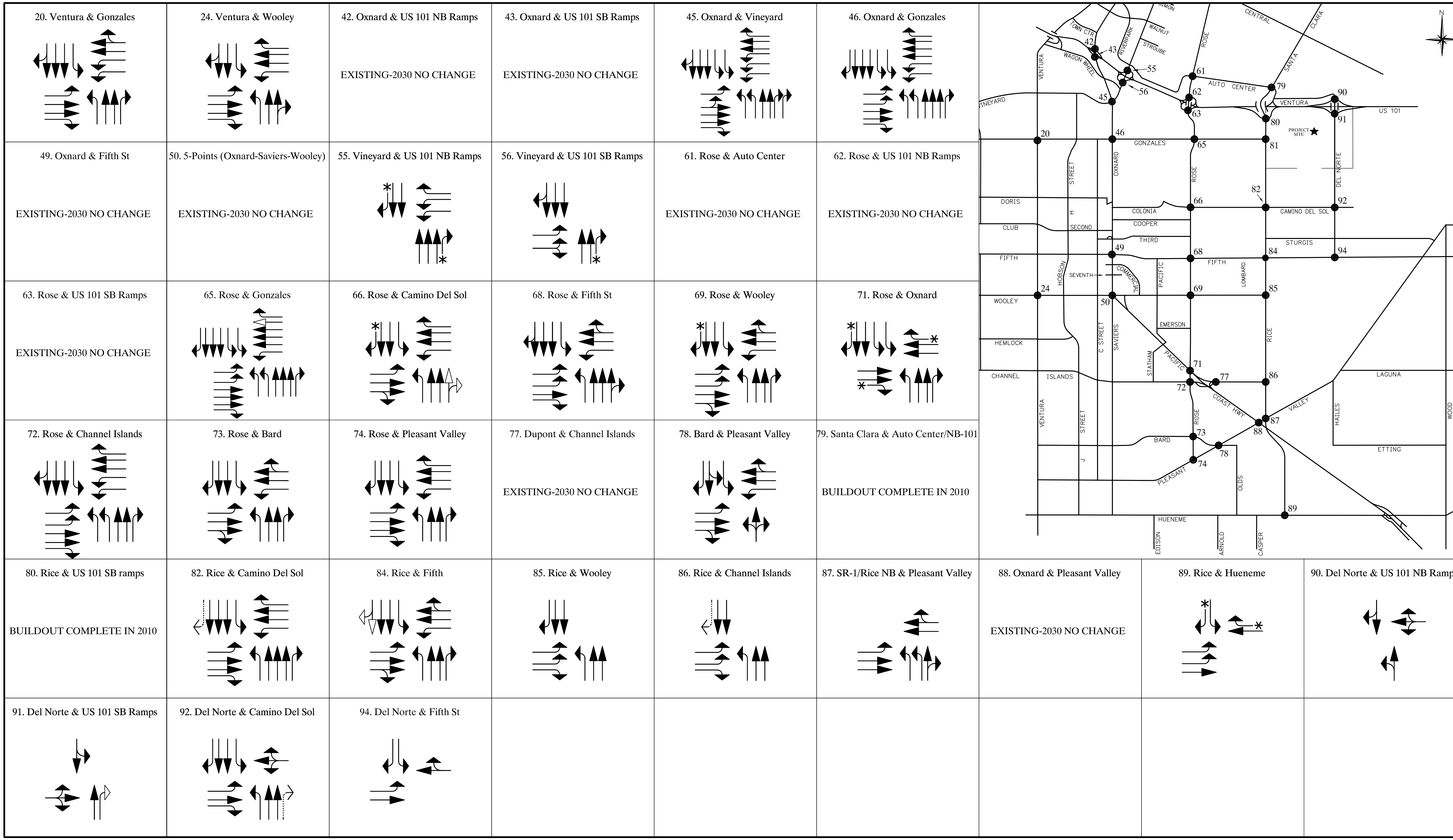
*All Way Stop Sign Control

Table 4-7
PHASE 1 (2010) IMPROVEMENT MEASURES

INTERSECTION	IMPROVEMENTS	Year 2010 No Project		Year 2010 W/Phase 1 (Mitigation)	
		AM PEAK HOUR	PM PEAK HOUR	AM PEAK HOUR	PM PEAK HOUR
		ICU/HCM	ICU/HCM	ICU/HCM	ICU/HCM
SIGNIFICANT PROJECT IMPACT MITIGATION INTERSECTIONS					
65. Rose Ave & Gonzales Rd	Incorporate 4th westbound thru lane	.61	.84	.65	.79
66. Rose Ave & Camino Del Sol	Incorporate 3rd northbound thru lane by removing existing northbound right-turn lane	.72	.74	.69	.72
84. Rice Ave & Fifth St	Incorporate 3rd southbound thru lane by removing existing southbound right-turn lane	.59	.79	.63	.71
90. Del Norte Blvd & US 101 NB Ramps*	Signalization	27.7 sec*	23.1 sec*	19.4 sec	19.5 sec
91. Del Norte Blvd & US 101 SB Ramps*	Signalization Add northbound right turn lane	75.6 sec*	214.8 sec*	13.9 sec	5.3 sec

sec = seconds of delay
*All Way Stop Sign Control
Level of service ranges:

ICU	Signalized	Stop Sign Controlled
.00 - .60 A	0.0 – 10.0 sec A	0.0 – 10.0 sec A
.61 - .70 B	10.1 – 20.0 sec B	10.01 – 15.0 sec B
.71 - .80 C	20.1 – 35.0 sec C	15.01 – 25.0 sec C
.81 - .90 D	35.1 – 55.0 sec D	25.01 – 35.0 sec D
.91 – 1.00 E	55.1 – 80.0 sec E	35.01 – 50.0 sec E
Above 1.00 F	Above 80.01 sec F	Above 50.01 sec F



Legend
Existing Lane
Future Lane Improvement
RTO Right Turn Overlap
De-facto Right-Turn Lane
* Free Right-Turn Lane

Figure 4-11

PHASE 1 (YEAR 2010)
REQUIRED MITIGATION/IMPROVEMENTS

4.2.2 Phase 2 Completion (2015) With Existing Lanes Plus Phase 1 Mitigation

The Phase 2 completion of the Sakioka Farms development is planned for the end of 2015. To evaluate the need for City roadway improvements, an impact analysis was completed for Phase 2 (Year 2015) with and without the project at the same intersection locations. For year 2015, the lane configurations shown in Figure 4-11 are assumed at the selected locations.

Shown in Table 4-8 is the opening year Phase 2 impact analysis comparing year 2015 with and without project conditions. Future roadway improvements throughout the City required in Phase 2 (Year 2015) of development include nine project area intersections. The project significantly impacts eight intersections where mitigation will be required. The project does not create a significant impact at Oxnard Boulevard and Vineyard Avenue intersection, but it operates at an unacceptable LOS and will need improvements. The necessary improvements required to mitigate the projects impact and/or improve deficient intersection locations is covered in Table 4-9 and Figure 4-12.

As shown in Table 4-9 and Figure 4-12, at the locations of Oxnard Boulevard and Gonzales Road, Rice Avenue and Channel Islands Boulevard, Del Norte Boulevard and US 101 Northbound Ramps, and Del Norte Boulevard and US 101 Southbound Ramps, full 2030 OTM buildout lane configurations are achieved with the required project mitigation. The required project mitigation shall be constructed during or prior to the phased development in each particular planning area. For all non-project impact intersection improvements, the project shall be responsible for fair-share cost of the construction, which will be paid through the project's participation in the City of Oxnard's Circulation System Improvement Fee Program.

Table 4-8
PHASE 2 PROJECT IMPACT ANALYSIS

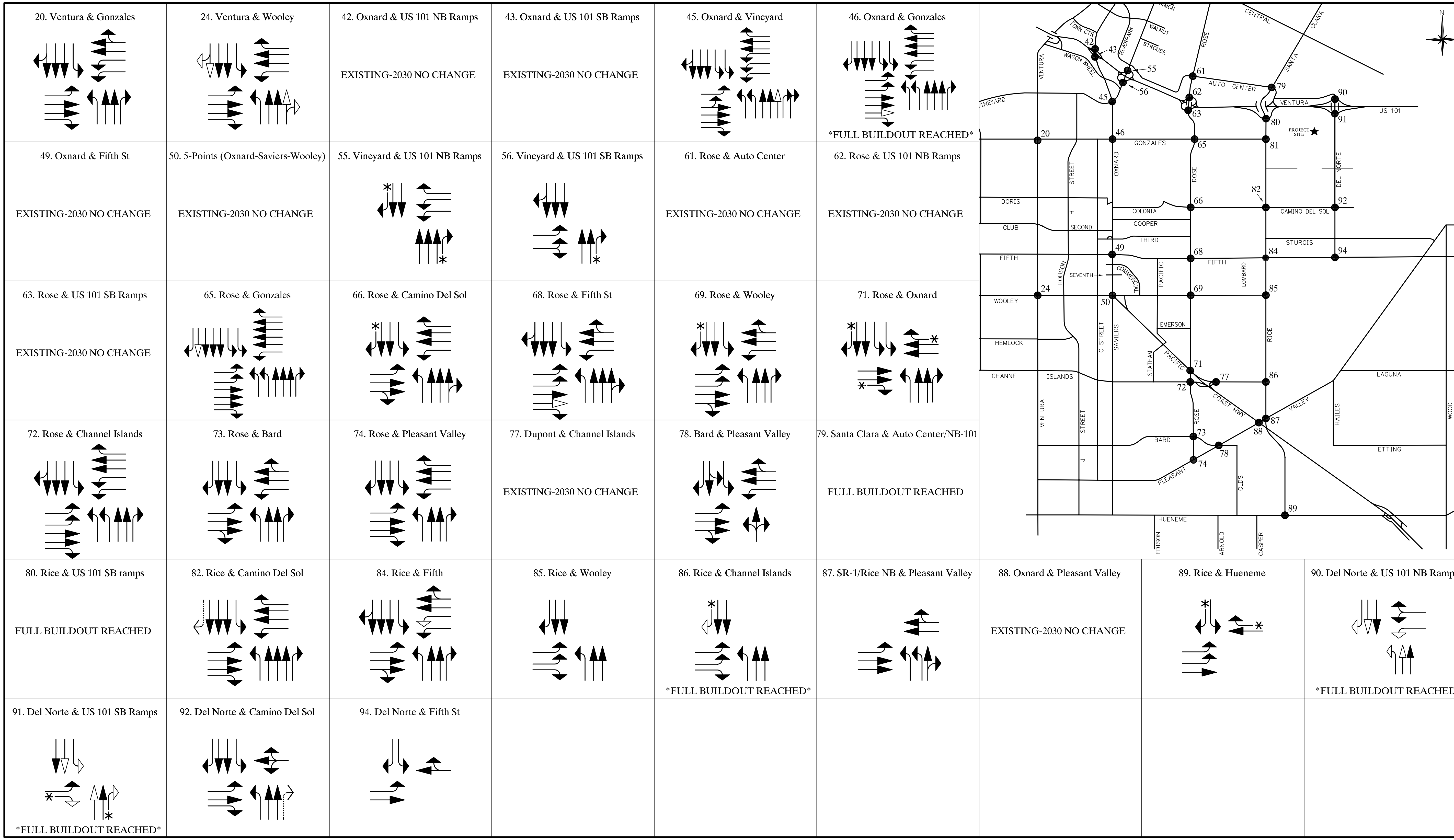
City Intersections	Peak Hour	2015 ICU	2015+Phase 2 ICU	V/C Change	Project Impact	Improvements Needed
20. Ventura Rd at Gonzales Rd	AM	.52	.53	--	--	NO
	PM	.72	.71	- .01	NO	
24. Ventura Rd & Wooley Rd	AM	.73	.75	**+ .02**	**YES**	**YES**
	PM	**.90**	**.91**	+. 01	NO	
45. Oxnard Blvd & Vineyard Ave	AM	.61	.66	--	--	**YES**
	PM	**.84**	**.85**	+ .01	NO	
46. Oxnard Blvd & Gonzales Rd	AM	.65	.69	--	--	**YES**
	PM	.77	**.81**	**+ .04**	**YES**	
65. Rose Ave & Gonzales Rd	AM	.57	.69	--	--	**YES**
	PM	.80	**.82**	**+ .02**	**YES**	
66. Rose Ave & Camino Del Sol	AM	.76	.76	+ .00	NO	NO
	PM	.78	.78	+ .00	NO	
68. Rose Ave & Fifth St	AM	.74	.78	**+ .04**	**YES**	**YES**
	PM	.79	**.82**	**+ .03**	**YES**	
69. Rose Ave & Wooley Rd	AM	.57	.57	--	--	NO
	PM	.73	.72	- .01	NO	
71. Rose Ave & Oxnard Blvd	AM	.44	.44	--	--	NO
	PM	.69	.70	--	--	
72. Rose Ave & Channel Islands Blvd	AM	.56	.57	--	--	NO
	PM	.62	.64	--	--	
73. Rose Ave & Bard Rd	AM	.61	.62	--	--	NO
	PM	.55	.57	--	--	
74. Rose Ave & Pleasant Valley Rd	AM	.56	.55	--	--	NO
	PM	.62	.62	--	--	
78. Bard Rd & Pleasant Valley Rd	AM	.45	.46	--	--	NO
	PM	.56	.56	--	--	
82. Rice Ave & Camino Del Sol	AM	.50	.61	--	--	NO
	PM	.66	.65	--	--	
84. Rice Ave & Fifth St (Year 2030 #121/122)	AM	.75	**.83**	**+ .08**	**YES**	**YES**
	PM	**.83**	**.86**	**+ .03**	**YES**	
85. Rice Ave & Wooley Rd	AM	.54	.71	--	--	NO
	PM	.67	.73	--	--	
86. Rice Ave & Channel Islands Blvd	AM	.46	.45	--	--	**YES**
	PM	.71	.73	**+ .02**	**YES**	
87. SR-1/Rice NB & Pleasant Valley Rd	AM	.50	.52	--	--	NO
	PM	.76	.76	+ .00	NO	
89. Rice Ave & Hueneme Rd	AM	.37	.42	--	--	NO
	PM	.57	.55	--	--	
92. Del Norte Blvd & Camino Del Sol	AM	.32	.31	--	--	NO
	PM	.48	.37	--	--	
94. Del Norte Blvd & Fifth St	AM	.51	.52	--	--	NO
	PM	.78	.78	+ .00	NO	
Caltrans Intersections	Peak Hour	**2015 HCM**	**2015+Phase 2 HCM**	**Delay Change**	**Project Impact**	**Improvements Needed**
55. Vineyard Ave & US 101 NB Ramps	AM	9.8 sec	11.0 sec	--	--	NO
	PM	14.8 sec	13.2 sec	--	--	
56. Vineyard Ave & US 101 SB Ramps	AM	7.5 sec	7.7 sec	--	--	NO
	PM	7.3 sec	7.5 sec	--	--	
90. Del Norte Blvd & US 101 NB Ramps	AM	20.5 sec	21.1 sec	+ 0.6 sec	NO	**YES**
	PM	16.5 sec	70.7 sec	**+ 54.2 sec**	**YES**	
91. Del Norte Blvd & US 101 SB Ramps	AM	13.5 sec	66.0 sec	**+ 52.5 sec**	**YES**	**YES**
	PM	4.8 sec	8.2 sec	**--**	**--**	

Table 4-9
PHASE 2 (2015) IMPROVEMENT MEASURES

INTERSECTION	IMPROVEMNTS	Year 2015 No Project		Year 2015 W/Phase 2 (Mitigation)	
		AM PEAK HOUR	PM PEAK HOUR	AM PEAK HOUR	PM PEAK HOUR
		ICU/HCM	ICU/HCM	ICU/HCM	ICU/HCM
SIGNIFICANT PROJECT IMPACT MITIGATION INTERSECTIONS					
24. Ventura Rd & Wooley Rd	Incorporate 3rd northbound & southbound thru lanes	.73	**.90**	.64	.79
46. Oxnard Blvd & Gonzales Rd	Incorporate 3rd eastbound thru lane-**Full Buildout Reached**	.65	.77	.59	.72
65. Rose Ave & Gonzales Rd	Incorporate 4th southbound thru lane	.69	**.82**	.69	.75
68. Rose Ave & Fifth St	Incorporate 2nd eastbound thru lane	.74	.79	.61	.71
84. Rice Ave & Fifth St	Incorporate 2nd westbound left turn lane	.75	**.83**	.76	.73
86. Rice Ave & Channel Islands Blvd	Change southbound defacto right-turn lane to a free right-turn lane-**Full Buildout Reached**	.46	.71	.45	.51
90. Del Norte Blvd & US 101 NB Ramps	Construct remainder of Interchange Improvements-**Full Buildout Reached**	20.5 sec	16.5 sec	12.4 sec	11.4 sec
91. Del Norte Blvd & US 101 SB Ramps	Construct remainder of Interchange Improvements-**Full Buildout Reached**	13.5 sec	4.8 sec	1.8 sec	3.3 sec
NO SIGNIFICANT PROJECT IMPACT INTERSECTIONS-IMPROVEMENTS NEEDED					
45. Oxnard Blvd & Vineyard Ave	Incorporate 3rd northbound thru lane	.61	**.84**	.61	.80

sec = seconds of delay

Level of service ranges:	ICU	Signalized
	.00 - .60 A	0.0 – 10.0 sec A
	.61 - .70 B	10.1 – 20.0 sec B
	.71 - .80 C	20.1 – 35.0 sec C
	.81 - .90 D	35.1 – 55.0 sec D
	.91 – 1.00 E	55.1 – 80.0 sec E
	Above 1.00 F	



Legend

- Existing Lane
- Future Lane Improvement
- RTO Right Turn Overlap
- De-facto Right-Turn Lane
- Free Right-Turn Lane

Figure 4-12

PHASE 2 (YEAR 2015)
REQUIRED MITIGATION/IMPROVEMENTS

4.2.3 Phase 3 Completion (2020) With Existing Lanes Plus Phase 1&2 Mitigation

The Phase 3 completion of the Sakioka Farms development is planned for the end of 2020. To evaluate the need of what/any 2030 OTM buildout City roadway improvements are needed, an impact analysis was completed for Phase 3 (Year 2020) with and without the project. For year 2020, the lane configurations shown in Figure 4-12 are assumed at the remaining intersection locations.

Shown in Table 4-10 is the Phase 3 impact analysis comparing year 2020 with and without project conditions. Future roadway improvements throughout the City required in Phase 3 (Year 2020) of development include eight project area intersections. The project significantly impacts five intersections where mitigation will be required. The project does not significantly impact the intersections of Ventura Avenue and Wooley Road, Rose Avenue and Camino Del Sol, and Del Norte Boulevard and Fifth Street, but these locations perform at unacceptable LOS and will need improvements. The necessary improvements required to mitigate the projects impact and/or improve deficient intersection locations is covered in Table 4-11 and Figure 4-13.

As shown in Table 4-11 and Figure 4-13, at the locations of Oxnard Boulevard and Vineyard Avenue, Rose Avenue and Gonzales Road, Rice Avenue and Fifth Street (Bypass), and Rice Avenue and Wooley Road, full 2030 OTM buildout lane configurations are achieved with the required project mitigation. The required project mitigation shall be constructed during or prior to the phased development in each particular planning area. For all non-project impact intersection improvements, the project shall be responsible for fair-share cost of the construction, which will be paid through the project's participation in the City of Oxnard's Circulation System Improvement Fee Program.

Table 4-10
PHASE 3 PROJECT IMPACT ANALYSIS

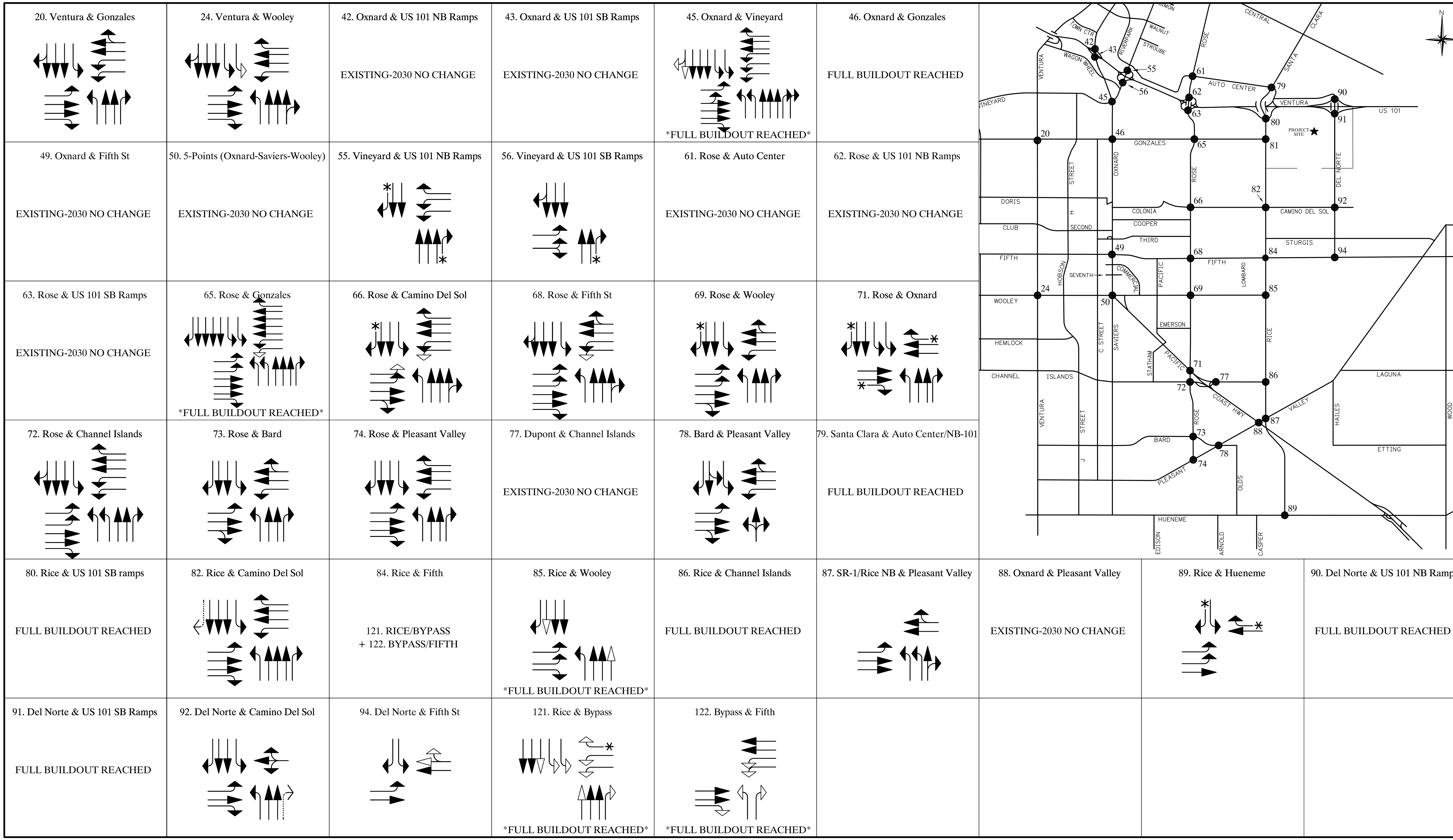
City Intersections	Peak Hour	2020 ICU	2020+Phase 3 ICU	V/C Change	Project Impact	Improvements Needed
20. Ventura Rd at Gonzales Rd	AM	.59	.61	--	--	NO
	PM	.78	.79	- .01	NO	
24. Ventura Rd & Wooley Rd	AM	.69	.70	--	--	**YES**
	PM	**.89**	**.90**	+ .01	NO	
45. Oxnard Blvd & Vineyard Ave	AM	.56	.64	--	--	**YES**
	PM	.80	**.83**	**+ .03**	**YES**	
65. Rose Ave & Gonzales Rd	AM	.56	.75	--	--	**YES**
	PM	.72	.77	**+ .05**	**YES**	
66. Rose Ave & Camino Del Sol	AM	**.82**	**.81**	- .01	NO	**YES**
	PM	**.84**	**.85**	+ .01	NO	
68. Rose Ave & Fifth St	AM	.64	.65	--	--	**YES**
	PM	.75	.80	**+ .05**	**YES**	
69. Rose Ave & Wooley Rd	AM	.65	.64	--	--	NO
	PM	.80	.80	+ .00	NO	
71. Rose Ave & Oxnard Blvd	AM	.49	.49			NO
	PM	.73	.73	+ .00	NO	
72. Rose Ave & Channel Islands Blvd	AM	.59	.60	--	--	NO
	PM	.70	.73	--	--	
73. Rose Ave & Bard Rd	AM	.65	.70	--	--	NO
	PM	.67	.67	--	--	
74. Rose Ave & Pleasant Valley Rd	AM	.67	.66	--	--	NO
	PM	.72	.73	+ .01	NO	
78. Bard Rd & Pleasant Valley Rd	AM	.50	.51	--	--	NO
	PM	.56	.56	--	--	
82. Rice Ave & Camino Del Sol	AM	.56	.74	--	--	NO
	PM	.80	.72	- .08	NO	
84. Rice Ave & Fifth St (Year 2030 #121/122)	AM	.78	**.91**	**+ .13**	**YES**	**YES**
	PM	**.82**	**.85**	**+ .03**	**YES**	
85. Rice Ave & Wooley Rd	AM	.58	**.83**	**+ .25**	**YES**	**YES**
	PM	.75	**.82**	**+ .07**	**YES**	
87. SR-1/Rice NB & Pleasant Valley Rd	AM	.54	.58	--	--	NO
	PM	.79	.79	+ .00	NO	
89. Rice Ave & Hueneme Rd	AM	.41	.50	--	--	NO
	PM	.63	.61	--	--	
92. Del Norte Blvd & Camino Del Sol	AM	.34	.34	--	--	NO
	PM	.57	.38	--	--	
94. Del Norte Blvd & Fifth St	AM	.56	.61	--	--	**YES**
	PM	**.91**	**.89**	- .02	NO	
Caltrans Intersections	Peak Hour	**2020 HCM**	**2020+Phase 3 HCM**	**Delay Change**	**Project Impact**	**Improvements Needed**
55. Vineyard Ave & US 101 NB Ramps	AM	9.8 sec	11.3 sec	--	--	NO
	PM	14.6 sec	14.2 sec	--	--	
56. Vineyard Ave & US 101 SB Ramps	AM	7.9 sec	7.5 sec	--	--	NO
	PM	7.3 sec	7.3 sec	--	--	

Table 4-11
PHASE 3 (2020) IMPROVEMENT MEASURES

INTERSECTION	IMPROVEMENTS	Year 2020 No Project		Year 2020 W/Phase 3 (Mitigation)	
		AM PEAK HOUR ICU/HCM	PM PEAK HOUR ICU/HCM	AM PEAK HOUR ICU/HCM	PM PEAK HOUR ICU/HCM
SIGNIFICANT PROJECT IMPACT MITIGATION INTERSECTIONS					
45. Oxnard Blvd & Vineyard Ave	Incorporate 4th southbound thru lane-**Full Buildout Reached**	.56	.80	.61	.79
65. Rose Ave & Gonzales Rd	Incorporate 2nd westbound left turn lane-**Full Buildout Reached**	.56	.72	.75	.77
68. Rose Ave & Fifth St	Incorporate 2nd westbound left turn lane	.64	.75	.60	.77
84. Rice Ave & Fifth St (#121/122)	Complete grade separation/bypass (121 & 122)-**Full Buildout Reached**	.78	**.82**	.38	.43
		--	--	.31	.31
85. Rice Ave & Wooley Rd	Incorporate 3rd northbound & southbound thru lanes – **Full Buildout Reached**	.58	.75	.64	.62
NO SIGNIFICANT PROJECT IMPACT INTERSECTIONS-IMPROVEMENTS NEEDED					
24. Ventura Rd & Wooley Rd	Incorporate 2nd southbound left turn lane	.59	.78	.60	.78
66. Rose Ave & Camino Del Sol	Incorporate 2nd eastbound & westbound left turn lanes	**.82**	**.84**	.76	.80
94. Del Norte Blvd & Fifth St	Incorporate 2nd westbound thru lane	.56	**.91**	.49	.60

sec = seconds of delay

Level of service ranges:	ICU	Signalized
	.00 - .60 A	0.0 – 10.0 sec A
	.61 - .70 B	10.1 – 20.0 sec B
	.71 - .80 C	20.1 – 35.0 sec C
	.81 - .90 D	35.1 – 55.0 sec D
	.91 – 1.00 E	55.1 – 80.0 sec E
	Above 1.00 F	



Legend
- Existing Lane
- Future Lane Improvement
- RTO Right Turn Overlap
- De-facto Right-Turn Lane
- * Free Right-Turn Lane

Figure 4-13

PHASE 3 (YEAR 2020)
REQUIRED MITIGATION/IMPROVEMENTS

4.2.4 Phase 4 Completion (2025) With Existing Lanes Plus Phase 1,2, & 3 Mitigation

The full buildout Phase 4 completion of the Sakioka Farms development is planned for the end of 2025. To evaluate the need of what/any 2030 OTM buildout City roadway improvements are needed, an impact analysis was completed for Phase 4 (Year 2025) with and without the project. For year 2025, the lane configurations shown in Figure 4-13 are assumed at the remaining intersection locations.

Shown in Table 4-12 is the Phase 4 impact analysis comparing Year 2025 with and without project conditions. Future roadway improvements throughout the City required in Phase 4 (Year 2025) of development include ten project area intersections. The project significantly impacts seven intersections which mitigations will be required. The project does not significantly impact the intersections of Rose Avenue and Wooley Road, Rose Avenue and Pleasant Valley Road, and SR-1/Rice Avenue Northbound Ramp and Pleasant Valley Road, but these locations perform at unacceptable LOS and will need improvements. The necessary improvements required to mitigate the projects impact and/or improve deficient intersection locations is covered in Table 4-13 and Figure 4-14. The required project mitigation shall be constructed during or prior to the phased development in each particular planning area. For all non-project impact intersection improvements, the project shall be responsible for fair-share cost of the construction, which will be paid through the project's participation in the City of Oxnard's Circulation System Improvement Fee Program.

Table 4-12
PHASE 4 PROJECT IMPACT ANALYSIS

City Intersections	Peak Hour	2025 ICU	2025+Phase 4 ICU	V/C Change	Project Impact	Improvements Needed
20. Ventura Rd at Gonzales Rd	AM	.67	.70	--	--	**YES**
	PM	**.85**	**.89**	**+ .04**	**YES**	
24. Ventura Rd & Wooley Rd	AM	.63	.64	--	--	**YES**
	PM	**.85**	**.87**	**+ .02**	**YES**	
66. Rose Ave & Camino Del Sol	AM	**.84**	**.84**	+ .00	NO	**YES**
	PM	**.82**	**.86**	**+ .04**	**YES**	
68. Rose Ave & Fifth St	AM	.64	.66	--	--	**YES**
	PM	.77	**.83**	**+ .06**	**YES**	
69. Rose Ave & Wooley Rd	AM	.71	.72	+ .01	NO	**YES**
	PM	**.86**	**.87**	+ .01	NO	
71. Rose Ave & Oxnard Blvd	AM	.55	.53	--	--	NO
	PM	.77	.78	+ .01	NO	
72. Rose Ave & Channel Islands Blvd	AM	.66	.67	--	--	**YES**
	PM	.77	.80	**+ .03**	**YES**	
73. Rose Ave & Bard Rd	AM	.72	.76	**+ .04**	**YES**	**YES**
	PM	.77	.79	+ .02	YES	
74. Rose Ave & Pleasant Valley Rd	AM	**.83**	.80	- .03	NO	**YES**
	PM	**.84**	**.84**	+ .00	NO	
78. Bard Rd & Pleasant Valley Rd	AM	.52	.53	--	--	NO
	PM	.58	.58	--	--	
82. Rice Ave & Camino Del Sol	AM	.64	**.85**	**+ .19**	**YES**	**YES**
	PM	**.95**	.79	- 0.16	NO	
87. SR-1/Rice NB & Pleasant Valley Rd	AM	.57	.61	--	--	**YES**
	PM	**.83**	**.82**	- .01	NO	
89. Rice Ave & Hueneme Rd	AM	.48	.57	--	--	NO
	PM	.70	.66	--	--	
92. Del Norte Blvd & Camino Del Sol	AM	.37	.38	--	--	NO
	PM	.65	.38	--	--	
94. Del Norte Blvd & Fifth St	AM	.60	.52	--	--	NO
	PM	.66	.70	--	--	
Caltrans Intersections	Peak Hour	**2025 HCM**	**2025+Phase 4 HCM**	**Delay Change**	**Project Impact**	**Improvements Needed**
55. Vineyard Ave & US 101 NB Ramps	AM	10.1 sec	12.0 sec	--	--	NO
	PM	16.4 sec	15.8 sec	--	--	
56. Vineyard Ave & US 101 SB Ramps	AM	8.9 sec	8.8 sec	--	--	NO
	PM	7.4 sec	7.4 sec	--	--	

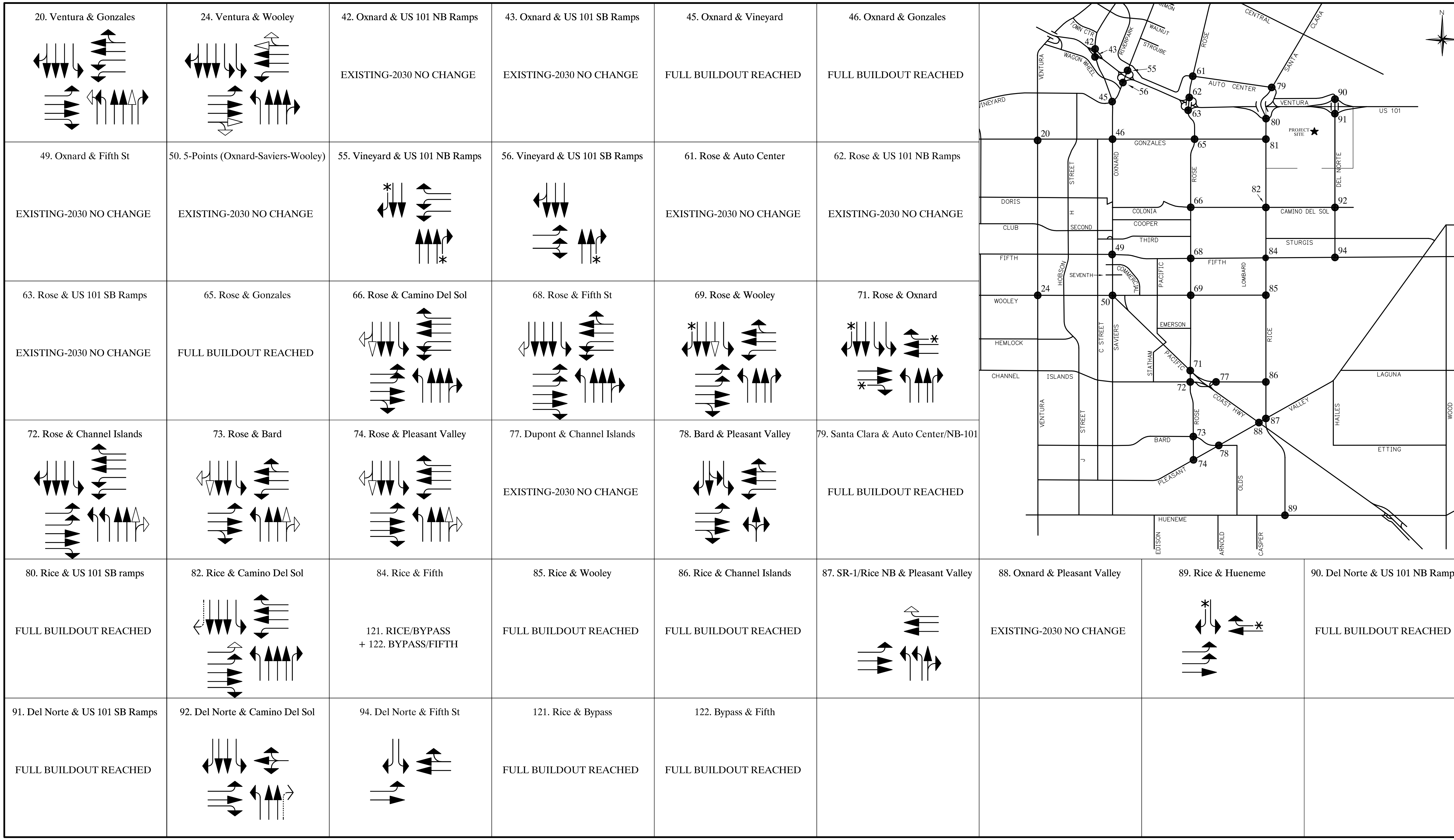
Table 4-13
PHASE 4 (2025) IMPROVEMENT MEASURES

INTERSECTION	IMPROVEMEMNTS	Year 2025 No Project		Year 2025 W/Phase 4 (Mitigation)	
		AM PEAK HOUR	PM PEAK HOUR	AM PEAK HOUR	PM PEAK HOUR
		ICU/HCM	ICU/HCM	ICU/HCM	ICU/HCM
SIGNIFICANT PROJECT IMPACT MITIGATION INTERSECTIONS					
20. Ventura Rd at Gonzales Rd	Incorporate 2nd northbound left turn lane Incorporate 3rd northbound thru lane	.67	**.85**	.60	.78
24. Ventura Rd & Wooley Rd	Incorporate 3rd eastbound & westbound thru lanes	.63	**.85**	.60	.79
66. Rose Ave & Camino Del Sol	Remove southbound free right & Incorporate 3rd - southbound thru lane Incorporate eastbound right turn lane	**.84**	**.82**	.76	.73
68. Rose Ave & Fifth St	Incorporate southbound right turn lane	.64	.77	.66	.78
72. Rose Ave & Channel Islands Blvd	Incorporate 3rd northbound thru lane	.66	.77	.67	.77
73. Rose Ave & Bard Rd	Incorporate 3rd northbound & southbound thru lanes by removing existing northbound & southbound right-turn lanes	.72	.77	.64	.68
82. Rice Ave & Camino Del Sol	Incorporate 2nd eastbound left turn lane	.64	**.95**	.71	.69
NO SIGNIFICANT PROJECT IMPACT INTERSECTIONS-IMPROVEMENTS NEEDED					
69. Rose Ave & Wooley Rd	Incorporate 3rd southbound thru lane	.71	**.86**	.66	.70
74. Rose Ave & Pleasant Valley Rd	Incorporate 3rd northbound & southbound thru lanes by removing existing northbound & southbound right-turn lanes	**.83**	**.84**	.72	.79
87. SR-1/Rice NB & Pleasant Valley Rd	Incorporate westbound right turn lane	.57	**.83**	.57	.74

sec = seconds of delay

Level of service ranges:

ICU	Signalized
.00 - .60 A	0.0 – 10.0 sec A
.61 - .70 B	10.1 – 20.0 sec B
.71 - .80 C	20.1 – 35.0 sec C
.81 - .90 D	35.1 – 55.0 sec D
.91 – 1.00 E	55.1 – 80.0 sec E
Above 1.00 F	



Legend
- Existing Lane
- Future Lane Improvement
- RTO Right Turn Overlap
- De-facto Right-Turn Lane
- * Free Right-Turn Lane

Figure 4-14

PHASE 4 (YEAR 2025)
REQUIRED MITIGATION/IMPROVEMENTS

4.3 YEAR 2030 MITIGATION

After implementation of future City improvements for the year 2030, four intersections will be allowed by the City to operate below the acceptable LOS "C". The four intersections listed below will be fully built-out by year 2030 and because of high costs of physical improvements and/or potential displacement of residences and businesses, City Council has allowed these locations to operate at a deficient LOS for the 2030 General Plan:

45. Oxnard Blvd & Vineyard Ave (PM LOS "D")
46. Oxnard Blvd & Gonzales Rd (PM LOS "D")
50. Five Points (Oxnard-Saviers-Wooley) (AM/PM LOS "F")
65. Rose Ave & Gonzales Rd (PM LOS "D")

The intersection of Rice Avenue and Gonzales Road also operates deficiently in the Year 2030, but has not been allowed to operate below the acceptable LOS and shall be mitigated to LOS "C" as part of the adoption of the Sakioka Farms Specific Plan. Based on this condition, this intersection has two options for mitigation:

Option 1: Physical Improvement Mitigation – LOS "C"

The intersection of Rice Avenue and Gonzales Road in 2030 OTM buildout conditions is forecast to operate at unacceptable LOS "D" in the AM and PM peak hours. With the addition of a northbound thru-right turn lane, the intersection could be mitigated back to an acceptable LOS "C" as shown below (see Appendix B for Mitigation ICU calculation sheets).

INTERSECTION	IMPROVEMEMNTS	OTM YEAR 2030 (Mitigation)			
		AM PEAK HOUR		PM PEAK HOUR	
		ICU	LOS	ICU	LOS
	Add a northbound thru-right turn lane	.78	C	.79	C

This mitigation improvement would not require the alteration of Rice Avenue at SB 101 Ramps, the northbound down-stream signal, as its 2030 design can accommodate the five upstream northbound thru lanes. Though the project would be required to pay a fair share cost of this mitigation, the additional land needed for this improvement south of Gonzales will need to come from the Sakioka Farms property, which land might not be available and could be a design limitation.

Option 2: City Council Accepted LOS "D"

The second option is for City Council to allow Rice Avenue and Gonzales Road to operate below ICU LOS "C" as well. Though there is a limit on physical design improvements to intersections, the City has plans for an advanced intersection control system that will be implemented throughout the City. The City of Oxnard has initiated the ITS Master Plan project as a tool to strategically deploy Intelligent Transportation Systems (ITS) strategies to improve mobility and safety to the traveling public within the Oxnard region.

The ICU methodology used to calculate the LOS does not credit or take into account the City's ITS Master Plan, which similar ITS programs such as the *Automated Traffic Surveillance and Control* system used in Los Angeles County have shown improved travel time and speed by 12%-16% and decreased delay by 32%-44% (*ATSAC evaluation study*, 1994). Rice Avenue and Gonzales, as well as the other deficient intersection locations listed above, will be part of this ITS program, which will allow the City to more efficiently and effectively manage the future transportation network and monitor these locations to improve performance without the need for expansive and costly additional physical improvements.

Finally, though this intersection shall be mitigated to LOS "C" as part of the adoption of the Sakioka Farms Specific Plan, this mitigation is for a cumulative impact, which Sakioka Farms shall be responsible for fair-share cost of the construction and mitigation. Calculation of the projects fair-share responsibility was determined using peak hour volumes and Caltrans method of calculating Equitable Share Responsibility.

YEAR 2030 MITIGATION- FAIR-SHARE RESPONSIBILITY						
Intersection		**OTM 2030 Volume (VPH)**	**Existing Volume (VPH)**	**Growth (VPH)**	**Project Volume (VPH)**	**Project Fair-Share % (Project/Growth)**
81. Rice Ave & Gonzales Rd	AM	9,410	3,500	5,910	3,669	62%
	PM	9,780	4,168	**5,612**	**3,827**	**68%**

Based on the worst case PM peak hour volume, the projects fair-share percentage responsibility for the Rice Avenue and Gonzales Road intersection would be 63%.

5.0 SUMMARY AND CONCLUSIONS

This chapter provides a summation of the primary findings and conclusions of the environmental impact report traffic study for the Sakioka Farms Specific Plan Business Park development located within the City of Oxnard in the northeast area.

It has been determined that under both existing with project and 2030 conditions, that the level of service of the surrounding street network will be adequate, except at a select number of intersections. At these select numbers of intersections that do not perform at an acceptable level of service, project mitigation is required. Other specific findings are as follows:

- The 430 acre Sakioka Farms site is located in the northeastern portion of the City of Oxnard. A total of 8,500,000 square feet (sf) of overall development activities is anticipated; 5,500,000 square feet of industrial uses, 2,900,000 square feet of business and research that also includes office uses and 100,000 sf of commercial use. Due to the large size and scale of the development, construction is will take place over a 20-year time frame in four phases.

- These analyses were conducted in accordance with guidelines identified by the City of Oxnard Staff and with the County's Congestion Management Program.

- Thirty-seven intersections have been identified as potentially impacted by the proposed project, and therefore, designated as study intersections. These intersections are as follows:

20. Ventura Rd at Gonzales Rd
24. Ventura Rd & Wooley Rd
42. Oxnard Blvd & US 101 NB Ramps
43. Oxnard Blvd & US 101 SB Ramps
45. Oxnard Blvd & Vineyard Ave
46. Oxnard Blvd & Gonzales Rd
49. Oxnard Blvd & Fifth St
50. Five-Points (Oxnard-Saviers-Wooley)
55. Vineyard Ave & US 101 NB Ramps
56. Vineyard Ave & US 101 SB Ramps
61. Rose Ave & Auto Center Dr
62. Rose Ave & US 101 NB Ramps
63. Rose Ave & US 101 SB Ramps
65. Rose Ave & Gonzales Rd
66. Rose Ave & Camino Del Sol
68. Rose Ave & Fifth St
69. Rose Ave & Wooley Rd
71. Rose Ave & Oxnard Blvd
72. Rose Ave & Channel Islands Blvd
73. Rose Ave & Bard Rd
74. Rose Ave & Pleasant Valley Rd
77. Dupont & Channel Islands Blvd
78. Bard Rd & Pleasant Valley Rd
79. Santa Clara Ave & Auto Center Dr
80. Rice Ave & US 101 SB Ramps
81. Rice Ave & Gonzales Rd
82. Rice Ave & Camino Del Sol
84. Rice Ave & Fifth St
85. Rice Ave & Wooley Rd
86. Rice Ave & Channel Islands Blvd
87. Rice Ave NB & Pleasant Valley Rd
88. Oxnard Blvd & Pleasant Valley Rd
89. Rice Ave & Hueneme Rd
90. Del Norte Blvd & US 101 NB Ramps
91. Del Norte Blvd & US 101 SB Ramps
92. Del Norte Blvd & Camino Del Sol
94. Del Norte Blvd & Fifth St

- Under existing conditions, the analyses indicate that most intersections operate within the City's acceptable LOS C during peak hour conditions. The intersection of Rose at Gonzales will perform at an unacceptable LOS during the PM peak hour, while the intersections of Del Norte at US Southbound 101 and Five-Points (Oxnard-Saviers-Wooley) perform at an unacceptable LOS during both AM and PM peak hours.

- The resulting project trip generation summarized in Table 3-1 shows a total of 8,370 AM peak hour trips (6,705 inbound and 1,665 outbound), 8,738 PM peak hour trips (2,220 inbound and 6,518 outbound), and 70,750 daily trips for the development.

- Under existing with project conditions, all intersections will operate at the City's acceptable LOS C during peak hour conditions except at the 11 locations listed below:

  46. Oxnard Blvd & Gonzales Rd
  50. Five-Points (Oxnard-Saviers-Wooley)
  65. Rose Ave & Gonzales Rd
  66. Rose Ave & Camino Del Sol
  68. Rose Ave & Fifth St
  82. Rice Ave & Camino Del Sol
  84. Rice Ave & Fifth St
  85. Rice Ave & Wooley Rd
  86. Rice Ave & Channel Islands
  90. Del Norte Blvd & US 101 NB Ramps
  91. Del Norte Blvd & US 101 SB Ramps

- Highway 101 has only one deficient segment south of the project site (Camarillo, JCT. RTE. 34, Lewis Rd. Interchange) in the southbound direction. The existing plus project traffic to Highway 101 creates a significant impact to the highway in the southbound direction at the existing deficient location. The addition of fourth travel lane in both northbound and southbound will mitigate the projects impact on Highway 101.

- Under 2030 conditions with Project all study intersections are planned to operate at an acceptable level of service with the exception of the five locations listed below:

  45. Oxnard Blvd & Vineyard Ave
  46. Oxnard Blvd & Gonzales Rd
  50. Five Points (Oxnard-Saviers-Wooley
  65. Rose Ave & Gonzales Rd
  81. Rice Ave & Gonzales Rd

- The 2030 Oxnard Traffic Model with no project traffic volume scenario, all study intersections are planned to operate at an acceptable level of service without the project, except at the three locations listed below:

  45. Oxnard Blvd & Vineyard Ave
  46. Oxnard Blvd & Gonzales Rd
  50. Five Points (Oxnard-Saviers-Wooley

- For year 2010, existing lane configurations are assumed. Opening year roadway improvements throughout the City required in Phase 1 (Year 2010) include five project area intersections. The necessary improvement measures required to mitigate the projects impact back to the no-build ICU V/C at each intersection is shown below:

SIGNIFICANT PROJECT IMPACT MITIGATION INTERSECTIONS	
65. Rose Ave & Gonzales Rd	Incorporate 4th westbound thru lane
66. Rose Ave & Camino Del Sol	Incorporate 3rd northbound thru lane by removing existing northbound right-turn lane
84. Rice Ave & Fifth St (Year 2030 #121/122)	Incorporate 3rd southbound thru lane by removing existing southbound right-turn lane
90. Del Norte Blvd & US 101 NB Ramps*	Signalization
91. Del Norte Blvd & US 101 SB Ramps*	Signalization Add northbound right turn lane

All required mitigation shall be constructed during or prior to the phased development in each particular planning area.

- For year 2015, the lane configurations shown in Figure 4-11 are assumed at the selected locations. Future roadway improvements throughout the City required in Phase 2 (Year 2015) include nine project area intersections. The project significantly impacts eight intersections where mitigation will be required. The project does not create a significant impact at Oxnard Boulevard and Vineyard Avenue intersection, but it operates at an unacceptable LOS and will need improvements. The necessary improvements required to mitigate the projects impact and/or improve deficient intersection locations is listed below:

SIGNIFICANT PROJECT IMPACT MITIGATION INTERSECTIONS	
24. Ventura Rd & Wooley Rd	Incorporate 3rd northbound & southbound thru lanes
46. Oxnard Blvd & Gonzales Rd	Incorporate 3rd eastbound thru lane-**Full Buildout Reached**
65. Rose Ave & Gonzales Rd	Incorporate 4th southbound thru lane
68. Rose Ave & Fifth St	Incorporate 2nd eastbound thru lane
84. Rice Ave & Fifth St (Year 2030 #121/122)	Incorporate 2nd westbound left turn lane
86. Rice Ave & Channel Islands Blvd	Change southbound defacto right-turn lane to a free right-turn lane-**Full Buildout Reached**
90. Del Norte Blvd & US 101 NB Ramps	Construct remainder of Interchange Improvements-**Full Buildout Reached**
91. Del Norte Blvd & US 101 SB Ramps	Construct remainder of Interchange Improvements-**Full Buildout Reached**
NO SIGNIFICANT PROJECT IMPACT-INTERSECTION IMPROVEMENTS NEEDED	
45. Oxnard Blvd & Vineyard Ave	Incorporate 3rd northbound thru lane

All required mitigation shall be constructed during or prior to the phased development in each particular planning area. For all non-project impact intersection improvements, the project shall be responsible for fair-share cost of the construction, which will be paid through the project's participation in the City of Oxnard's Circulation System Improvement Fee Program.

- For year 2020, the lane configurations shown in Figure 4-12 are assumed at the remaining intersection locations. Future roadway improvements throughout the City required in Phase 3 (Year 2020) of development include eight project area intersections. The project significantly impacts five intersections which mitigation will be required. The project does not significantly impact the intersections of Ventura Avenue and Wooley Road, Rose Avenue and Camino Del Sol, and Del Norte Boulevard and Fifth Street, but these locations perform at unacceptable LOS and will need improvements. The necessary improvements required to mitigate the projects impact and/or improve deficient intersection locations is covered below:

SIGNIFICANT PROJECT IMPACT MITIGATION INTERSECTIONS	
45. Oxnard Blvd & Vineyard Ave	Incorporate 4th southbound thru lane-**Full Buildout Reached**
65. Rose Ave & Gonzales Rd	Incorporate 2nd westbound left turn lane-**Full Buildout Reached**
68. Rose Ave & Fifth St	Incorporate 2nd westbound left turn lane
84. Rice Ave & Fifth St (Year 2030 #121/122)	Complete grade separation/bypass (121 & 122)-**Full Buildout Reached**
85. Rice Ave & Wooley Rd	Incorporate 3rd northbound & southbound thru lanes – **Full Buildout Reached**
NO SIGNIFICANT PROJECT IMPACT-INTERSECTION IMPROVEMENTS NEEDED	
24. Ventura Rd & Wooley Rd	Incorporate 2nd southbound left turn lane
66. Rose Ave & Camino Del Sol	Incorporate 2ndeastbound & westbound left turn lanes
94. Del Norte Blvd & Fifth St	Incorporate 2nd westbound thru lane

All required mitigation shall be constructed during or prior to the phased development in each particular planning area. For all non-project impact intersection improvements, the project shall be responsible for fair-share cost of the construction, which will be paid through the project's participation in the City of Oxnard's Circulation System Improvement Fee Program.

- For year 2025, the lane configurations shown in Figure 4-13 are assumed at the remaining intersection locations. Future roadway improvements throughout the City required in Phase 4 (Year 2025) of development include ten project area intersections. The project significantly impacts seven intersections which mitigation will be required. The project does not significantly impact the intersections of Rose Avenue and Wooley Road, Rose Avenue and

Pleasant Valley Road, and SR-1/Rice Avenue Northbound Ramp and Pleasant Valley Road, but these locations perform at unacceptable LOS and will need improvements. The necessary improvements required to mitigate the projects impact and/or improve deficient intersection locations is covered below:

SIGNIFICANT PROJECT IMPACT MITIGATION INTERSECTIONS	
20. Ventura Rd at Gonzales Rd	Incorporate 2nd northbound left turn lane Incorporate 3rd northbound thru lane
24. Ventura Rd & Wooley Rd	Incorporate 3rd eastbound & westbound thru lanes
66. Rose Ave & Camino Del Sol	Remove southbound free right & Incorporate 3rd -southbound thru lane Incorporate eastbound right turn lane
68. Rose Ave & Fifth St	Incorporate southbound right turn lane
72. Rose Ave & Channel Islands Blvd	Incorporate 3rd northbound thru lane
73. Rose Ave & Bard Rd	Incorporate 3rd northbound & southbound thru lanes by removing existing northbound & southbound right-turn lanes
82. Rice Ave & Camino Del Sol	Incorporate 2nd eastbound left turn lane
NO SIGNIFICANT PROJECT IMPACT-INTERSECTIONS IMPROVEMENTS NEEDED	
69. Rose Ave & Wooley Rd	Incorporate 3rd southbound thru lane
74. Rose Ave & Pleasant Valley Rd	Incorporate 3rd northbound & southbound thru lanes by removing existing northbound & southbound right-turn lanes
87. SR-1/Rice NB & Pleasant Valley Rd	Incorporate westbound right turn lane

All required mitigation shall be constructed during or prior to the phased development in each particular planning area. For all non-project impact intersection improvements, the project shall be responsible for fair-share cost of the construction, which will be paid through the project's participation in the City of Oxnard's Circulation System Improvement Fee Program.

- The intersection of Rice Avenue and Gonzales Road will operate deficiently in year 2030 OTM, but has not been identified in the General Plan operate below the acceptable LOS and shall be mitigated to LOS C as part of the adoption of the Sakioka Farms Specific Plan. Based on this condition, this intersection has two options for mitigation:

Option 1: Physical Improvement Mitigation – LOS "C"

The intersection of Rice Avenue and Gonzales Road in 2030 OTM buildout conditions is forecast to operate at unacceptable LOS "D" in the AM and PM peak hours. With the addition of a northbound thru-right turn lane, the intersection could be mitigated back to an acceptable LOS "C" as shown below.

	IMPROVEMEMNTS	OTM YEAR 2030 (Mitigation)			
		AM PEAK HOUR		PM PEAK HOUR	
		ICU	LOS	ICU	LOS
	Add a northbound thru-right turn lane	.78	C	.79	C

Though the project would be required to pay a fair share cost of this mitigation, the additional land needed for this improvement south of Gonzales Road will need to come from the Sakioka Farms property, which the land might not be available and could be a design limitation.

Option 2: City Council Accepted LOS "D"

The second option is for City Council to allow Rice Avenue and Gonzales Road to operate below ICU LOS "C" as well. Though there is a limit on physical design improvements to intersections, the City has plans for an advanced intersection control system that will be implemented throughout the City. The City of Oxnard has initiated the ITS Master Plan project as a tool to strategically deploy Intelligent Transportation Systems (ITS) strategies to improve mobility and safety to the traveling public within the Oxnard region. The ICU methodology used to calculate the LOS does not credit or take into account the City's ITS Master Plan, where similar ITS programs have shown significant improvements by 12%-44%. Rice Avenue and Gonzales, as well as the other deficient intersection locations listed above, will be part of this ITS program, which will allow the City to more efficiently and effectively manage the future transportation network and monitor these locations to improve performance without the need for expansive and costly additional physical improvements.

Finally, though this intersection shall be mitigated to LOS "C" as part of the adoption of the Sakioka Farms Specific Plan, this mitigation is for a cumulative impact, for which Sakioka Farms shall be responsible for fair-share cost of the construction and mitigation. Based on the worst case PM peak hour volume, the projects fair-share percentage responsibility for the Rice Avenue and Gonzales Road intersection would be 68%.

APPENDIX A

LEVEL OF SERVICE DEFINITIONS
TRAFFIC COUNTS

Table A-1

LEVEL OF SERVICE DESCRIPTIONS - INTERSECTIONS

Levels of service (LOS) is defined in terms of control delay as follows:

		HCM		ICU
LOS	DESCRIPTION	Delay Per Vehicle (sec.)		Volume/ Capacity
		Signalized	Un-signalized	
A	LOS A describes operations with low control delay, up to 10 seconds per vehicle. This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.	< 10.0	< 10.0	< .61
B	LOS B describes operations with control delay greater than 10 and up to 20 seconds per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than the LOS A, causing higher levels of delay.	10.1 – 20.0	10.1 – 15.0	.61 - .70
C	LOS C describes operations with control delay greater than 20 and up to 35 seconds per vehicle. These higher delays may result from only fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.	20.1 – 35.0	15.1 – 25.0	.71 - .80
D	LOS D describes operations with control delay greater than 35 and up to 55 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high V/C ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	35.1 – 55.0	25.1 – 35.0	.81 - .90
E	LOS E describes operations with control delay greater than 55 and up to 80 seconds per vehicle. These high delay values generally indicate poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent.	55.1 – 80.0	35.1 – 50.0	.91 – 1.00
F	LOS F describes operations with control delay in excess of 80 seconds per vehicle. This level, considered unacceptable to most drivers, often occurs with over saturation, that is, when arrival flow rates exceed the capacity of lane groups. It may also occur at high V/C ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.	> 80.1	> 50.1	> 1.00

Source: Highway Capacity Manual 2000, Transportation Research Board, National Research Council.

INTERSECTION CAPACITY UTILIZATION

Peak hour intersection volume/capacity ratios are calculated by means of intersection capacity utilization (ICU) values. ICU calculations were performed for the intersections shown in Figure A-1. For simplicity, signalization is assumed at each intersection. Precise ICU calculations of existing non-signalized intersections would require a more detailed analysis.

The procedure is based on the critical movement methodology, and shows the amount of capacity utilized by each critical move. A capacity of 1700 vehicles per hour (VPH) per lane is assumed together with a .05 clearance interval. A "de-facto" right-turn lane is used in the ICU calculation for cases where a curb lane is wide enough to separately serve both thru and right-turn traffic (typically with a width of 19 feet from curb to outside of thru-lane with parking prohibited during peak periods). Such lanes are treated the same as striped right-turn lanes during the ICU calculations, but they are denoted on the ICU calculation worksheets using the letter "d" in place of a numerical entry for right-turn lanes.

The methodology also incorporates a check for right-turn capacity utilization. Both right-turn-on-green (RTOG) and right-turn-on-red (RTOR) capacity availability are calculated and checked against the total right-turn capacity need. If insufficient capacity is available, then an adjustment is made to the total capacity utilization value. The following example shows how this adjustment is made.

Example For Northbound Right

<u>1. Right-Turn-On-Green (RTOG)</u>

If NBT is critical move, then:
RTOG = V/C (NBT)
Otherwise,
RTOG = V/C (NBL) + V/C (SBT) - V/C (SBL)

<u>2. Right-Turn-On-Red (RTOR)</u>

If WBL is critical move, then:
RTOR = V/C (WBL)
Otherwise,
RTOR = V/C (EBL) + V/C (WBT) - V/C (EBT)

3. Right-Turn Overlap Adjustment

If the northbound right is assumed to overlap with the adjacent westbound left, adjustments to the RTOG and RTOR values are made as follows:

RTOG = RTOG + V/C (WBL)
RTOR = RTOR - V/C (WBL)

4. Total Right-Turn Capacity (RTC) Availability For NBR

RTC = RTOG + factor x RTOR
Where factor = RTOR saturation flow factor (75%)

Right-turn adjustment is then as follows: Additional ICU = V/C (NBR) - RTC

A zero or negative value indicates that adequate capacity is available and no adjustment is necessary. A positive value indicates that the available RTOR and RTOG capacity does not adequately accommodate the right-turn V/C, therefore the right-turn is essentially considered to be a critical movement. In such cases, the right-turn adjustment is noted on the ICU worksheet and it is included in the total capacity utilization value. When it is determined that a right-turn adjustment is required for more than one right-turn movement, the word "multi" is printed on the worksheet instead of an actual right-turn movement reference, and the right-turn adjustments are cumulatively added to the total capacity utilization value. In such cases, further operational evaluation is typically carried out to determine if under actual operational conditions, the critical right-turns would operate simultaneously, and therefore a right-turn adjustment credit should be applied.

Shared Lane V/C Methodology

For intersection approaches where shared usage of a lane is permitted by more than one turn movement (e.g., left/thru, thru/right, left/thru/right), the individual turn volumes are evaluated to determine whether dedication of the shared lane is warranted to any one given turn movement. The following example demonstrates how this evaluation is carried out:

Example for Shared Left/Thru Lane

1. Average Lane Volume (ALV)

$$ALV = \frac{\text{Left-Turn Volume + Thru Volume}}{\text{Total Left + Thru Approach Lanes (including shared lane)}}$$

2. ALV for Each Approach

$$\text{ALV (Left)} = \frac{\text{Left-Turn Volume}}{\text{Left Approach Lanes (including shared lane)}}$$

$$\text{ALV (Thru)} = \frac{\text{Thru Volume}}{\text{Thru Approach Lanes (including shared lane)}}$$

3. Lane Dedication is Warranted

If ALV (Left) is greater than ALV then full dedication of the shared lane to the left-turn approach is warranted. Left-turn and thru V/C ratios for this case are calculated as follows:

$$\text{V/C (Left)} = \frac{\text{Left-Turn Volume}}{\text{Left Approach Capacity (including shared lane)}}$$

$$\text{V/C (Thru)} = \frac{\text{Thru Volume}}{\text{Thru Approach Capacity (excluding shared lane)}}$$

Similarly, if ALV (Thru) is greater than ALV then full dedication to the thru approach is warranted, and left-turn and thru V/C ratios are calculated as follows:

$$\text{V/C (Left)} = \frac{\text{Left-Turn Volume}}{\text{Left Approach Capacity (excluding shared lane)}}$$

$$\text{V/C (Thru)} = \frac{\text{Thru Volume}}{\text{Thru Approach Capacity (including shared lane)}}$$

4. Lane Dedication is not Warranted

If ALV (Left) and ALV (Thru) are both less than ALV, the left/thru lane is assumed to be truly shared and each left, left/thru or thru approach lane carries an evenly distributed volume of traffic equal to ALV. A combined left/thru V/C ratio is calculated as follows:

$$\text{V/C (Left/Thru)} = \frac{\text{Left-Turn Volume + Thru Volume}}{\text{Total Left + Thru Approach Capacity (including shared lane)}}$$

This V/C (Left/Thru) ratio is assigned as the V/C (Thru) ratio for the critical movement analysis and ICU summary listing.

If split phasing has not been designated for this approach, the relative proportion of V/C (Thru) that is attributed to the left-turn volume is estimated as follows:

If approach has more than one left-turn (including shared lane), then:
V/C (Left) = V/C (Thru)

If approach has only one left-turn lane (shared lane), then:

$$V/C\ (\text{Left}) = \frac{\text{Left-Turn Volume}}{\text{Single Approach Lane Capacity}}$$

If this left-turn movement is determined to be a critical movement, the V/C (Left) value is posted in brackets on the ICU summary printout.

These same steps are carried out for shared thru/right lanes. If full dedication of a shared thru/right lane to the right-turn movement is warranted, the right-turn V/C value calculated in step three is checked against the RTOR and RTOG capacity availability if the option to include right-turns in the V/C ratio calculations is selected. If the V/C value that is determined using the shared lane methodology described here is reduced due to RTOR and RTOG capacity availability, the V/C value for the thru/right lanes is posted in brackets.

When an approach contains more than one shared lane (e.g., left/thru and thru/right), steps one and two listed above are carried out for the three turn movements combined. Step four is carried out if dedication is not warranted for either of the shared lanes. If dedication of one of the shared lanes is warranted to one movement or another, step three is carried out for the two movements involved, and then steps one through four are repeated for the two movements involved in the other shared lane.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY SEPTEMBER 20, 2007
PERIOD:		7:00 AM TO 10:00 AM
INTERSECTION:	N/S	RICE AVENUE
	E/W	FIFTH AVENUE
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	16	2	18	177	11	188	7	0	7	2	0	2	30	2	32	25	2	27
715-730	29	4	33	208	17	225	7	1	8	2	0	2	49	3	52	28	4	32
730-745	28	3	31	194	9	203	7	0	7	4	0	4	53	4	57	41	2	43
745-800	26	1	27	216	18	234	10	0	10	7	0	7	84	4	88	30	6	36
800-815	24	3	27	167	7	174	5	0	5	8	0	8	62	6	68	30	3	33
815-830	15	4	19	138	9	147	4	1	5	2	0	2	80	5	85	38	0	38
830-845	19	6	25	130	10	140	4	1	5	5	1	6	58	7	65	33	2	35
845-900	19	7	26	122	14	136	5	1	6	3	0	3	45	14	59	21	0	21
900-915	26	1	27	131	18	149	4	0	4	7	0	7	51	7	58	17	2	19
915-930	19	5	24	88	14	102	4	0	4	7	0	7	46	3	49	19	4	23
930-945	25	3	28	133	13	146	5	1	6	2	0	2	45	5	50	22	2	24
945-1000	18	2	20	103	18	121	9	0	9	8	0	8	45	6	51	11	1	12
HOUR TOTALS																		
700-800	99	10	109	795	55	850	31	1	32	15	0	15	216	13	229	124	14	138
715-815	107	11	118	785	51	836	29	1	30	21	0	21	248	17	265	129	15	144
730-830	93	11	104	715	43	758	26	1	27	21	0	21	279	19	298	139	11	150
745-845	84	14	98	651	44	695	23	2	25	22	1	23	284	22	306	131	11	142
800-900	77	20	97	557	40	597	18	3	21	18	1	19	245	32	277	122	5	127
815-915	79	18	97	521	51	572	17	3	20	17	1	18	234	33	267	109	4	113
830-930	83	19	102	471	56	527	17	2	19	22	1	23	200	31	231	90	8	98
845-945	89	16	105	474	59	533	18	2	20	19	0	19	187	29	216	79	8	87
900-1000	88	11	99	455	63	518	22	1	23	24	0	24	187	21	208	69	9	78

PEAK HOUR
715-815

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	88	1	89	227	7	234	3	1	4	1	0	1	65	5	70	23	3	26	664	34	698
715-730	107	3	110	267	12	279	1	0	1	5	0	5	75	4	79	34	2	36	812	50	862
730-745	111	2	113	277	14	291	5	0	5	3	0	3	108	6	114	21	4	25	852	44	896
745-800	94	3	97	317	14	331	3	1	4	5	0	5	129	8	137	34	7	41	955	62	1017
800-815	70	1	71	229	18	247	4	0	4	6	0	6	82	5	87	30	7	37	717	50	767
815-830	67	5	72	215	15	230	2	1	3	3	0	3	82	5	87	21	2	23	667	47	714
830-845	45	4	49	142	12	154	2	0	2	1	0	1	39	7	46	10	3	13	488	53	541
845-900	51	2	53	141	20	161	3	0	3	1	1	2	50	11	61	14	11	25	475	81	556
900-915	30	2	32	114	19	133	4	0	4	5	5	10	52	11	63	10	4	14	451	69	520
915-930	24	2	26	107	21	128	1	1	2	3	0	3	38	7	45	11	5	16	367	62	429
930-945	31	3	34	118	22	140	1	1	2	1	0	1	53	6	59	16	4	20	452	60	512
945-1000	35	2	37	119	15	134	0	2	2	1	0	1	27	5	32	8	5	13	384	56	440
HOUR TOTALS																					
700-800	400	9	409	1088	47	1135	12	2	14	14	0	14	377	23	400	112	16	128	3283	190	3473
715-815	382	9	391	1090	58	1148	13	1	14	19	0	19	394	23	417	119	20	139	3336	206	3542
730-830	342	11	353	1038	61	1099	14	2	16	17	0	17	401	24	425	106	20	126	3191	203	3394
745-845	276	13	289	903	59	962	11	2	13	15	0	15	332	25	357	95	19	114	2827	212	3039
800-900	233	12	245	727	65	792	11	1	12	11	1	12	253	28	281	75	23	98	2347	231	2578
815-915	193	13	206	612	66	678	11	1	12	10	6	16	223	34	257	55	20	75	2081	250	2331
830-930	150	10	160	504	72	576	10	1	11	10	6	16	179	36	215	45	23	68	1781	265	2046
845-945	136	9	145	480	82	562	9	2	11	10	6	16	193	35	228	51	24	75	1745	272	2017
900-1000	120	9	129	458	77	535	6	4	10	10	5	15	170	29	199	45	18	63	1654	247	1901

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY SEPTEMBER 20, 2007
PERIOD:		3:00 PM TO 6:00 PM
INTERSECTION:	N/S	RICE AVENUE
	E/W	FIFTH AVENUE
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	37	6	43	204	13	217	3	1	4	16	1	17	89	9	98	64	1	65
315-330	50	4	54	217	14	231	5	2	7	7	0	7	97	3	100	62	1	63
330-345	52	6	58	247	12	259	15	0	15	7	0	7	98	6	104	68	0	68
345-400	64	2	66	302	25	327	7	1	8	17	2	19	122	9	131	105	1	106
400-415	57	3	60	281	7	288	5	0	5	2	0	2	126	11	137	69	2	71
415-430	30	1	31	241	8	249	9	0	9	11	1	12	110	3	113	65	1	66
430-445	68	4	72	344	8	352	9	0	9	16	0	16	139	1	140	78	1	79
445-500	61	2	63	342	11	353	6	0	6	22	0	22	159	7	166	81	0	81
500-515	57	4	61	389	9	398	10	0	10	19	0	19	173	4	177	102	0	102
515-530	48	4	52	288	8	296	5	0	5	7	0	7	114	3	117	64	0	64
530-545	72	5	77	360	11	371	10	0	10	23	0	23	139	9	148	87	0	87
545-600	34	3	37	282	1	283	1	0	1	5	0	5	118	0	118	53	1	54
HOUR TOTALS																		
300-400	203	18	221	970	64	1034	30	4	34	47	3	50	406	27	433	299	3	302
315-415	223	15	238	1047	58	1105	32	3	35	33	2	35	443	29	472	304	4	308
330-430	203	12	215	1071	52	1123	36	1	37	37	3	40	456	29	485	307	4	311
345-445	219	10	229	1168	48	1216	30	1	31	46	3	49	497	24	521	317	5	322
400-500	216	10	226	1208	34	1242	29	0	29	51	1	52	534	22	556	293	4	297
415-515	216	11	227	1316	36	1352	34	0	34	68	1	69	581	15	596	326	2	328
430-530	234	14	248	1363	36	1399	30	0	30	64	0	64	585	15	600	325	1	326
445-545	238	15	253	1379	39	1418	31	0	31	71	0	71	585	23	608	334	0	334
500-600	211	16	227	1319	29	1348	26	0	26	54	0	54	544	16	560	306	1	307

PEAK HOUR
415-515

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	49	2	51	184	24	208	7	0	7	2	0	2	69	8	77	22	2	24	746	67	813
315-330	51	2	53	179	19	198	11	0	11	3	0	3	51	9	60	23	5	28	756	59	815
330-345	69	2	71	245	27	272	7	4	11	4	1	5	51	8	59	26	3	29	889	69	958
345-400	71	2	73	279	22	301	11	0	11	7	0	7	70	5	75	32	0	32	1087	69	1156
400-415	50	3	53	246	21	267	8	0	8	0	0	0	35	2	37	20	3	23	899	52	951
415-430	75	1	76	319	23	342	16	1	17	8	2	10	56	8	64	19	2	21	959	51	1010
430-445	64	3	67	278	13	291	2	2	4	3	0	3	66	4	70	30	2	32	1097	38	1135
445-500	66	2	68	261	14	275	7	1	8	4	1	5	41	4	45	23	2	25	1073	44	1117
500-515	67	3	70	305	12	317	14	4	18	3	1	4	95	0	95	27	4	31	1261	41	1302
515-530	56	5	61	225	9	234	5	0	5	3	0	3	59	3	62	12	2	14	886	34	920
530-545	47	0	47	208	12	220	11	0	11	2	0	2	58	3	61	28	2	30	1045	42	1087
545-600	36	0	36	179	10	189	5	0	5	0	0	0	63	3	66	14	1	15	790	19	809
HOUR TOTALS																					
300-400	240	8	248	887	92	979	36	4	40	16	1	17	241	30	271	103	10	113	3478	264	3742
315-415	241	9	250	949	89	1038	37	4	41	14	1	15	207	24	231	101	11	112	3631	249	3880
330-430	265	8	273	1089	93	1182	42	5	47	19	3	22	212	23	235	97	8	105	3834	241	4075
345-445	260	9	269	1122	79	1201	37	3	40	18	2	20	227	19	246	101	7	108	4042	210	4252
400-500	255	9	264	1104	71	1175	33	4	37	15	3	18	198	18	216	92	9	101	4028	185	4213
415-515	272	9	281	1163	62	1225	39	8	47	18	4	22	258	16	274	99	10	109	4390	174	4564
430-530	253	13	266	1069	48	1117	28	7	35	13	2	15	261	11	272	92	10	102	4317	157	4474
445-545	236	10	246	999	47	1046	37	5	42	12	2	14	253	10	263	90	10	100	4265	161	4426
500-600	206	8	214	917	43	960	35	4	39	8	1	9	275	9	284	81	9	90	3982	136	4118

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		WEDNESDAY SEPTEMBER 5, 2007
PERIOD:		7:00 AM TO 10:00 AM
INTERSECTION:	N/S	ROSE AVENUE
	E/W	CAMINO DEL SOL
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	9	0	9	158	16	174	30	0	30	15	1	16	37	1	38	24	1	25
715-730	17	0	17	241	10	251	37	1	38	14	0	14	38	0	38	24	1	25
730-745	20	0	20	272	12	284	41	1	42	29	1	30	28	0	28	45	3	48
745-800	24	0	24	340	14	354	49	0	49	24	0	24	54	1	55	41	2	43
800-815	15	1	16	294	13	307	49	2	51	20	3	23	26	1	27	34	0	34
815-830	6	0	6	232	13	245	23	0	23	18	1	19	19	2	21	38	1	39
830-845	19	0	19	172	18	190	20	1	21	16	1	17	22	2	24	30	1	31
845-900	17	0	17	185	15	200	21	0	21	20	4	24	13	2	15	32	2	34
900-915	19	1	20	199	16	215	21	0	21	15	0	15	18	0	18	36	0	36
915-930	23	0	23	210	11	221	9	1	10	12	1	13	21	0	21	27	2	29
930-945	15	0	15	171	16	187	10	2	12	14	2	16	19	1	20	27	0	27
945-1000	21	1	22	197	23	220	17	1	18	14	1	15	20	1	21	12	0	12
HOUR TOTALS																		
700-800	70	0	70	1011	52	1063	157	2	159	82	2	84	157	2	159	134	7	141
715-815	76	1	77	1147	49	1196	176	4	180	87	4	91	146	2	148	144	6	150
730-830	65	1	66	1138	52	1190	162	3	165	91	5	96	127	4	131	158	6	164
745-845	64	1	65	1038	58	1096	141	3	144	78	5	83	121	6	127	143	4	147
800-900	57	1	58	883	59	942	113	3	116	74	9	83	80	7	87	134	4	138
815-915	61	1	62	788	62	850	85	1	86	69	6	75	72	6	78	136	4	140
830-930	78	1	79	766	60	826	71	2	73	63	6	69	74	4	78	125	5	130
845-945	74	1	75	765	58	823	61	3	64	61	7	68	71	3	74	122	4	126
900-1000	78	2	80	777	66	843	57	4	61	55	4	59	78	2	80	102	2	104

PEAK HOUR
715-815

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	38	1	39	217	17	234	49	0	49	57	0	57	42	1	43	37	0	37	713	38	751
715-730	55	1	56	233	10	243	53	1	54	27	0	27	78	4	82	27	0	27	844	28	872
730-745	54	0	54	304	19	323	23	1	24	41	0	41	56	0	56	46	0	46	959	37	996
745-800	54	1	55	280	12	292	28	0	28	31	0	31	62	0	62	62	0	62	1049	30	1079
800-815	49	1	50	290	15	305	21	0	21	34	0	34	47	0	47	53	0	53	932	36	968
815-830	34	1	35	253	10	263	10	0	10	20	0	20	42	0	42	24	0	24	719	28	747
830-845	29	0	29	242	17	259	19	0	19	25	1	26	15	0	15	28	0	28	637	41	678
845-900	23	3	26	250	12	262	11	0	11	18	0	18	15	0	15	23	0	23	628	38	666
900-915	25	3	28	258	20	278	15	0	15	21	1	22	21	0	21	27	0	27	675	41	716
915-930	17	0	17	176	6	182	14	0	14	10	0	10	15	0	15	16	0	16	550	21	571
930-945	24	0	24	208	7	215	10	0	10	6	0	6	17	0	17	24	0	24	545	28	573
945-1000	19	1	20	219	11	230	10	0	10	11	0	11	17	0	17	21	0	21	578	39	617
HOUR TOTALS																					
700-800	201	3	204	1034	58	1092	153	2	155	156	0	156	238	5	243	172	0	172	3565	133	3698
715-815	212	3	215	1107	56	1163	125	2	127	133	0	133	243	4	247	188	0	188	3784	131	3915
730-830	191	3	194	1127	56	1183	82	1	83	126	0	126	207	0	207	185	0	185	3659	131	3790
745-845	166	3	169	1065	54	1119	78	0	78	110	1	111	166	0	166	167	0	167	3337	135	3472
800-900	135	5	140	1035	54	1089	61	0	61	97	1	98	119	0	119	128	0	128	2916	143	3059
815-915	111	7	118	1003	59	1062	55	0	55	84	2	86	93	0	93	102	0	102	2659	148	2807
830-930	94	6	100	926	55	981	59	0	59	74	2	76	66	0	66	94	0	94	2490	141	2631
845-945	89	6	95	892	45	937	50	0	50	55	1	56	68	0	68	90	0	90	2398	128	2526
900-1000	85	4	89	861	44	905	49	0	49	48	1	49	70	0	70	88	0	88	2348	129	2477

WILTEC

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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		WEDNESDAY SEPTEMBER 5, 2007
PERIOD:		3:00 PM TO 6:00 PM
INTERSECTION:	N/S	ROSE AVENUE
	E/W	CAMINO DEL SOL
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	12	0	12	203	16	219	16	1	17	32	0	32	45	0	45	32	0	32
315-330	37	0	37	286	14	300	29	0	29	25	1	26	63	1	64	35	0	35
330-345	22	0	22	255	9	264	39	0	39	38	2	40	74	0	74	40	0	40
345-400	30	1	31	310	17	327	20	1	21	29	0	29	58	0	58	77	0	77
400-415	79	1	80	341	11	352	46	1	47	26	0	26	90	0	90	47	1	48
415-430	39	0	39	277	12	289	21	0	21	47	1	48	78	2	80	43	4	47
430-445	76	0	76	334	10	344	46	0	46	82	0	82	118	2	120	86	1	87
445-500	67	0	67	289	9	298	23	3	26	39	0	39	100	0	100	41	0	41
500-515	37	0	37	274	5	279	37	0	37	58	0	58	124	0	124	60	0	60
515-530	83	0	83	320	7	327	30	0	30	59	1	60	110	2	112	64	0	64
530-545	47	0	47	305	4	309	15	0	15	22	0	22	114	1	115	61	1	62
545-600	62	1	63	434	9	443	31	1	32	51	0	51	125	0	125	85	0	85
HOUR TOTALS																		
300-400	101	1	102	1054	56	1110	104	2	106	124	3	127	240	1	241	184	0	184
315-415	168	2	170	1192	51	1243	134	2	136	118	3	121	285	1	286	199	1	200
330-430	170	2	172	1183	49	1232	126	2	128	140	3	143	300	2	302	207	5	212
345-445	224	2	226	1262	50	1312	133	2	135	184	1	185	344	4	348	253	6	259
400-500	261	1	262	1241	42	1283	136	4	140	194	1	195	386	4	390	217	6	223
415-515	219	0	219	1174	36	1210	127	3	130	226	1	227	420	4	424	230	5	235
430-530	263	0	263	1217	31	1248	136	3	139	238	1	239	452	4	456	251	1	252
445-545	234	0	234	1188	25	1213	105	3	108	178	1	179	448	3	451	226	1	227
500-600	229	1	230	1333	25	1358	113	1	114	190	1	191	473	3	476	270	1	271

PEAK HOUR
430-530

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	33	1	34	314	14	328	29	0	29	18	0	18	35	0	35	33	0	33	802	32	834
315-330	38	1	39	352	12	364	36	0	36	33	0	33	37	0	37	37	0	37	1008	29	1037
330-345	26	0	26	321	14	335	24	0	24	21	0	21	33	0	33	25	0	25	918	25	943
345-400	21	2	23	264	8	272	24	0	24	22	0	22	26	0	26	23	0	23	904	29	933
400-415	28	0	28	334	8	342	21	0	21	31	0	31	37	0	37	26	0	26	1106	22	1128
415-430	37	0	37	324	6	330	21	0	21	18	0	18	34	0	34	21	0	21	960	25	985
430-445	32	1	33	346	16	362	22	0	22	21	0	21	44	2	46	37	0	37	1244	32	1276
445-500	32	1	33	272	8	280	24	1	25	12	0	12	40	0	40	26	0	26	965	22	987
500-515	43	0	43	310	4	314	26	0	26	35	0	35	53	0	53	29	0	29	1086	9	1095
515-530	39	0	39	301	10	311	24	0	24	27	0	27	38	0	38	40	0	40	1135	20	1155
530-545	29	0	29	263	9	272	32	0	32	30	0	30	29	0	29	26	0	26	973	15	988
545-600	28	0	28	259	11	270	23	0	23	24	0	24	30	0	30	22	0	22	1174	22	1196
HOUR TOTALS																					
300-400	118	4	122	1251	48	1299	113	0	113	94	0	94	131	0	131	118	0	118	3632	115	3747
315-415	113	3	116	1271	42	1313	105	0	105	107	0	107	133	0	133	111	0	111	3936	105	4041
330-430	112	2	114	1243	36	1279	90	0	90	92	0	92	130	0	130	95	0	95	3888	101	3989
345-445	118	3	121	1268	38	1306	88	0	88	92	0	92	141	2	143	107	0	107	4214	108	4322
400-500	129	2	131	1276	38	1314	88	1	89	82	0	82	155	2	157	110	0	110	4275	101	4376
415-515	144	2	146	1252	34	1286	93	1	94	86	0	86	171	2	173	113	0	113	4255	88	4343
430-530	146	2	148	1229	38	1267	96	1	97	95	0	95	175	2	177	132	0	132	4430	83	4513
445-545	143	1	144	1146	31	1177	106	1	107	104	0	104	160	0	160	121	0	121	4159	66	4225
500-600	139	0	139	1133	34	1167	105	0	105	116	0	116	150	0	150	117	0	117	4368	66	4434

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY SEPTEMBER 6, 2007
PERIOD:		7:00 AM TO 10:00 AM
INTERSECTION:	N/S	ROSE AVENUE
	E/W	CHANNEL ISLANDS BOULEVARD
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	25	1	26	49	0	49	24	1	25	3	0	3	30	4	34	14	0	14
715-730	34	1	35	91	0	91	28	1	29	2	0	2	60	1	61	33	1	34
730-745	45	2	47	156	0	156	31	0	31	0	0	0	70	3	73	57	2	59
745-800	27	1	28	140	0	140	13	0	13	2	0	2	65	6	71	31	0	31
800-815	27	0	27	138	2	140	34	1	35	0	0	0	73	1	74	29	0	29
815-830	44	1	45	108	0	108	26	0	26	2	1	3	64	1	65	31	0	31
830-845	43	0	43	109	0	109	19	0	19	1	0	1	71	4	75	73	3	76
845-900	34	0	34	134	4	138	16	1	17	0	1	1	57	0	57	78	0	78
900-915	51	1	52	124	3	127	20	0	20	1	0	1	43	2	45	22	0	22
915-930	33	3	36	131	0	131	30	0	30	0	1	1	41	2	43	51	2	53
930-945	37	0	37	90	2	92	14	1	15	2	0	2	61	3	64	19	0	19
945-1000	32	3	35	65	2	67	22	0	22	3	0	3	47	2	49	17	0	17
HOUR TOTALS																		
700-800	131	5	136	436	0	436	96	2	98	7	0	7	225	14	239	135	3	138
715-815	133	4	137	525	2	527	106	2	108	4	0	4	268	11	279	150	3	153
730-830	143	4	147	542	2	544	104	1	105	4	1	5	272	11	283	148	2	150
745-845	141	2	143	495	2	497	92	1	93	5	1	6	273	12	285	164	3	167
800-900	148	1	149	489	6	495	95	2	97	3	2	5	265	6	271	211	3	214
815-915	172	2	174	475	7	482	81	1	82	4	2	6	235	7	242	204	3	207
830-930	161	4	165	498	7	505	85	1	86	2	2	4	212	8	220	224	5	229
845-945	155	4	159	479	9	488	80	2	82	3	2	5	202	7	209	170	2	172
900-1000	153	7	160	410	7	417	86	1	87	6	1	7	192	9	201	109	2	111

PEAK HOUR
715-815

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	24	0	24	109	0	109	14	1	15	12	1	13	118	1	119	56	0	56	478	9	487
715-730	20	0	20	140	1	141	21	0	21	27	0	27	162	0	162	99	1	100	717	6	723
730-745	35	0	35	163	0	163	33	0	33	54	0	54	187	2	189	79	0	79	910	9	919
745-800	22	0	22	160	1	161	53	0	53	67	0	67	145	0	145	99	1	100	824	9	833
800-815	21	0	21	168	2	170	42	0	42	41	1	42	148	3	151	95	0	95	816	10	826
815-830	13	0	13	121	0	121	31	0	31	17	0	17	92	2	94	82	0	82	631	5	636
830-845	29	2	31	142	0	142	50	0	50	43	1	44	92	3	95	79	0	79	751	13	764
845-900	27	2	29	143	1	144	84	0	84	41	0	41	96	2	98	82	0	82	792	11	803
900-915	17	0	17	104	2	106	35	0	35	38	0	38	73	1	74	59	2	61	587	11	598
915-930	17	0	17	139	0	139	56	1	57	55	0	55	70	0	70	83	1	84	706	10	716
930-945	18	0	18	123	0	123	54	0	54	32	0	32	64	1	65	62	2	64	576	9	585
945-1000	14	0	14	88	1	89	30	0	30	16	0	16	54	1	55	46	1	47	434	10	444
HOUR TOTALS																					
700-800	101	0	101	572	2	574	121	1	122	160	1	161	612	3	615	333	2	335	2929	33	2962
715-815	98	0	98	631	4	635	149	0	149	189	1	190	642	5	647	372	2	374	3267	34	3301
730-830	91	0	91	612	3	615	159	0	159	179	1	180	572	7	579	355	1	356	3181	33	3214
745-845	85	2	87	591	3	594	176	0	176	168	2	170	477	8	485	355	1	356	3022	37	3059
800-900	90	4	94	574	3	577	207	0	207	142	2	144	428	10	438	338	0	338	2990	39	3029
815-915	86	4	90	510	3	513	200	0	200	139	1	140	353	8	361	302	2	304	2761	40	2801
830-930	90	4	94	528	3	531	225	1	226	177	1	178	331	6	337	303	3	306	2836	45	2881
845-945	79	2	81	509	3	512	229	1	230	166	0	166	303	4	307	286	5	291	2661	41	2702
900-1000	66	0	66	454	3	457	175	1	176	141	0	141	261	3	264	250	6	256	2303	40	2343

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY SEPTEMBER 6, 2007
PERIOD:		3:00 PM TO 6:00 PM
INTERSECTION:	N/S	ROSE AVENUE
	E/W	CHANNEL ISLANDS BOULEVARD
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	68	1	69	132	0	132	28	0	28	3	0	3	145	0	145	48	0	48
315-330	66	1	67	137	2	139	40	0	40	1	0	1	139	0	139	46	0	46
330-345	65	1	66	165	0	165	51	0	51	1	0	1	143	1	144	45	0	45
345-400	85	0	85	168	0	168	42	0	42	7	1	8	147	1	148	57	0	57
400-415	74	0	74	138	0	138	35	1	36	4	0	4	180	1	181	42	0	42
415-430	76	0	76	173	1	174	45	0	45	2	0	2	180	0	180	42	0	42
430-445	83	0	83	170	0	170	37	0	37	3	0	3	158	2	160	39	0	39
445-500	86	1	87	206	0	206	45	0	45	1	0	1	203	1	204	56	0	56
500-515	76	0	76	231	0	231	43	1	44	5	0	5	175	1	176	74	0	74
515-530	78	0	78	218	1	219	36	0	36	1	0	1	201	1	202	79	0	79
530-545	94	0	94	239	1	240	69	1	70	1	0	1	179	1	180	66	1	67
545-600	66	0	66	212	0	212	32	0	32	1	0	1	199	0	199	62	0	62
HOUR TOTALS																		
300-400	284	3	287	602	2	604	161	0	161	12	1	13	574	2	576	196	0	196
315-415	290	2	292	608	2	610	168	1	169	13	1	14	609	3	612	190	0	190
330-430	300	1	301	644	1	645	173	1	174	14	1	15	650	3	653	186	0	186
345-445	318	0	318	649	1	650	159	1	160	16	1	17	665	4	669	180	0	180
400-500	319	1	320	687	1	688	162	1	163	10	0	10	721	4	725	179	0	179
415-515	321	1	322	780	1	781	170	1	171	11	0	11	716	4	720	211	0	211
430-530	323	1	324	825	1	826	161	1	162	10	0	10	737	5	742	248	0	248
445-545	334	1	335	894	2	896	193	2	195	8	0	8	758	4	762	275	1	276
500-600	314	0	314	900	2	902	180	2	182	8	0	8	754	3	757	281	1	282

PEAK HOUR
445-545

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	16	0	16	109	3	112	42	0	42	44	0	44	95	0	95	93	0	93	823	4	827
315-330	42	0	42	147	1	148	99	0	99	48	0	48	106	0	106	113	1	114	984	5	989
330-345	47	0	47	136	2	138	48	1	49	38	0	38	108	2	110	117	0	117	964	7	971
345-400	20	0	20	103	1	104	43	0	43	50	0	50	104	0	104	106	0	106	932	3	935
400-415	28	0	28	135	0	135	53	0	53	31	0	31	105	1	106	109	0	109	934	3	937
415-430	28	0	28	132	0	132	48	0	48	40	0	40	108	0	108	121	1	122	995	2	997
430-445	20	1	21	151	0	151	73	0	73	32	0	32	102	1	103	101	0	101	969	4	973
445-500	18	0	18	113	1	114	45	0	45	27	0	27	91	2	93	104	0	104	995	5	1000
500-515	25	0	25	136	0	136	71	0	71	64	0	64	91	1	92	117	0	117	1108	3	1111
515-530	24	0	24	149	0	149	74	0	74	45	0	45	108	1	109	123	0	123	1136	3	1139
530-545	32	0	32	135	0	135	72	0	72	50	0	50	96	0	96	116	0	116	1149	4	1153
545-600	28	0	28	97	0	97	36	0	36	43	0	43	99	0	99	119	0	119	994	0	994
HOUR TOTALS																					
300-400	125	0	125	495	7	502	232	1	233	180	0	180	413	2	415	429	1	430	3703	19	3722
315-415	137	0	137	521	4	525	243	1	244	167	0	167	423	3	426	445	1	446	3814	18	3832
330-430	123	0	123	506	3	509	192	1	193	159	0	159	425	3	428	453	1	454	3825	15	3840
345-445	96	1	97	521	1	522	217	0	217	153	0	153	419	2	421	437	1	438	3830	12	3842
400-500	94	1	95	531	1	532	219	0	219	130	0	130	406	4	410	435	1	436	3893	14	3907
415-515	91	1	92	532	1	533	237	0	237	163	0	163	392	4	396	443	1	444	4067	14	4081
430-530	87	1	88	549	1	550	263	0	263	168	0	168	392	5	397	445	0	445	4208	15	4223
445-545	99	0	99	533	1	534	262	0	262	186	0	186	386	4	390	460	0	460	4388	15	4403
500-600	109	0	109	517	0	517	253	0	253	202	0	202	394	2	396	475	0	475	4387	10	4397

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY SEPTEMBER 6, 2007
PERIOD:		7:00 AM TO 10:00 AM
INTERSECTION:	N/S	SANTA CLARA AVENUE
	E/W	RICE AVENUE & AUTO CENTER DRIVE
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	12	1	13	71	11	82	16	3	19	6	0	6	22	2	24	107	5	112
715-730	18	1	19	66	11	77	15	4	19	3	1	4	45	4	49	191	8	199
730-745	25	0	25	96	9	105	33	0	33	2	0	2	25	3	28	145	5	150
745-800	16	2	18	64	8	72	18	1	19	4	1	5	48	3	51	227	5	232
800-815	14	1	15	75	13	88	10	5	15	8	0	8	43	0	43	165	5	170
815-830	19	1	20	78	16	94	25	4	29	7	4	11	48	3	51	200	14	214
830-845	18	1	19	67	8	75	15	3	18	3	0	3	23	0	23	126	5	131
845-900	13	0	13	73	12	85	18	5	23	6	2	8	38	0	38	157	3	160
900-915	11	0	11	67	10	77	21	9	30	5	5	10	31	4	35	101	3	104
915-930	16	0	16	43	14	57	14	6	20	4	3	7	32	2	34	127	8	135
930-945	10	1	11	55	11	66	11	8	19	6	4	10	55	4	59	115	10	125
945-1000	23	1	24	51	12	63	13	6	19	8	1	9	47	3	50	39	27	66
HOUR TOTALS																		
700-800	71	4	75	297	39	336	82	8	90	15	2	17	140	12	152	670	23	693
715-815	73	4	77	301	41	342	76	10	86	17	2	19	161	10	171	728	23	751
730-830	74	4	78	313	46	359	86	10	96	21	5	26	164	9	173	737	29	766
745-845	67	5	72	284	45	329	68	13	81	22	5	27	162	6	168	718	29	747
800-900	64	3	67	293	49	342	68	17	85	24	6	30	152	3	155	648	27	675
815-915	61	2	63	285	46	331	79	21	100	21	11	32	140	7	147	584	25	609
830-930	58	1	59	250	44	294	68	23	91	18	10	28	124	6	130	511	19	530
845-945	50	1	51	238	47	285	64	28	92	21	14	35	156	10	166	500	24	524
900-1000	60	2	62	216	47	263	59	29	88	23	13	36	165	13	178	382	48	430

PEAK HOUR
745-845

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	73	8	81	90	18	108	33	1	34	55	3	58	4	1	5	13	0	13	502	53	555
715-730	82	6	88	50	12	62	24	2	26	41	3	44	4	1	5	9	0	9	548	53	601
730-745	106	7	113	68	7	75	22	3	25	30	0	30	8	0	8	9	0	9	569	34	603
745-800	191	2	193	85	10	95	59	2	61	53	2	55	19	1	20	19	1	20	803	38	841
800-815	114	9	123	63	18	81	46	3	49	47	1	48	10	2	12	14	3	17	609	60	669
815-830	114	11	125	93	16	109	44	4	48	56	4	60	15	2	17	18	1	19	717	80	797
830-845	102	7	109	83	10	93	44	3	47	63	1	64	10	1	11	10	1	11	564	40	604
845-900	99	10	109	40	11	51	25	1	26	34	6	40	11	0	11	15	0	15	529	50	579
900-915	64	8	72	47	21	68	28	1	29	35	12	47	10	0	10	13	1	14	433	74	507
915-930	92	12	104	51	20	71	28	4	32	50	2	52	12	0	12	15	0	15	484	71	555
930-945	104	12	116	33	15	48	25	1	26	56	7	63	13	0	13	15	0	15	498	73	571
945-1000	74	14	88	48	11	59	33	2	35	62	3	65	8	1	9	14	2	16	420	83	503
HOUR TOTALS																					
700-800	452	23	475	293	47	340	138	8	146	179	8	187	35	3	38	50	1	51	2422	178	2600
715-815	493	24	517	266	47	313	151	10	161	171	6	177	41	4	45	51	4	55	2529	185	2714
730-830	525	29	554	309	51	360	171	12	183	186	7	193	52	5	57	60	5	65	2698	212	2910
745-845	521	29	550	324	54	378	193	12	205	219	8	227	54	6	60	61	6	67	2693	218	2911
800-900	429	37	466	279	55	334	159	11	170	200	12	212	46	5	51	57	5	62	2419	230	2649
815-915	379	36	415	263	58	321	141	9	150	188	23	211	46	3	49	56	3	59	2243	244	2487
830-930	357	37	394	221	62	283	125	9	134	182	21	203	43	1	44	53	2	55	2010	235	2245
845-945	359	42	401	171	67	238	106	7	113	175	27	202	46	0	46	58	1	59	1944	268	2212
900-1000	334	46	380	179	67	246	114	8	122	203	24	227	43	1	44	57	3	60	1835	301	2136

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 6, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S SANTA CLARA AVENUE
E/W RICE AVENUE & AUTO CENTER DRIVE
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	19	1	20	75	16	91	18	4	22	13	2	15	52	1	53	105	6	111
315-330	22	1	23	104	10	114	15	4	19	11	2	13	58	0	58	127	14	141
330-345	19	0	19	143	13	156	17	6	23	7	1	8	79	1	80	150	8	158
345-400	24	2	26	109	13	122	21	2	23	10	2	12	78	0	78	156	3	159
400-415	20	0	20	134	11	145	11	5	16	9	4	13	80	1	81	114	7	121
415-430	14	1	15	154	11	165	10	4	14	5	1	6	73	0	73	115	7	122
430-445	22	1	23	116	19	135	15	2	17	10	0	10	45	4	49	156	8	164
445-500	14	0	14	158	12	170	7	3	10	6	0	6	55	4	59	100	4	104
500-515	17	0	17	125	19	144	17	6	23	9	1	10	75	3	78	142	5	147
515-530	20	0	20	139	10	149	12	0	12	6	1	7	74	1	75	125	2	127
530-545	25	1	26	164	11	175	15	3	18	5	1	6	62	1	63	113	4	117
545-600	17	0	17	76	7	83	16	1	17	7	0	7	71	3	74	111	6	117
HOUR TOTALS																		
300-400	84	4	88	431	52	483	71	16	87	41	7	48	267	2	269	538	31	569
315-415	85	3	88	490	47	537	64	17	81	37	9	46	295	2	297	547	32	579
330-430	77	3	80	540	48	588	59	17	76	31	8	39	310	2	312	535	25	560
345-445	80	4	84	513	54	567	57	13	70	34	7	41	276	5	281	541	25	566
400-500	70	2	72	562	53	615	43	14	57	30	5	35	253	9	262	485	26	511
415-515	67	2	69	553	61	614	49	15	64	30	2	32	248	11	259	513	24	537
430-530	73	1	74	538	60	598	51	11	62	31	2	33	249	12	261	523	19	542
445-545	76	1	77	586	52	638	51	12	63	26	3	29	266	9	275	480	15	495
500-600	79	1	80	504	47	551	60	10	70	27	3	30	282	8	290	491	17	508

PEAK HOUR
430-530

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	176	17	193	95	13	108	78	3	81	104	2	106	32	1	33	34	0	34	801	66	867
315-330	160	21	181	96	14	110	71	6	77	82	2	84	9	0	9	24	0	24	779	74	853
330-345	323	27	350	108	21	129	89	0	89	113	3	116	24	1	25	41	2	43	1113	83	1196
345-400	208	16	224	73	19	92	69	1	70	104	4	108	18	0	18	27	0	27	897	62	959
400-415	207	8	215	103	13	116	85	4	89	106	5	111	10	0	10	29	1	30	908	59	967
415-430	227	13	240	102	11	113	80	2	82	156	4	160	20	1	21	38	1	39	994	56	1050
430-445	234	9	243	112	9	121	91	4	95	115	2	117	22	0	22	56	0	56	994	58	1052
445-500	193	16	209	98	7	105	69	5	74	103	5	108	14	0	14	23	1	24	840	57	897
500-515	249	13	262	125	14	139	102	2	104	135	3	138	19	1	20	54	1	55	1069	68	1137
515-530	285	7	292	122	8	130	126	1	127	132	3	135	24	1	25	50	0	50	1115	34	1149
530-545	185	8	193	109	7	116	100	2	102	140	3	143	20	1	21	45	3	48	983	45	1028
545-600	180	9	189	107	17	124	56	0	56	100	1	101	22	0	22	36	1	37	799	45	844
HOUR TOTALS																					
300-400	867	81	948	372	67	439	307	10	317	403	11	414	83	2	85	126	2	128	3590	285	3875
315-415	898	72	970	380	67	447	314	11	325	405	14	419	61	1	62	121	3	124	3697	278	3975
330-430	965	64	1029	386	64	450	323	7	330	479	16	495	72	2	74	135	4	139	3912	260	4172
345-445	876	46	922	390	52	442	325	11	336	481	15	496	70	1	71	150	2	152	3793	235	4028
400-500	861	46	907	415	40	455	325	15	340	480	16	496	66	1	67	146	3	149	3736	230	3966
415-515	903	51	954	437	41	478	342	13	355	509	14	523	75	2	77	171	3	174	3897	239	4136
430-530	961	45	1006	457	38	495	388	12	400	485	13	498	79	2	81	183	2	185	4018	217	4235
445-545	912	44	956	454	36	490	397	10	407	510	14	524	77	3	80	172	5	177	4007	204	4211
500-600	899	37	936	463	46	509	384	5	389	507	10	517	85	3	88	185	5	190	3966	192	4158

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY SEPTEMBER 20, 2007
PERIOD:		7:00 AM TO 10:00 AM
INTERSECTION:	N/S	DUPONT AVENUE
	E/W	CHANNEL ISLANDS BOULEVARD
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	11	0	11	15	0	15	18	0	18	5	0	5	19	1	20	32	3	35
715-730	15	0	15	27	0	27	18	0	18	8	0	8	28	0	28	62	0	62
730-745	10	0	10	27	0	27	23	0	23	12	0	12	22	0	22	75	0	75
745-800	15	0	15	45	0	45	30	0	30	8	0	8	27	1	28	62	5	67
800-815	10	0	10	29	0	29	11	0	11	9	1	10	24	1	25	46	1	47
815-830	7	0	7	20	0	20	14	1	15	3	0	3	22	1	23	51	2	53
830-845	8	0	8	33	0	33	11	0	11	6	0	6	23	1	24	66	1	67
845-900	6	0	6	37	0	37	13	0	13	3	2	5	13	0	13	78	2	80
900-915	6	0	6	18	0	18	3	0	3	6	0	6	6	0	6	46	2	48
915-930	4	0	4	18	0	18	6	0	6	4	0	4	18	3	21	61	2	63
930-945	5	0	5	17	0	17	11	0	11	0	0	0	16	2	18	53	1	54
945-1000	4	1	5	21	0	21	7	0	7	6	0	6	17	0	17	46	3	49
HOUR TOTALS																		
700-800	51	0	51	114	0	114	89	0	89	33	0	33	96	2	98	231	8	239
715-815	50	0	50	128	0	128	82	0	82	37	1	38	101	2	103	245	6	251
730-830	42	0	42	121	0	121	78	1	79	32	1	33	95	3	98	234	8	242
745-845	40	0	40	127	0	127	66	1	67	26	1	27	96	4	100	225	9	234
800-900	31	0	31	119	0	119	49	1	50	21	3	24	82	3	85	241	6	247
815-915	27	0	27	108	0	108	41	1	42	18	2	20	64	2	66	241	7	248
830-930	24	0	24	106	0	106	33	0	33	19	2	21	60	4	64	251	7	258
845-945	21	0	21	90	0	90	33	0	33	13	2	15	53	5	58	238	7	245
900-1000	19	1	20	74	0	74	27	0	27	16	0	16	57	5	62	206	8	214

PEAK HOUR
715-815

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	78	0	78	5	0	5	0	0	0	12	0	12	5	0	5	4	0	4	204	4	208
715-730	92	2	94	9	1	10	1	0	1	3	0	3	1	0	1	1	1	2	265	4	269
730-745	109	1	110	16	0	16	0	0	0	3	0	3	6	0	6	2	0	2	305	1	306
745-800	79	1	80	12	0	12	1	0	1	12	0	12	14	0	14	6	0	6	311	7	318
800-815	90	1	91	11	1	12	0	0	0	10	0	10	3	0	3	2	0	2	245	5	250
815-830	72	7	79	7	1	8	0	0	0	10	0	10	3	0	3	0	0	0	209	12	221
830-845	42	1	43	10	0	10	0	0	0	3	2	5	5	0	5	5	0	5	212	5	217
845-900	62	4	66	23	0	23	0	0	0	19	0	19	0	0	0	0	0	0	254	8	262
900-915	40	2	42	11	1	12	0	0	0	15	1	16	2	0	2	1	0	1	154	6	160
915-930	44	0	44	11	0	11	0	0	0	7	1	8	0	0	0	0	0	0	173	6	179
930-945	41	1	42	15	0	15	0	0	0	3	1	4	0	0	0	0	0	0	161	5	166
945-1000	35	7	42	6	0	6	0	0	0	3	0	3	0	0	0	0	0	0	145	11	156
HOUR TOTALS																					
700-800	358	4	362	42	1	43	2	0	2	30	0	30	26	0	26	13	1	14	1085	16	1101
715-815	370	5	375	48	2	50	2	0	2	28	0	28	24	0	24	11	1	12	1126	17	1143
730-830	350	10	360	46	2	48	1	0	1	35	0	35	26	0	26	10	0	10	1070	25	1095
745-845	283	10	293	40	2	42	1	0	1	35	2	37	25	0	25	13	0	13	977	29	1006
800-900	266	13	279	51	2	53	0	0	0	42	2	44	11	0	11	7	0	7	920	30	950
815-915	216	14	230	51	2	53	0	0	0	47	3	50	10	0	10	6	0	6	829	31	860
830-930	188	7	195	55	1	56	0	0	0	44	4	48	7	0	7	6	0	6	793	25	818
845-945	187	7	194	60	1	61	0	0	0	44	3	47	2	0	2	1	0	1	742	25	767
900-1000	160	10	170	43	1	44	0	0	0	28	3	31	2	0	2	1	0	1	633	28	661

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY SEPTEMBER 20, 2007
PERIOD:		3:00 PM TO 6:00 PM
INTERSECTION:	N/S	DUPONT AVENUE
	E/W	CHANNEL ISLANDS BOULEVARD
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	12	0	12	33	0	33	11	0	11	15	0	15	19	0	19	112	0	112
315-330	11	0	11	28	0	28	6	0	6	13	0	13	29	0	29	107	2	109
330-345	5	0	5	30	0	30	11	0	11	24	0	24	24	0	24	139	0	139
345-400	10	0	10	20	0	20	16	0	16	22	0	22	29	1	30	125	0	125
400-415	6	0	6	30	0	30	8	0	8	20	0	20	24	1	25	122	2	124
415-430	11	0	11	43	0	43	10	0	10	28	0	28	26	0	26	155	1	156
430-445	5	0	5	40	0	40	13	0	13	36	0	36	41	0	41	121	1	122
445-500	16	0	16	41	0	41	16	0	16	42	0	42	40	0	40	171	1	172
500-515	10	1	11	42	0	42	11	0	11	42	0	42	61	0	61	184	1	185
515-530	7	0	7	43	0	43	14	0	14	37	0	37	39	0	39	172	1	173
530-545	10	0	10	29	0	29	15	0	15	28	0	28	33	0	33	153	1	154
545-600	8	0	8	32	0	32	11	0	11	24	0	24	40	0	40	165	0	165
HOUR TOTALS																		
300-400	38	0	38	111	0	111	44	0	44	74	0	74	101	1	102	483	2	485
315-415	32	0	32	108	0	108	41	0	41	79	0	79	106	2	108	493	4	497
330-430	32	0	32	123	0	123	45	0	45	94	0	94	103	2	105	541	3	544
345-445	32	0	32	133	0	133	47	0	47	106	0	106	120	2	122	523	4	527
400-500	38	0	38	154	0	154	47	0	47	126	0	126	131	1	132	569	5	574
415-515	42	1	43	166	0	166	50	0	50	148	0	148	168	0	168	631	4	635
430-530	38	1	39	166	0	166	54	0	54	157	0	157	181	0	181	648	4	652
445-545	43	1	44	155	0	155	56	0	56	149	0	149	173	0	173	680	4	684
500-600	35	1	36	146	0	146	51	0	51	131	0	131	173	0	173	674	3	677

PEAK HOUR
415-515

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	66	0	66	15	0	15	0	0	0	20	0	20	0	0	0	1	0	1	304	0	304
315-330	90	1	91	21	1	22	1	0	1	38	0	38	6	0	6	0	0	0	350	4	354
330-345	95	2	97	39	0	39	0	0	0	24	0	24	9	0	9	2	0	2	402	2	404
345-400	96	3	99	28	0	28	0	0	0	38	0	38	5	0	5	2	0	2	391	4	395
400-415	59	1	60	33	0	33	0	0	0	46	0	46	5	0	5	4	0	4	357	4	361
415-430	79	0	79	23	0	23	0	0	0	89	0	89	12	0	12	17	0	17	493	1	494
430-445	86	3	89	23	0	23	2	0	2	46	0	46	9	0	9	6	0	6	428	4	432
445-500	85	0	85	31	3	34	0	0	0	53	0	53	13	0	13	13	0	13	521	4	525
500-515	69	2	71	27	0	27	0	0	0	55	0	55	21	0	21	14	0	14	536	4	540
515-530	70	2	72	10	0	10	0	0	0	43	0	43	16	0	16	5	0	5	456	3	459
530-545	72	0	72	11	1	12	0	0	0	54	0	54	22	0	22	12	0	12	439	2	441
545-600	67	0	67	16	0	16	0	0	0	59	0	59	20	0	20	9	0	9	451	0	451
HOUR TOTALS																					
300-400	347	6	353	103	1	104	1	0	1	120	0	120	20	0	20	5	0	5	1447	10	1457
315-415	340	7	347	121	1	122	1	0	1	146	0	146	25	0	25	8	0	8	1500	14	1514
330-430	329	6	335	123	0	123	0	0	0	197	0	197	31	0	31	25	0	25	1643	11	1654
345-445	320	7	327	107	0	107	2	0	2	219	0	219	31	0	31	29	0	29	1669	13	1682
400-500	309	4	313	110	3	113	2	0	2	234	0	234	39	0	39	40	0	40	1799	13	1812
415-515	319	5	324	104	3	107	2	0	2	243	0	243	55	0	55	50	0	50	1978	13	1991
430-530	310	7	317	91	3	94	2	0	2	197	0	197	59	0	59	38	0	38	1941	15	1956
445-545	296	4	300	79	4	83	0	0	0	205	0	205	72	0	72	44	0	44	1952	13	1965
500-600	278	4	282	64	1	65	0	0	0	211	0	211	79	0	79	40	0	40	1882	9	1891

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY SEPTEMBER 6, 2007
PERIOD:		7:00 AM TO 10:00 AM
INTERSECTION:	N/S	RICE AVENUE
	E/W	GONZALES ROAD
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	69	0	69	265	20	285	0	0	0	0	0	0	0	0	0	0	0	0
715-730	84	1	85	333	18	351	0	0	0	0	0	0	0	0	0	0	0	0
730-745	102	3	105	321	16	337	0	0	0	0	0	0	0	0	0	0	0	0
745-800	163	2	165	292	14	306	0	0	0	0	0	0	0	0	0	0	0	0
800-815	196	1	197	304	34	338	0	0	0	0	0	0	0	0	0	0	0	0
815-830	161	2	163	252	18	270	0	0	0	0	0	0	0	0	0	0	0	0
830-845	141	2	143	181	26	207	0	0	0	0	0	0	0	0	0	0	0	0
845-900	133	2	135	163	12	175	0	0	0	0	0	0	0	0	0	0	0	0
900-915	74	3	77	182	22	204	0	0	0	0	0	0	0	0	0	0	0	0
915-930	52	3	55	109	15	124	0	0	0	0	0	0	0	0	0	0	0	0
930-945	37	9	46	137	31	168	0	0	0	0	0	0	0	0	0	0	0	0
945-1000	20	2	22	124	16	140	0	0	0	0	0	0	0	0	0	0	0	0
HOUR TOTALS																		
700-800	418	6	424	1211	68	1279	0	0	0	0	0	0	0	0	0	0	0	0
715-815	545	7	552	1250	82	1332	0	0	0	0	0	0	0	0	0	0	0	0
730-830	622	8	630	1169	82	1251	0	0	0	0	0	0	0	0	0	0	0	0
745-845	661	7	668	1029	92	1121	0	0	0	0	0	0	0	0	0	0	0	0
800-900	631	7	638	900	90	990	0	0	0	0	0	0	0	0	0	0	0	0
815-915	509	9	518	778	78	856	0	0	0	0	0	0	0	0	0	0	0	0
830-930	400	10	410	635	75	710	0	0	0	0	0	0	0	0	0	0	0	0
845-945	296	17	313	591	80	671	0	0	0	0	0	0	0	0	0	0	0	0
900-1000	183	17	200	552	84	636	0	0	0	0	0	0	0	0	0	0	0	0

PEAK HOUR
730-830

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	0	0	0	176	30	206	31	0	31	45	1	46	0	0	0	86	3	89	672	54	726
715-730	0	0	0	221	9	230	30	1	31	44	1	45	0	0	0	90	0	90	802	30	832
730-745	0	0	0	258	17	275	37	2	39	61	2	63	0	0	0	120	1	121	899	41	940
745-800	0	0	0	220	18	238	65	0	65	70	1	71	0	0	0	103	1	104	913	36	949
800-815	0	0	0	209	23	232	50	1	51	36	1	37	0	0	0	112	2	114	907	62	969
815-830	0	0	0	179	28	207	54	0	54	40	3	43	0	0	0	105	0	105	791	51	842
830-845	0	0	0	157	15	172	34	1	35	50	3	53	0	0	0	63	1	64	626	48	674
845-900	0	0	0	141	35	176	41	4	45	47	1	48	0	0	0	48	0	48	573	54	627
900-915	0	0	0	134	30	164	35	2	37	26	3	29	0	0	0	67	0	67	518	60	578
915-930	0	0	0	137	44	181	16	2	18	43	5	48	0	0	0	53	2	55	410	71	481
930-945	0	0	0	130	24	154	47	3	50	42	4	46	0	0	0	85	3	88	478	74	552
945-1000	0	0	0	135	31	166	40	1	41	36	0	36	0	0	0	82	1	83	437	51	488
HOUR TOTALS																					
700-800	0	0	0	875	74	949	163	3	166	220	5	225	0	0	0	399	5	404	3286	161	3447
715-815	0	0	0	908	67	975	182	4	186	211	5	216	0	0	0	425	4	429	3521	169	3690
730-830	0	0	0	866	86	952	206	3	209	207	7	214	0	0	0	440	4	444	3510	190	3700
745-845	0	0	0	765	84	849	203	2	205	196	8	204	0	0	0	383	4	387	3237	197	3434
800-900	0	0	0	686	101	787	179	6	185	173	8	181	0	0	0	328	3	331	2897	215	3112
815-915	0	0	0	611	108	719	164	7	171	163	10	173	0	0	0	283	1	284	2508	213	2721
830-930	0	0	0	569	124	693	126	9	135	166	12	178	0	0	0	231	3	234	2127	233	2360
845-945	0	0	0	542	133	675	139	11	150	158	13	171	0	0	0	253	5	258	1979	259	2238
900-1000	0	0	0	536	129	665	138	8	146	147	12	159	0	0	0	287	6	293	1843	256	2099

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY SEPTEMBER 6, 2007
PERIOD:		3:00 PM TO 6:00 PM
INTERSECTION:	N/S	RICE AVENUE
	E/W	GONZALES ROAD
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	102	0	102	201	30	231	0	0	0	0	0	0	0	0	0	0	0	0
315-330	115	0	115	269	29	298	0	0	0	0	0	0	0	0	0	0	0	0
330-345	131	0	131	282	19	301	0	0	0	0	0	0	0	0	0	0	0	0
345-400	130	0	130	272	17	289	0	0	0	0	0	0	0	0	0	0	0	0
400-415	123	2	125	310	26	336	0	0	0	0	0	0	0	0	0	0	0	0
415-430	106	1	107	238	12	250	0	0	0	0	0	0	0	0	0	0	0	0
430-445	105	0	105	287	23	310	0	0	0	0	0	0	0	0	0	0	0	0
445-500	100	1	101	281	23	304	0	0	0	0	0	0	0	0	0	0	0	0
500-515	114	1	115	361	20	381	0	0	0	0	0	0	0	0	0	0	0	0
515-530	104	0	104	311	21	332	0	0	0	0	0	0	0	0	0	0	0	0
530-545	96	0	96	310	16	326	0	0	0	0	0	0	0	0	0	0	0	0
545-600	73	0	73	236	25	261	0	0	0	0	0	0	0	0	0	0	0	0
HOUR TOTALS																		
300-400	478	0	478	1024	95	1119	0	0	0	0	0	0	0	0	0	0	0	0
315-415	499	2	501	1133	91	1224	0	0	0	0	0	0	0	0	0	0	0	0
330-430	490	3	493	1102	74	1176	0	0	0	0	0	0	0	0	0	0	0	0
345-445	464	3	467	1107	78	1185	0	0	0	0	0	0	0	0	0	0	0	0
400-500	434	4	438	1116	84	1200	0	0	0	0	0	0	0	0	0	0	0	0
415-515	425	3	428	1167	78	1245	0	0	0	0	0	0	0	0	0	0	0	0
430-530	423	2	425	1240	87	1327	0	0	0	0	0	0	0	0	0	0	0	0
445-545	414	2	416	1263	80	1343	0	0	0	0	0	0	0	0	0	0	0	0
500-600	387	1	388	1218	82	1300	0	0	0	0	0	0	0	0	0	0	0	0

PEAK HOUR
430-530

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	0	0	0	244	32	276	57	0	57	50	1	51	0	0	0	123	0	123	777	63	840
315-330	0	0	0	260	42	302	64	1	65	41	1	42	0	0	0	118	0	118	867	73	940
330-345	0	0	0	254	30	284	65	2	67	32	1	33	0	0	0	137	2	139	901	54	955
345-400	0	0	0	227	28	255	79	1	80	51	0	51	0	0	0	140	0	140	899	46	945
400-415	0	0	0	271	25	296	84	1	85	66	2	68	0	0	0	185	0	185	1039	56	1095
415-430	0	0	0	283	28	311	77	1	78	61	4	65	0	0	0	107	0	107	872	46	918
430-445	0	0	0	298	16	314	80	0	80	74	0	74	0	0	0	178	0	178	1022	39	1061
445-500	0	0	0	286	27	313	83	2	85	56	2	58	0	0	0	148	0	148	954	55	1009
500-515	0	0	0	251	14	265	86	1	87	87	2	89	0	0	0	203	0	203	1102	38	1140
515-530	0	0	0	202	11	213	92	0	92	53	1	54	0	0	0	163	0	163	925	33	958
530-545	0	0	0	217	15	232	91	1	92	58	0	58	0	0	0	196	0	196	968	32	1000
545-600	0	0	0	215	23	238	88	0	88	59	1	60	0	0	0	145	0	145	816	49	865
HOUR TOTALS																					
300-400	0	0	0	985	132	1117	265	4	269	174	3	177	0	0	0	518	2	520	3444	236	3680
315-415	0	0	0	1012	125	1137	292	5	297	190	4	194	0	0	0	580	2	582	3706	229	3935
330-430	0	0	0	1035	111	1146	305	5	310	210	7	217	0	0	0	569	2	571	3711	202	3913
345-445	0	0	0	1079	97	1176	320	3	323	252	6	258	0	0	0	610	0	610	3832	187	4019
400-500	0	0	0	1138	96	1234	324	4	328	257	8	265	0	0	0	618	0	618	3887	196	4083
415-515	0	0	0	1118	85	1203	326	4	330	278	8	286	0	0	0	636	0	636	3950	178	4128
430-530	0	0	0	1037	68	1105	341	3	344	270	5	275	0	0	0	692	0	692	4003	165	4168
445-545	0	0	0	956	67	1023	352	4	356	254	5	259	0	0	0	710	0	710	3949	158	4107
500-600	0	0	0	885	63	948	357	2	359	257	4	261	0	0	0	707	0	707	3811	152	3963

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY SEPTEMBER 6, 2007
PERIOD:		7:00 AM TO 10:00 AM
INTERSECTION:	N/S	ROSE AVENUE
	E/W	GONZALES ROAD
CITY:		OXNARD

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	57	0	57	209	9	218	43	0	43	31	0	31	81	2	83	16	0	16
715-730	60	1	61	285	9	294	64	0	64	22	0	22	65	1	66	12	0	12
730-745	61	2	63	257	1	258	61	0	61	21	0	21	71	0	71	22	0	22
745-800	83	1	84	325	2	327	30	1	31	28	0	28	101	1	102	18	0	18
800-815	83	1	84	207	10	217	113	0	113	42	1	43	73	1	74	17	0	17
815-830	63	2	65	214	5	219	106	0	106	44	1	45	94	1	95	22	0	22
830-845	56	0	56	195	10	205	124	0	124	40	1	41	94	1	95	28	0	28
845-900	58	1	59	192	11	203	84	2	86	22	0	22	112	0	112	32	0	32
900-915	55	0	55	202	7	209	88	0	88	58	0	58	124	2	126	20	0	20
915-930	67	0	67	177	5	182	48	0	48	36	0	36	104	0	104	36	0	36
930-945	59	0	59	173	2	175	70	0	70	55	1	56	135	2	137	27	0	27
945-1000	65	2	67	199	7	206	80	0	80	37	1	38	94	1	95	31	0	31
HOUR TOTALS																		
700-800	261	4	265	1076	21	1097	198	1	199	102	0	102	318	4	322	68	0	68
715-815	287	5	292	1074	22	1096	268	1	269	113	1	114	310	3	313	69	0	69
730-830	290	6	296	1003	18	1021	310	1	311	135	2	137	339	3	342	79	0	79
745-845	285	4	289	941	27	968	373	1	374	154	3	157	362	4	366	85	0	85
800-900	260	4	264	808	36	844	427	2	429	148	3	151	373	3	376	99	0	99
815-915	232	3	235	803	33	836	402	2	404	164	2	166	424	4	428	102	0	102
830-930	236	1	237	766	33	799	344	2	346	156	1	157	434	3	437	116	0	116
845-945	239	1	240	744	25	769	290	2	292	171	1	172	475	4	479	115	0	115
900-1000	246	2	248	751	21	772	286	0	286	186	2	188	457	5	462	114	0	114

PEAK HOUR
730-830

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	18	1	19	226	8	234	47	0	47	36	0	36	104	1	105	131	0	131	999	21	1020
715-730	19	0	19	284	10	294	47	1	48	44	0	44	134	1	135	183	4	187	1219	27	1246
730-745	27	0	27	332	19	351	63	2	65	51	0	51	220	4	224	203	0	203	1389	28	1417
745-800	65	0	65	250	3	253	73	0	73	73	1	74	219	3	222	163	1	164	1428	13	1441
800-815	44	0	44	254	17	271	75	0	75	57	1	58	206	0	206	163	2	165	1334	33	1367
815-830	64	0	64	241	9	250	53	0	53	57	0	57	201	5	206	172	0	172	1331	23	1354
830-845	43	1	44	219	27	246	59	3	62	44	0	44	175	0	175	144	2	146	1221	45	1266
845-900	30	0	30	183	10	193	49	1	50	20	0	20	115	2	117	89	2	91	986	29	1015
900-915	41	0	41	197	17	214	81	0	81	29	0	29	104	4	108	118	3	121	1117	33	1150
915-930	49	0	49	195	17	212	29	0	29	28	1	29	108	4	112	104	3	107	981	30	1011
930-945	46	1	47	198	10	208	54	0	54	28	1	29	110	4	114	95	1	96	1050	22	1072
945-1000	47	1	48	160	12	172	63	0	63	20	1	21	113	3	116	104	3	107	1013	31	1044
HOUR TOTALS																					
700-800	129	1	130	1092	40	1132	230	3	233	204	1	205	677	9	686	680	5	685	5035	89	5124
715-815	155	0	155	1120	49	1169	258	3	261	225	2	227	779	8	787	712	7	719	5370	101	5471
730-830	200	0	200	1077	48	1125	264	2	266	238	2	240	846	12	858	701	3	704	5482	97	5579
745-845	216	1	217	964	56	1020	260	3	263	231	2	233	801	8	809	642	5	647	5314	114	5428
800-900	181	1	182	897	63	960	236	4	240	178	1	179	697	7	704	568	6	574	4872	130	5002
815-915	178	1	179	840	63	903	242	4	246	150	0	150	595	11	606	523	7	530	4655	130	4785
830-930	163	1	164	794	71	865	218	4	222	121	1	122	502	10	512	455	10	465	4305	137	4442
845-945	166	1	167	773	54	827	213	1	214	105	2	107	437	14	451	406	9	415	4134	114	4248
900-1000	183	2	185	750	56	806	227	0	227	105	3	108	435	15	450	421	10	431	4161	116	4277

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 6, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S ROSE AVENUE
E/W GONZALES ROAD
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	131	0	131	304	7	311	89	0	89	54	1	55	217	3	220	45	1	46
315-330	148	1	149	352	12	364	135	0	135	70	1	71	240	0	240	41	0	41
330-345	118	1	119	309	6	315	102	0	102	65	0	65	209	0	209	46	0	46
345-400	140	2	142	354	7	361	86	0	86	58	0	58	216	0	216	38	0	38
400-415	189	0	189	351	6	357	78	0	78	43	0	43	218	0	218	30	0	30
415-430	171	1	172	342	3	345	100	0	100	90	0	90	219	1	220	58	0	58
430-445	174	1	175	343	5	348	99	0	99	77	1	78	250	0	250	56	1	57
445-500	134	1	135	326	1	327	78	0	78	53	0	53	235	0	235	30	0	30
500-515	171	0	171	381	6	387	90	0	90	93	0	93	277	0	277	46	0	46
515-530	131	1	132	317	0	317	50	0	50	43	3	46	311	0	311	31	0	31
530-545	178	0	178	443	3	446	91	0	91	75	0	75	261	0	261	46	0	46
545-600	122	0	122	390	3	393	100	0	100	72	0	72	215	0	215	56	0	56
HOUR TOTALS																		
300-400	537	4	541	1319	32	1351	412	0	412	247	2	249	882	3	885	170	1	171
315-415	595	4	599	1366	31	1397	401	0	401	236	1	237	883	0	883	155	0	155
330-430	618	4	622	1356	22	1378	366	0	366	256	0	256	862	1	863	172	0	172
345-445	674	4	678	1390	21	1411	363	0	363	268	1	269	903	1	904	182	1	183
400-500	668	3	671	1362	15	1377	355	0	355	263	1	264	922	1	923	174	1	175
415-515	650	3	653	1392	15	1407	367	0	367	313	1	314	981	1	982	190	1	191
430-530	610	3	613	1367	12	1379	317	0	317	266	4	270	1073	0	1073	163	1	164
445-545	614	2	616	1467	10	1477	309	0	309	264	3	267	1084	0	1084	153	0	153
500-600	602	1	603	1531	12	1543	331	0	331	283	3	286	1064	0	1064	179	0	179

PEAK HOUR
445-545

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	31	2	33	258	16	274	94	0	94	35	0	35	125	0	125	121	3	124	1504	33	1537
315-330	43	0	43	247	11	258	113	1	114	63	1	64	146	1	147	133	4	137	1731	32	1763
330-345	47	0	47	281	11	292	119	0	119	97	1	98	200	2	202	170	0	170	1763	21	1784
345-400	58	1	59	239	9	248	79	0	79	55	0	55	152	1	153	136	1	137	1611	21	1632
400-415	38	0	38	317	8	325	86	0	86	56	1	57	176	0	176	163	2	165	1745	17	1762
415-430	39	0	39	276	7	283	99	1	100	33	1	34	137	3	140	109	0	109	1673	17	1690
430-445	29	0	29	256	10	266	80	0	80	28	0	28	104	0	104	107	1	108	1603	19	1622
445-500	27	0	27	312	14	326	96	0	96	43	1	44	154	2	156	110	0	110	1598	19	1617
500-515	18	1	19	251	4	255	101	0	101	48	0	48	145	0	145	143	2	145	1764	13	1777
515-530	35	0	35	316	8	324	110	0	110	43	0	43	145	1	146	165	0	165	1697	13	1710
530-545	21	0	21	275	10	285	89	0	89	62	0	62	136	1	137	170	0	170	1847	14	1861
545-600	22	-3	19	192	7	199	48	1	49	21	0	21	106	0	106	124	0	124	1468	8	1476
HOUR TOTALS																					
300-400	179	3	182	1025	47	1072	405	1	406	250	2	252	623	4	627	560	8	568	6609	107	6716
315-415	186	1	187	1084	39	1123	397	1	398	271	3	274	674	4	678	602	7	609	6850	91	6941
330-430	182	1	183	1113	35	1148	383	1	384	241	3	244	665	6	671	578	3	581	6792	76	6868
345-445	164	1	165	1088	34	1122	344	1	345	172	2	174	569	4	573	515	4	519	6632	74	6706
400-500	133	0	133	1161	39	1200	361	1	362	160	3	163	571	5	576	489	3	492	6619	72	6691
415-515	113	1	114	1095	35	1130	376	1	377	152	2	154	540	5	545	469	3	472	6638	68	6706
430-530	109	1	110	1135	36	1171	387	0	387	162	1	163	548	3	551	525	3	528	6662	64	6726
445-545	101	1	102	1154	36	1190	396	0	396	196	1	197	580	4	584	588	2	590	6906	59	6965
500-600	96	-2	94	1034	29	1063	348	1	349	174	0	174	532	2	534	602	2	604	6776	48	6824

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY SEPTEMBER 6, 2007
PERIOD:		7:00 AM TO 10:00 AM
INTERSECTION:	N/S	ROSE AVENUE
	E/W	AUTO CENTER DRIVE
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	2	0	2	154	0	154	28	0	28	12	0	12	0	0	0	30	0	30
715-730	2	0	2	154	3	157	28	0	28	14	0	14	1	1	2	34	0	34
730-745	4	0	4	193	4	197	25	0	25	25	0	25	1	0	1	38	2	40
745-800	1	0	1	201	3	204	55	0	55	25	0	25	6	1	7	28	3	31
800-815	4	0	4	194	7	201	37	0	37	22	0	22	7	0	7	43	4	47
815-830	14	0	14	184	4	188	24	1	25	17	3	20	8	0	8	46	0	46
830-845	6	0	6	172	7	179	47	0	47	22	2	24	5	0	5	48	5	53
845-900	8	0	8	154	5	159	29	0	29	26	1	27	7	0	7	71	7	78
900-915	4	0	4	112	7	119	14	2	16	17	3	20	5	0	5	52	9	61
915-930	1	1	2	72	5	77	24	0	24	14	0	14	5	1	6	60	6	66
930-945	1	0	1	85	7	92	28	4	32	28	0	28	5	0	5	109	9	118
945-1000	1	0	1	69	4	73	29	0	29	21	1	22	15	0	15	106	1	107
HOUR TOTALS																		
700-800	9	0	9	702	10	712	136	0	136	76	0	76	8	2	10	130	5	135
715-815	11	0	11	742	17	759	145	0	145	86	0	86	15	2	17	143	9	152
730-830	23	0	23	772	18	790	141	1	142	89	3	92	22	1	23	155	9	164
745-845	25	0	25	751	21	772	163	1	164	86	5	91	26	1	27	165	12	177
800-900	32	0	32	704	23	727	137	1	138	87	6	93	27	0	27	208	16	224
815-915	32	0	32	622	23	645	114	3	117	82	9	91	25	0	25	217	21	238
830-930	19	1	20	510	24	534	114	2	116	79	6	85	22	1	23	231	27	258
845-945	14	1	15	423	24	447	95	6	101	85	4	89	22	1	23	292	31	323
900-1000	7	1	8	338	23	361	95	6	101	80	4	84	30	1	31	327	25	352

PEAK HOUR
745-845

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	41	1	42	70	0	70	13	0	13	18	1	19	4	0	4	3	0	3	375	2	377
715-730	84	0	84	125	6	131	23	0	23	28	0	28	3	0	3	0	0	0	496	10	506
730-745	68	0	68	120	2	122	17	0	17	32	1	33	9	0	9	1	0	1	533	9	542
745-800	106	2	108	156	3	159	38	1	39	42	0	42	15	0	15	5	0	5	678	13	691
800-815	111	2	113	175	1	176	20	0	20	24	0	24	26	0	26	16	0	16	679	14	693
815-830	113	2	115	147	3	150	29	0	29	24	0	24	4	0	4	20	0	20	630	13	643
830-845	104	3	107	119	2	121	14	0	14	17	0	17	7	0	7	5	0	5	566	19	585
845-900	112	2	114	74	5	79	39	0	39	23	0	23	5	0	5	2	0	2	550	20	570
900-915	118	0	118	55	5	60	15	0	15	26	0	26	8	0	8	0	0	0	426	26	452
915-930	125	1	126	67	4	71	15	2	17	19	0	19	6	0	6	0	0	0	408	20	428
930-945	144	2	146	52	3	55	21	1	22	26	1	27	4	0	4	0	0	0	503	27	530
945-1000	141	3	144	83	3	86	21	1	22	19	0	19	8	0	8	1	0	1	514	13	527
HOUR TOTALS																					
700-800	299	3	302	471	11	482	91	1	92	120	2	122	31	0	31	9	0	9	2082	34	2116
715-815	369	4	373	576	12	588	98	1	99	126	1	127	53	0	53	22	0	22	2386	46	2432
730-830	398	6	404	598	9	607	104	1	105	122	1	123	54	0	54	42	0	42	2520	49	2569
745-845	434	9	443	597	9	606	101	1	102	107	0	107	52	0	52	46	0	46	2553	59	2612
800-900	440	9	449	515	11	526	102	0	102	88	0	88	42	0	42	43	0	43	2425	66	2491
815-915	447	7	454	395	15	410	97	0	97	90	0	90	24	0	24	27	0	27	2172	78	2250
830-930	459	6	465	315	16	331	83	2	85	85	0	85	26	0	26	7	0	7	1950	85	2035
845-945	499	5	504	248	17	265	90	3	93	94	1	95	23	0	23	2	0	2	1887	93	1980
900-1000	528	6	534	257	15	272	72	4	76	90	1	91	26	0	26	1	0	1	1851	86	1937

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 6, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S ROSE AVENUE
E/W AUTO CENTER DRIVE
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	3	1	4	134	5	139	40	2	42	38	0	38	21	0	21	237	4	241
315-330	9	1	10	177	10	187	40	0	40	42	1	43	18	0	18	139	1	140
330-345	3	0	3	140	4	144	40	0	40	44	1	45	20	0	20	229	4	233
345-400	7	0	7	147	9	156	42	0	42	36	1	37	17	1	18	188	3	191
400-415	2	0	2	156	5	161	55	1	56	55	0	55	10	0	10	227	1	228
415-430	3	0	3	176	2	178	43	2	45	40	0	40	10	1	11	193	0	193
430-445	1	0	1	143	1	144	34	0	34	66	0	66	21	0	21	215	1	216
445-500	6	0	6	138	4	142	54	0	54	41	0	41	12	0	12	219	0	219
500-515	3	0	3	187	2	189	39	0	39	62	1	63	21	0	21	289	3	292
515-530	2	0	2	131	5	136	48	0	48	43	0	43	17	0	17	197	2	199
530-545	0	0	0	169	2	171	42	0	42	56	0	56	18	0	18	210	0	210
545-600	4	0	4	171	6	177	27	0	27	60	1	61	14	0	14	213	1	214
HOUR TOTALS																		
300-400	22	2	24	598	28	626	162	2	164	160	3	163	76	1	77	793	12	805
315-415	21	1	22	620	28	648	177	1	178	177	3	180	65	1	66	783	9	792
330-430	15	0	15	619	20	639	180	3	183	175	2	177	57	2	59	837	8	845
345-445	13	0	13	622	17	639	174	3	177	197	1	198	58	2	60	823	5	828
400-500	12	0	12	613	12	625	186	3	189	202	0	202	53	1	54	854	2	856
415-515	13	0	13	644	9	653	170	2	172	209	1	210	64	1	65	916	4	920
430-530	12	0	12	599	12	611	175	0	175	212	1	213	71	0	71	920	6	926
445-545	11	0	11	625	13	638	183	0	183	202	1	203	68	0	68	915	5	920
500-600	9	0	9	658	15	673	156	0	156	221	2	223	70	0	70	909	6	915

PEAK HOUR
430-530

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	172	4	176	155	3	158	28	0	28	20	0	20	11	0	11	9	0	9	868	19	887
315-330	166	1	167	140	2	142	39	0	39	32	0	32	6	0	6	3	0	3	811	16	827
330-345	196	1	197	163	3	166	42	1	43	34	0	34	18	0	18	1	0	1	930	14	944
345-400	191	2	193	178	6	184	49	2	51	36	0	36	11	0	11	0	0	0	902	24	926
400-415	188	0	188	166	4	170	35	0	35	24	0	24	17	1	18	6	0	6	941	12	953
415-430	205	0	205	147	4	151	37	0	37	37	0	37	15	0	15	0	0	0	906	9	915
430-445	197	8	205	181	1	182	29	1	30	53	0	53	14	0	14	2	0	2	956	12	968
445-500	206	7	213	173	1	174	37	0	37	43	0	43	17	0	17	1	0	1	947	12	959
500-515	172	3	175	188	0	188	45	1	46	46	0	46	16	0	16	4	0	4	1072	10	1082
515-530	207	0	207	187	0	187	35	0	35	35	0	35	6	0	6	2	0	2	910	7	917
530-545	170	2	172	152	1	153	30	0	30	37	0	37	6	0	6	3	0	3	893	5	898
545-600	190	2	192	143	2	145	43	2	45	39	0	39	9	0	9	2	0	2	915	14	929
HOUR TOTALS																					
300-400	725	8	733	636	14	650	158	3	161	122	0	122	46	0	46	13	0	13	3511	73	3584
315-415	741	4	745	647	15	662	165	3	168	126	0	126	52	1	53	10	0	10	3584	66	3650
330-430	780	3	783	654	17	671	163	3	166	131	0	131	61	1	62	7	0	7	3679	59	3738
345-445	781	10	791	672	15	687	150	3	153	150	0	150	57	1	58	8	0	8	3705	57	3762
400-500	796	15	811	667	10	677	138	1	139	157	0	157	63	1	64	9	0	9	3750	45	3795
415-515	780	18	798	689	6	695	148	2	150	179	0	179	62	0	62	7	0	7	3881	43	3924
430-530	782	18	800	729	2	731	146	2	148	177	0	177	53	0	53	9	0	9	3885	41	3926
445-545	755	12	767	700	2	702	147	1	148	161	0	161	45	0	45	10	0	10	3822	34	3856
500-600	739	7	746	670	3	673	153	3	156	157	0	157	37	0	37	11	0	11	3790	36	3826

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 25, 2007
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S OXNARD BOULEVARD
E/W PLEASANT VALLEY ROAD
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	10	0	10	74	2	76	50	5	55	38	2	40	105	2	107	2	0	2
715-730	18	0	18	104	0	104	71	3	74	29	4	33	110	0	110	8	0	8
730-745	26	0	26	68	2	70	87	1	88	32	0	32	158	0	158	2	0	2
745-800	22	0	22	74	3	77	83	0	83	46	2	48	147	2	149	4	1	5
800-815	15	0	15	80	2	82	52	2	54	35	4	39	102	2	104	1	0	1
815-830	10	0	10	75	4	79	51	1	52	42	2	44	100	3	103	1	1	2
830-845	10	0	10	62	2	64	48	1	49	26	4	30	89	2	91	4	1	5
845-900	14	0	14	45	2	47	42	1	43	38	2	40	80	1	81	2	0	2
900-915	14	1	15	39	2	41	27	1	28	34	1	35	77	3	80	1	0	1
915-930	14	1	15	30	6	36	21	0	21	22	4	26	63	2	65	2	0	2
930-945	12	1	13	55	3	58	32	1	33	17	2	19	61	1	62	3	0	3
945-1000	13	1	14	42	4	46	22	3	25	25	6	31	47	0	47	3	1	4
HOUR TOTALS																		
700-800	76	0	76	320	7	327	291	9	300	145	8	153	520	4	524	16	1	17
715-815	81	0	81	326	7	333	293	6	299	142	10	152	517	4	521	15	1	16
730-830	73	0	73	297	11	308	273	4	277	155	8	163	507	7	514	8	2	10
745-845	57	0	57	291	11	302	234	4	238	149	12	161	438	9	447	10	3	13
800-900	49	0	49	262	10	272	193	5	198	141	12	153	371	8	379	8	2	10
815-915	48	1	49	221	10	231	168	4	172	140	9	149	346	9	355	8	2	10
830-930	52	2	54	176	12	188	138	3	141	120	11	131	309	8	317	9	1	10
845-945	54	3	57	169	13	182	122	3	125	111	9	120	281	7	288	8	0	8
900-1000	53	4	57	166	15	181	102	5	107	98	13	111	248	6	254	9	1	10

PEAK HOUR
715-815

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	14	0	14	0	0	0	36	0	36	28	0	28	202	1	203	10	0	10	569	12	581
715-730	21	0	21	0	0	0	37	2	39	48	0	48	284	1	285	18	0	18	748	10	758
730-745	23	1	24	0	0	0	48	1	49	33	0	33	276	0	276	24	0	24	777	5	782
745-800	23	0	23	0	0	0	45	0	45	27	0	27	267	2	269	42	0	42	780	10	790
800-815	12	0	12	1	0	1	31	0	31	20	0	20	225	0	225	20	0	20	594	10	604
815-830	19	1	20	0	0	0	20	1	21	25	0	25	145	0	145	14	0	14	502	13	515
830-845	15	0	15	2	0	2	24	1	25	30	0	30	130	2	132	19	0	19	459	13	472
845-900	12	1	13	0	0	0	24	0	24	20	0	20	143	2	145	19	0	19	439	9	448
900-915	7	1	8	2	0	2	27	0	27	11	0	11	66	1	67	10	1	11	315	11	326
915-930	11	0	11	0	0	0	23	3	26	16	0	16	92	1	93	9	0	9	303	17	320
930-945	15	1	16	0	0	0	22	1	23	10	0	10	81	2	83	9	0	9	317	12	329
945-1000	8	0	8	2	0	2	30	0	30	14	0	14	90	2	92	6	0	6	302	17	319
HOUR TOTALS																					
700-800	81	1	82	0	0	0	166	3	169	136	0	136	1029	4	1033	94	0	94	2874	37	2911
715-815	79	1	80	1	0	1	161	3	164	128	0	128	1052	3	1055	104	0	104	2899	35	2934
730-830	77	2	79	1	0	1	144	2	146	105	0	105	913	2	915	100	0	100	2653	38	2691
745-845	69	1	70	3	0	3	120	2	122	102	0	102	767	4	771	95	0	95	2335	46	2381
800-900	58	2	60	3	0	3	99	2	101	95	0	95	643	4	647	72	0	72	1994	45	2039
815-915	53	3	56	4	0	4	95	2	97	86	0	86	484	5	489	62	1	63	1715	46	1761
830-930	45	2	47	4	0	4	98	4	102	77	0	77	431	6	437	57	1	58	1516	50	1566
845-945	45	3	48	2	0	2	96	4	100	57	0	57	382	6	388	47	1	48	1374	49	1423
900-1000	41	2	43	4	0	4	102	4	106	51	0	51	329	6	335	34	1	35	1237	57	1294

WILTEC
Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 25, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S OXNARD BOULEVARD
E/W PLEASANT VALLEY ROAD
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	17	0	17	33	3	36	21	2	23	71	4	75	121	1	122	3	1	4
315-330	25	0	25	34	5	39	31	3	34	93	2	95	154	0	154	3	0	3
330-345	16	0	16	64	0	64	63	1	64	78	2	80	157	1	158	1	1	2
345-400	31	0	31	50	1	51	44	2	46	130	6	136	200	1	201	1	0	1
400-415	28	0	28	38	4	42	34	1	35	140	6	146	237	0	237	11	1	12
415-430	32	0	32	38	5	43	37	2	39	150	2	152	214	1	215	6	0	6
430-445	36	1	37	35	1	36	33	2	35	174	3	177	206	2	208	2	0	2
445-500	30	0	30	28	4	32	35	0	35	161	6	167	247	0	247	3	1	4
500-515	24	0	24	39	2	41	47	1	48	182	3	185	298	0	298	1	0	1
515-530	24	0	24	41	1	42	41	1	42	193	1	194	304	0	304	2	0	2
530-545	32	0	32	32	1	33	34	2	36	149	2	151	227	0	227	4	0	4
545-600	34	0	34	47	4	51	33	2	35	144	0	144	227	0	227	3	0	3
HOUR TOTALS																		
300-400	89	0	89	181	9	190	159	8	167	372	14	386	632	3	635	8	2	10
315-415	100	0	100	186	10	196	172	7	179	441	16	457	748	2	750	16	2	18
330-430	107	0	107	190	10	200	178	6	184	498	16	514	808	3	811	19	2	21
345-445	127	1	128	161	11	172	148	7	155	594	17	611	857	4	861	20	1	21
400-500	126	1	127	139	14	153	139	5	144	625	17	642	904	3	907	22	2	24
415-515	122	1	123	140	12	152	152	5	157	667	14	681	965	3	968	12	1	13
430-530	114	1	115	143	8	151	156	4	160	710	13	723	1055	2	1057	8	1	9
445-545	110	0	110	140	8	148	157	4	161	685	12	697	1076	0	1076	10	1	11
500-600	114	0	114	159	8	167	155	6	161	668	6	674	1056	0	1056	10	0	10

PEAK HOUR
445-545

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	30	2	32	3	0	3	64	0	64	13	135	148	135	1	136	10	0	10	521	149	670
315-330	17	0	17	0	0	0	67	0	67	17	143	160	143	1	144	29	0	29	613	154	767
330-345	12	2	14	1	0	1	64	0	64	20	165	185	165	4	169	10	0	10	651	176	827
345-400	28	1	29	1	0	1	86	1	87	27	131	158	131	1	132	17	0	17	746	144	890
400-415	20	3	23	1	0	1	83	0	83	13	123	136	123	1	124	15	0	15	743	139	882
415-430	23	2	25	2	0	2	98	0	98	13	184	197	184	0	184	19	0	19	816	196	1012
430-445	20	0	20	2	0	2	83	0	83	10	125	135	125	1	126	10	0	10	736	135	871
445-500	22	1	23	1	0	1	100	0	100	17	136	153	136	2	138	15	0	15	795	150	945
500-515	15	1	16	0	0	0	113	0	113	11	128	139	128	0	128	24	0	24	882	135	1017
515-530	10	0	10	1	0	1	98	1	99	6	126	132	126	0	126	14	0	14	860	130	990
530-545	20	0	20	3	0	3	127	0	127	13	124	137	124	0	124	15	0	15	780	129	909
545-600	24	1	25	1	0	1	120	0	120	16	116	132	116	0	116	19	0	19	784	123	907
HOUR TOTALS																					
300-400	87	5	92	5	0	5	281	1	282	77	574	651	574	7	581	66	0	66	2531	623	3154
315-415	77	6	83	3	0	3	300	1	301	77	562	639	562	7	569	71	0	71	2753	613	3366
330-430	83	8	91	5	0	5	331	1	332	73	603	676	603	6	609	61	0	61	2956	655	3611
345-445	91	6	97	6	0	6	350	1	351	63	563	626	563	3	566	61	0	61	3041	614	3655
400-500	85	6	91	6	0	6	364	0	364	53	568	621	568	4	572	59	0	59	3090	620	3710
415-515	80	4	84	5	0	5	394	0	394	51	573	624	573	3	576	68	0	68	3229	616	3845
430-530	67	2	69	4	0	4	394	1	395	44	515	559	515	3	518	63	0	63	3273	550	3823
445-545	67	2	69	5	0	5	438	1	439	47	514	561	514	2	516	68	0	68	3317	544	3861
500-600	69	2	71	5	0	5	458	1	459	46	494	540	494	0	494	72	0	72	3306	517	3823

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		WEDNESDAY SEPTEMBER 19, 2007
PERIOD:		7:00 AM TO 10:00 AM
INTERSECTION:	N/S	ROSE AVENUE
	E/W	5TH STREET
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	34	9	43	239	9	248	4	2	6	10	0	10	32	5	37	26	2	28
715-730	20	2	22	225	6	231	12	0	12	6	0	6	34	4	38	17	1	18
730-745	36	3	39	324	6	330	9	0	9	3	0	3	49	4	53	25	5	30
745-800	26	6	32	366	8	374	9	0	9	13	0	13	70	2	72	37	2	39
800-815	33	6	39	220	9	229	12	0	12	5	0	5	66	6	72	23	5	28
815-830	33	5	38	220	11	231	11	0	11	5	0	5	55	7	62	30	6	36
830-845	42	4	46	214	15	229	5	1	6	4	1	5	40	7	47	20	6	26
845-900	33	4	37	191	6	197	13	0	13	11	2	13	59	9	68	20	0	20
900-915	33	3	36	188	11	199	6	3	9	8	1	9	50	8	58	12	4	16
915-930	35	6	41	197	8	205	14	0	14	2	0	2	37	6	43	20	4	24
930-945	53	2	55	168	5	173	8	2	10	3	0	3	47	10	57	20	4	24
945-1000	44	4	48	162	9	171	2	1	3	7	2	9	34	4	38	21	1	22
HOUR TOTALS																		
700-800	116	20	136	1154	29	1183	34	2	36	32	0	32	185	15	200	105	10	115
715-815	115	17	132	1135	29	1164	42	0	42	27	0	27	219	16	235	102	13	115
730-830	128	20	148	1130	34	1164	41	0	41	26	0	26	240	19	259	115	18	133
745-845	134	21	155	1020	43	1063	37	1	38	27	1	28	231	22	253	110	19	129
800-900	141	19	160	845	41	886	41	1	42	25	3	28	220	29	249	93	17	110
815-915	141	16	157	813	43	856	35	4	39	28	4	32	204	31	235	82	16	98
830-930	143	17	160	790	40	830	38	4	42	25	4	29	186	30	216	72	14	86
845-945	154	15	169	744	30	774	41	5	46	24	3	27	193	33	226	72	12	84
900-1000	165	15	180	715	33	748	30	6	36	20	3	23	168	28	196	73	13	86

PEAK HOUR
730-830

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	14	2	16	201	3	204	0	0	0	4	1	5	65	4	69	30	6	36	659	43	702
715-730	22	3	25	278	9	287	1	1	2	7	3	10	92	7	99	46	9	55	760	45	805
730-745	26	1	27	284	6	290	5	0	5	6	0	6	129	15	144	43	8	51	939	48	987
745-800	18	4	22	298	4	302	1	0	1	9	1	10	104	1	105	40	6	46	991	34	1025
800-815	18	1	19	276	13	289	4	2	6	7	0	7	90	5	95	49	8	57	803	55	858
815-830	24	5	29	283	11	294	5	0	5	8	0	8	85	11	96	67	10	77	826	66	892
830-845	6	4	10	251	6	257	0	0	0	5	1	6	55	12	67	32	5	37	674	62	736
845-900	13	5	18	229	8	237	3	0	3	6	1	7	33	8	41	48	11	59	659	54	713
900-915	9	4	13	212	18	230	2	0	2	5	0	5	34	8	42	52	13	65	611	73	684
915-930	14	0	14	146	9	155	5	1	6	7	3	10	39	13	52	49	8	57	565	58	623
930-945	11	1	12	175	3	178	4	1	5	6	3	9	48	17	65	43	10	53	586	58	644
945-1000	9	0	9	179	7	186	1	0	1	4	1	5	35	5	40	44	12	56	542	46	588
HOUR TOTALS																					
700-800	80	10	90	1061	22	1083	7	1	8	26	5	31	390	27	417	159	29	188	3349	170	3519
715-815	84	9	93	1136	32	1168	11	3	14	29	4	33	415	28	443	178	31	209	3493	182	3675
730-830	86	11	97	1141	34	1175	15	2	17	30	1	31	408	32	440	199	32	231	3559	203	3762
745-845	66	14	80	1108	34	1142	10	2	12	29	2	31	334	29	363	188	29	217	3294	217	3511
800-900	61	15	76	1039	38	1077	12	2	14	26	2	28	263	36	299	196	34	230	2962	237	3199
815-915	52	18	70	975	43	1018	10	0	10	24	2	26	207	39	246	199	39	238	2770	255	3025
830-930	42	13	55	838	41	879	10	1	11	23	5	28	161	41	202	181	37	218	2509	247	2756
845-945	47	10	57	762	38	800	14	2	16	24	7	31	154	46	200	192	42	234	2421	243	2664
900-1000	43	5	48	712	37	749	12	2	14	22	7	29	156	43	199	188	43	231	2304	235	2539

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 25, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S ROSE AVENUE
E/W 5TH STREET
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	57	9	66	271	14	285	3	2	5	26	0	26	80	9	89	42	2	44
315-330	34	8	42	261	6	267	0	0	0	31	0	31	100	10	110	38	3	41
330-345	51	3	54	359	7	366	0	0	0	33	0	33	108	8	116	52	2	54
345-400	52	7	59	325	8	333	16	3	19	30	1	31	125	10	135	65	2	67
400-415	42	1	43	347	7	354	20	0	20	21	2	23	116	5	121	33	3	36
415-430	42	4	46	257	7	264	11	0	11	15	0	15	100	9	109	28	1	29
430-445	49	4	53	320	6	326	6	1	7	13	0	13	143	6	149	82	3	85
445-500	44	3	47	257	4	261	10	0	10	16	0	16	127	5	132	24	3	27
500-515	70	0	70	366	4	370	5	0	5	20	0	20	157	6	163	50	6	56
515-530	35	3	38	303	6	309	9	0	9	19	1	20	120	3	123	47	1	48
530-545	48	0	48	342	4	346	4	0	4	15	0	15	133	9	142	53	2	55
545-600	39	4	43	300	4	304	5	0	5	10	1	11	95	4	99	33	0	33
HOUR TOTALS																		
300-400	194	27	221	1216	35	1251	19	5	24	120	1	121	413	37	450	197	9	206
315-415	179	19	198	1292	28	1320	36	3	39	115	3	118	449	33	482	188	10	198
330-430	187	15	202	1288	29	1317	47	3	50	99	3	102	449	32	481	178	8	186
345-445	185	16	201	1249	28	1277	53	4	57	79	3	82	484	30	514	208	9	217
400-500	177	12	189	1181	24	1205	47	1	48	65	2	67	486	25	511	167	10	177
415-515	205	11	216	1200	21	1221	32	1	33	64	0	64	527	26	553	184	13	197
430-530	198	10	208	1246	20	1266	30	1	31	68	1	69	547	20	567	203	13	216
445-545	197	6	203	1268	18	1286	28	0	28	70	1	71	537	23	560	174	12	186
500-600	192	7	199	1311	18	1329	23	0	23	64	2	66	505	22	527	183	9	192

PEAK HOUR
430-530

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	16	1	17	274	13	287	4	0	4	14	2	16	85	11	96	61	6	67	933	69	1002
315-330	20	2	22	252	8	260	1	0	1	10	0	10	61	12	73	71	11	82	879	60	939
330-345	16	0	16	358	7	365	8	1	9	15	2	17	72	7	79	69	4	73	1141	41	1182
345-400	8	1	9	277	7	284	6	0	6	10	0	10	55	7	62	57	3	60	1026	49	1075
400-415	16	0	16	262	7	269	8	0	8	25	2	27	72	3	75	95	7	102	1057	37	1094
415-430	12	1	13	284	2	286	3	0	3	10	0	10	45	5	50	88	1	89	895	30	925
430-445	12	1	13	324	5	329	5	1	6	8	0	8	76	8	84	93	5	98	1131	40	1171
445-500	12	0	12	265	5	270	6	0	6	13	0	13	70	7	77	78	5	83	922	32	954
500-515	16	0	16	302	4	306	2	0	2	10	1	11	57	4	61	74	1	75	1129	26	1155
515-530	10	1	11	311	5	316	6	0	6	8	0	8	92	4	96	76	0	76	1036	24	1060
530-545	9	0	9	295	1	296	7	0	7	8	0	8	51	5	56	77	1	78	1042	22	1064
545-600	6	0	6	249	5	254	2	0	2	5	0	5	82	2	84	72	1	73	898	21	919
HOUR TOTALS																					
300-400	60	4	64	1161	35	1196	19	1	20	49	4	53	273	37	310	258	24	282	3979	219	4198
315-415	60	3	63	1149	29	1178	23	1	24	60	4	64	260	29	289	292	25	317	4103	187	4290
330-430	52	2	54	1181	23	1204	25	1	26	60	4	64	244	22	266	309	15	324	4119	157	4276
345-445	48	3	51	1147	21	1168	22	1	23	53	2	55	248	23	271	333	16	349	4109	156	4265
400-500	52	2	54	1135	19	1154	22	1	23	56	2	58	263	23	286	354	18	372	4005	139	4144
415-515	52	2	54	1175	16	1191	16	1	17	41	1	42	248	24	272	333	12	345	4077	128	4205
430-530	50	2	52	1202	19	1221	19	1	20	39	1	40	295	23	318	321	11	332	4218	122	4340
445-545	47	1	48	1173	15	1188	21	0	21	39	1	40	270	20	290	305	7	312	4129	104	4233
500-600	41	1	42	1157	15	1172	17	0	17	31	1	32	282	15	297	299	3	302	4105	93	4198

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 25, 2007
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S ROSE AVENUE
E/W OXNARD BOULEVARD
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	2	0	2	74	2	76	9	0	9	7	0	7	28	0	28	0	0	0
715-730	4	0	4	99	0	99	7	0	7	17	0	17	66	0	66	0	0	0
730-745	9	0	9	151	3	154	15	0	15	20	0	20	56	0	56	0	0	0
745-800	7	0	7	155	0	155	2	0	2	28	0	28	68	0	68	0	0	0
800-815	9	0	9	135	0	135	12	0	12	13	1	14	58	0	58	1	0	1
815-830	3	0	3	155	0	155	5	1	6	11	1	12	68	0	68	0	0	0
830-845	6	0	6	125	0	125	6	0	6	13	0	13	61	0	61	0	0	0
845-900	5	1	6	110	4	114	3	0	3	10	0	10	51	0	51	0	0	0
900-915	3	0	3	124	3	127	2	0	2	0	0	0	46	0	46	0	0	0
915-930	4	1	5	149	3	152	8	0	8	15	0	15	27	0	27	0	0	0
930-945	3	0	3	109	3	112	4	2	6	6	0	6	41	0	41	0	0	0
945-1000	10	0	10	92	3	95	2	0	2	11	0	11	42	0	42	0	0	0
HOUR TOTALS																		
700-800	22	0	22	479	5	484	33	0	33	72	0	72	218	0	218	0	0	0
715-815	29	0	29	540	3	543	36	0	36	78	1	79	248	0	248	1	0	1
730-830	28	0	28	596	3	599	34	1	35	72	2	74	250	0	250	1	0	1
745-845	25	0	25	570	0	570	25	1	26	65	2	67	255	0	255	1	0	1
800-900	23	1	24	525	4	529	26	1	27	47	2	49	238	0	238	1	0	1
815-915	17	1	18	514	7	521	16	1	17	34	1	35	226	0	226	0	0	0
830-930	18	2	20	508	10	518	19	0	19	38	0	38	185	0	185	0	0	0
845-945	15	2	17	492	13	505	17	2	19	31	0	31	165	0	165	0	0	0
900-1000	20	1	21	474	12	486	16	2	18	32	0	32	156	0	156	0	0	0

PEAK HOUR
730-830

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	4	0	4	122	0	122	24	0	24	16	0	16	63	4	67	0	0	0	349	6	355
715-730	15	0	15	173	1	174	28	0	28	32	0	32	61	3	64	0	0	0	502	4	506
730-745	9	0	9	176	0	176	37	0	37	47	1	48	96	1	97	0	0	0	616	5	621
745-800	7	0	7	239	2	241	32	0	32	64	0	64	80	3	83	0	0	0	682	5	687
800-815	6	0	6	186	1	187	36	1	37	39	2	41	70	0	70	0	0	0	565	5	570
815-830	11	0	11	166	1	167	44	0	44	50	1	51	56	1	57	0	0	0	569	5	574
830-845	6	0	6	152	1	153	38	0	38	37	0	37	44	3	47	1	0	1	489	4	493
845-900	7	0	7	186	1	187	48	0	48	55	0	55	36	3	39	0	0	0	511	9	520
900-915	7	0	7	141	2	143	28	0	28	55	0	55	40	2	42	0	0	0	446	7	453
915-930	3	0	3	145	2	147	30	1	31	55	0	55	28	5	33	0	0	0	464	12	476
930-945	6	0	6	140	1	141	37	1	38	37	1	38	38	4	42	0	0	0	421	12	433
945-1000	4	0	4	128	2	130	27	0	27	23	2	25	34	5	39	0	0	0	373	12	385
HOUR TOTALS																					
700-800	35	0	35	710	3	713	121	0	121	159	1	160	300	11	311	0	0	0	2149	20	2169
715-815	37	0	37	774	4	778	133	1	134	182	3	185	307	7	314	0	0	0	2365	19	2384
730-830	33	0	33	767	4	771	149	1	150	200	4	204	302	5	307	0	0	0	2432	20	2452
745-845	30	0	30	743	5	748	150	1	151	190	3	193	250	7	257	1	0	1	2305	19	2324
800-900	30	0	30	690	4	694	166	1	167	181	3	184	206	7	213	1	0	1	2134	23	2157
815-915	31	0	31	645	5	650	158	0	158	197	1	198	176	9	185	1	0	1	2015	25	2040
830-930	23	0	23	624	6	630	144	1	145	202	0	202	148	13	161	1	0	1	1910	32	1942
845-945	23	0	23	612	6	618	143	2	145	202	1	203	142	14	156	0	0	0	1842	40	1882
900-1000	20	0	20	554	7	561	122	2	124	170	3	173	140	16	156	0	0	0	1704	43	1747

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 25, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S ROSE AVENUE
E/W OXNARD BOULEVARD
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	10	0	10	179	0	179	10	0	10	7	0	7	62	2	64	0	0	0
315-330	23	3	26	175	3	178	9	1	10	18	1	19	96	2	98	0	0	0
330-345	13	1	14	225	0	225	9	0	9	19	1	20	102	1	103	0	0	0
345-400	10	0	10	200	0	200	15	0	15	14	0	14	121	2	123	0	0	0
400-415	11	0	11	215	1	216	15	0	15	15	0	15	115	6	121	0	0	0
415-430	9	0	9	215	1	216	11	0	11	20	0	20	128	2	130	0	0	0
430-445	6	0	6	204	0	204	15	2	17	22	0	22	159	3	162	0	0	0
445-500	16	0	16	253	1	254	15	1	16	16	0	16	192	4	196	0	0	0
500-515	7	1	8	243	2	245	15	0	15	28	1	29	175	1	176	0	0	0
515-530	16	1	17	280	1	281	9	0	9	16	0	16	198	1	199	0	0	0
530-545	7	0	7	245	0	245	17	1	18	23	0	23	156	2	158	0	0	0
545-600	7	0	7	246	0	246	6	0	6	13	0	13	132	1	133	0	0	0
HOUR TOTALS																		
300-400	56	4	60	779	3	782	43	1	44	58	2	60	381	7	388	0	0	0
315-415	57	4	61	815	4	819	48	1	49	66	2	68	434	11	445	0	0	0
330-430	43	1	44	855	2	857	50	0	50	68	1	69	466	11	477	0	0	0
345-445	36	0	36	834	2	836	56	2	58	71	0	71	523	13	536	0	0	0
400-500	42	0	42	887	3	890	56	3	59	73	0	73	594	15	609	0	0	0
415-515	38	1	39	915	4	919	56	3	59	86	1	87	654	10	664	0	0	0
430-530	45	2	47	980	4	984	54	3	57	82	1	83	724	9	733	0	0	0
445-545	46	2	48	1021	4	1025	56	2	58	83	1	84	721	8	729	0	0	0
500-600	37	2	39	1014	3	1017	47	1	48	80	1	81	661	5	666	0	0	0

PEAK HOUR
445-545

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	9	0	9	146	2	148	24	0	24	53	0	53	49	5	54	0	0	0	549	9	558
315-330	6	1	7	178	1	179	30	0	30	40	1	41	33	3	36	0	0	0	608	16	624
330-345	10	0	10	170	1	171	43	1	44	56	0	56	47	0	47	0	0	0	694	5	699
345-400	11	0	11	196	2	198	40	0	40	52	0	52	47	2	49	0	0	0	706	6	712
400-415	7	0	7	204	2	206	41	0	41	57	1	58	68	6	74	0	0	0	748	16	764
415-430	5	0	5	154	0	154	40	0	40	46	0	46	35	1	36	0	0	0	663	4	667
430-445	4	0	4	170	0	170	29	0	29	71	0	71	42	0	42	0	0	0	722	5	727
445-500	6	0	6	199	1	200	31	0	31	77	0	77	38	3	41	0	0	0	843	10	853
500-515	6	0	6	170	0	170	39	0	39	79	0	79	66	0	66	0	0	0	828	5	833
515-530	4	0	4	203	0	203	45	0	45	79	0	79	44	1	45	0	0	0	894	4	898
530-545	7	0	7	179	0	179	34	0	34	86	1	87	45	4	49	0	0	0	799	8	807
545-600	8	0	8	199	0	199	51	0	51	86	0	86	50	3	53	0	0	0	798	4	802
HOUR TOTALS																					
300-400	36	1	37	690	6	696	137	1	138	201	1	202	176	10	186	0	0	0	2557	36	2593
315-415	34	1	35	748	6	754	154	1	155	205	2	207	195	11	206	0	0	0	2756	43	2799
330-430	33	0	33	724	5	729	164	1	165	211	1	212	197	9	206	0	0	0	2811	31	2842
345-445	27	0	27	724	4	728	150	0	150	226	1	227	192	9	201	0	0	0	2839	31	2870
400-500	22	0	22	727	3	730	141	0	141	251	1	252	183	10	193	0	0	0	2976	35	3011
415-515	21	0	21	693	1	694	139	0	139	273	0	273	181	4	185	0	0	0	3056	24	3080
430-530	20	0	20	742	1	743	144	0	144	306	0	306	190	4	194	0	0	0	3287	24	3311
445-545	23	0	23	751	1	752	149	0	149	321	1	322	193	8	201	0	0	0	3364	27	3391
500-600	25	0	25	751	0	751	169	0	169	330	1	331	205	8	213	0	0	0	3319	21	3340

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 5, 2007
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S ROSE AVENUE
E/W WOOLEY ROAD
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	71	18	89	160	15	175	1	0	1	3	0	3	31	2	33	14	0	14
715-730	67	1	68	209	2	211	4	3	7	3	0	3	41	1	42	17	1	18
730-745	87	5	92	279	3	282	4	0	4	7	1	8	27	6	33	11	1	12
745-800	136	5	141	297	4	301	8	0	8	2	0	2	27	3	30	13	0	13
800-815	75	15	90	203	4	207	3	0	3	4	2	6	30	5	35	18	1	19
815-830	57	10	67	184	6	190	4	2	6	2	1	3	22	4	26	10	0	10
830-845	56	9	65	167	8	175	4	0	4	7	0	7	35	7	42	15	2	17
845-900	27	7	34	156	10	166	0	0	0	3	0	3	14	2	16	8	1	9
900-915	20	4	24	126	3	129	0	0	0	2	0	2	16	10	26	5	2	7
915-930	39	7	46	169	4	173	2	0	2	0	0	0	19	1	20	6	6	12
930-945	43	5	48	118	7	125	3	1	4	0	0	0	19	7	26	11	1	12
945-1000	48	1	49	142	4	146	1	0	1	7	1	8	38	5	43	8	0	8
HOUR TOTALS																		
700-800	361	29	390	945	24	969	17	3	20	15	1	16	126	12	138	55	2	57
715-815	365	26	391	988	13	1001	19	3	22	16	3	19	125	15	140	59	3	62
730-830	355	35	390	963	17	980	19	2	21	15	4	19	106	18	124	52	2	54
745-845	324	39	363	851	22	873	19	2	21	15	3	18	114	19	133	56	3	59
800-900	215	41	256	710	28	738	11	2	13	16	3	19	101	18	119	51	4	55
815-915	160	30	190	633	27	660	8	2	10	14	1	15	87	23	110	38	5	43
830-930	142	27	169	618	25	643	6	0	6	12	0	12	84	20	104	34	11	45
845-945	129	23	152	569	24	593	5	1	6	5	0	5	68	20	88	30	10	40
900-1000	150	17	167	555	18	573	6	1	7	9	1	10	92	23	115	30	9	39

PEAK HOUR
715-815

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	28	0	28	220	4	224	5	0	5	17	0	17	70	2	72	14	3	17	634	44	678
715-730	22	1	23	217	6	223	3	0	3	14	1	15	71	5	76	29	2	31	697	23	720
730-745	32	1	33	272	1	273	7	0	7	7	0	7	78	3	81	46	4	50	857	25	882
745-800	28	1	29	286	4	290	17	0	17	5	0	5	66	5	71	70	6	76	955	28	983
800-815	17	1	18	249	3	252	5	0	5	7	0	7	62	7	69	77	3	80	750	41	791
815-830	18	0	18	214	4	218	6	0	6	7	0	7	67	4	71	44	11	55	635	42	677
830-845	18	2	20	178	6	184	6	0	6	14	0	14	56	5	61	56	5	61	612	44	656
845-900	18	2	20	188	9	197	7	1	8	9	0	9	60	7	67	54	4	58	544	43	587
900-915	13	1	14	139	2	141	3	0	3	5	1	6	32	8	40	80	7	87	441	38	479
915-930	14	1	15	179	10	189	6	0	6	6	1	7	31	8	39	20	5	25	491	43	534
930-945	5	0	5	172	1	173	9	0	9	3	2	5	38	5	43	25	3	28	446	32	478
945-1000	11	0	11	130	2	132	2	0	2	6	0	6	32	9	41	36	6	42	461	28	489
HOUR TOTALS																					
700-800	110	3	113	995	15	1010	32	0	32	43	1	44	285	15	300	159	15	174	3143	120	3263
715-815	99	4	103	1024	14	1038	32	0	32	33	1	34	277	20	297	222	15	237	3259	117	3376
730-830	95	3	98	1021	12	1033	35	0	35	26	0	26	273	19	292	237	24	261	3197	136	3333
745-845	81	4	85	927	17	944	34	0	34	33	0	33	251	21	272	247	25	272	2952	155	3107
800-900	71	5	76	829	22	851	24	1	25	37	0	37	245	23	268	231	23	254	2541	170	2711
815-915	67	5	72	719	21	740	22	1	23	35	1	36	215	24	239	234	27	261	2232	167	2399
830-930	63	6	69	684	27	711	22	1	23	34	2	36	179	28	207	210	21	231	2088	168	2256
845-945	50	4	54	678	22	700	25	1	26	23	4	27	161	28	189	179	19	198	1922	156	2078
900-1000	43	2	45	620	15	635	20	0	20	20	4	24	133	30	163	161	21	182	1839	141	1980

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		WEDNESDAY SEPTEMBER 19, 2007
PERIOD:		3:00 PM TO 6:00 PM
INTERSECTION:	N/S	ROSE AVENUE
	E/W	WOOLEY ROAD
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	72	8	80	209	7	216	5	0	5	4	0	4	55	6	61	16	0	16
315-330	83	5	88	237	5	242	1	2	3	5	0	5	41	8	49	20	1	21
330-345	99	6	105	311	4	315	4	0	4	5	1	6	69	4	73	26	2	28
345-400	85	1	86	295	4	299	0	0	0	2	0	2	66	8	74	18	0	18
400-415	97	3	100	280	6	286	1	2	3	9	1	10	78	5	83	19	0	19
415-430	103	5	108	286	2	288	3	2	5	0	1	1	60	1	61	29	1	30
430-445	102	3	105	286	2	288	4	0	4	9	0	9	76	5	81	31	0	31
445-500	102	1	103	286	7	293	0	0	0	6	0	6	80	2	82	22	0	22
500-515	102	3	105	327	3	330	2	0	2	7	0	7	87	8	95	28	1	29
515-530	95	5	100	343	2	345	3	0	3	5	0	5	91	5	96	31	0	31
530-545	100	0	100	307	32	339	4	0	4	3	0	3	61	4	65	24	0	24
545-600	85	0	85	333	19	352	2	0	2	3	1	4	77	1	78	24	0	24
HOUR TOTALS																		
300-400	339	20	359	1052	20	1072	10	2	12	16	1	17	231	26	257	80	3	83
315-415	364	15	379	1123	19	1142	6	4	10	21	2	23	254	25	279	83	3	86
330-430	384	15	399	1172	16	1188	8	4	12	16	3	19	273	18	291	92	3	95
345-445	387	12	399	1147	14	1161	8	4	12	20	2	22	280	19	299	97	1	98
400-500	404	12	416	1138	17	1155	8	4	12	24	2	26	294	13	307	101	1	102
415-515	409	12	421	1185	14	1199	9	2	11	22	1	23	303	16	319	110	2	112
430-530	401	12	413	1242	14	1256	9	0	9	27	0	27	334	20	354	112	1	113
445-545	399	9	408	1263	44	1307	9	0	9	21	0	21	319	19	338	105	1	106
500-600	382	8	390	1310	56	1366	11	0	11	18	1	19	316	18	334	107	1	108

PEAK HOUR
430-530
3756

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	21	0	21	198	2	200	8	0	8	7	0	7	42	3	45	50	8	58	687	34	721
315-330	19	0	19	220	2	222	11	0	11	12	0	12	58	3	61	80	6	86	787	32	819
330-345	23	0	23	235	2	237	10	0	10	5	0	5	40	5	45	62	2	64	889	26	915
345-400	13	0	13	248	3	251	8	0	8	12	1	13	50	5	55	66	4	70	863	26	889
400-415	15	0	15	263	0	263	10	0	10	10	0	10	47	6	53	68	3	71	897	26	923
415-430	25	0	25	221	4	225	15	0	15	8	0	8	44	4	48	75	4	79	869	24	893
430-445	22	0	22	203	3	206	7	0	7	11	0	11	53	2	55	75	5	80	879	20	899
445-500	15	0	15	208	3	211	9	0	9	14	0	14	43	0	43	61	1	62	846	14	860
500-515	18	1	19	230	1	231	10	0	10	16	0	16	61	5	66	119	4	123	1007	26	1033
515-530	21	0	21	196	5	201	7	0	7	18	0	18	44	2	46	63	2	65	917	21	938
530-545	16	0	16	200	1	201	7	0	7	9	0	9	51	2	53	74	1	75	856	40	896
545-600	12	2	14	220	0	220	15	0	15	6	0	6	37	1	38	49	2	51	863	26	889
HOUR TOTALS																					
300-400	76	0	76	901	9	910	37	0	37	36	1	37	190	16	206	258	20	278	3226	118	3344
315-415	70	0	70	966	7	973	39	0	39	39	1	40	195	19	214	276	15	291	3436	110	3546
330-430	76	0	76	967	9	976	43	0	43	35	1	36	181	20	201	271	13	284	3518	102	3620
345-445	75	0	75	935	10	945	40	0	40	41	1	42	194	17	211	284	16	300	3508	96	3604
400-500	77	0	77	895	10	905	41	0	41	43	0	43	187	12	199	279	13	292	3491	84	3575
415-515	80	1	81	862	11	873	41	0	41	49	0	49	201	11	212	330	14	344	3601	84	3685
430-530	76	1	77	837	12	849	33	0	33	59	0	59	201	9	210	318	12	330	3649	81	3730
445-545	70	1	71	834	10	844	33	0	33	57	0	57	199	9	208	317	8	325	3626	101	3727
500-600	67	3	70	846	7	853	39	0	39	49	0	49	193	10	203	305	9	314	3643	113	3756

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

5-LEG INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 19, 2007
PERIOD: 7:00 A.M. TO 10:00 A.M.
INTERSECTION: N/S OXNARD BOULEARD/SAVIERS ROAD
E/W WOOLEY ROAD
OXNARD

15 MIN COUNTS																				
	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
700-715	11	52	42	6	11	53	0	24	4	44	45	1	15	25	121	34	4	37	118	20	667
715-730	10	97	42	6	3	30	0	20	5	40	38	4	14	19	121	23	4	39	111	19	645
730-745	12	140	73	8	3	38	0	29	0	40	47	2	42	19	121	46	6	63	135	16	840
745-800	8	148	93	19	7	31	0	27	6	55	55	1	58	10	155	38	6	42	143	22	924
800-815	12	97	73	10	4	43	0	20	1	33	56	4	38	6	125	22	8	49	106	25	732
815-830	13	80	61	16	8	38	2	19	4	34	51	6	18	15	100	35	4	35	69	20	628
830-845	10	81	35	11	8	54	2	20	6	64	62	5	6	11	100	33	6	26	67	13	620
845-900	12	108	51	11	5	40	2	10	6	29	34	4	9	14	107	36	11	34	81	17	621
900-915	15	84	56	7	9	55	2	10	2	29	52	8	11	11	105	51	6	43	51	15	622
915-930	13	99	82	11	5	45	1	10	4	27	30	2	6	13	96	40	9	35	62	17	607
930-945	10	85	46	13	6	52	3	13	4	36	40	4	2	7	95	23	9	24	64	13	549
945-1000	18	97	51	11	9	50	1	15	3	35	33	9	12	8	108	27	10	20	47	18	582
HOUR TOTALS																					
	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
700-800	41	437	250	39	24	152	0	100	15	179	185	8	129	73	518	141	20	181	507	77	3076
715-815	42	482	281	43	17	142	0	96	12	168	196	11	152	54	522	129	24	193	495	82	3141
730-830	45	465	300	53	22	150	2	95	11	162	209	13	156	50	501	141	24	189	453	83	3124
745-845	43	406	262	56	27	166	4	86	17	186	224	16	120	42	480	128	24	152	385	80	2904
800-900	47	366	220	48	25	175	6	69	17	160	203	19	71	46	432	126	29	144	323	75	2601
815-915	50	353	203	45	30	187	8	59	18	156	199	23	44	51	412	155	27	138	268	65	2491
830-930	50	372	224	40	27	194	7	50	18	149	178	19	32	49	408	160	32	138	261	62	2470
845-945	50	376	235	42	25	192	8	43	16	121	156	18	28	45	403	150	35	136	258	62	2399
900-1000	56	365	235	42	29	202	7	48	13	127	155	23	31	39	404	141	34	122	224	63	2360

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

5-LEG INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		TRAFFIC COUNTS
DATE:		WEDNESDAY SEPTEMBER 19, 2007
PERIOD:		3:00 PM TO 6:00 PM
INTERSECTION:	N/S	OXNARD BOULEARD/SAVIERS ROAD
	E/W	WOOLEY ROAD
CITY:		OXNARD

15 MIN COUNTS																				
	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD			
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
300-315	18	157	72	21	13	82	7	36	1	55	64	5	19	11	150	40	18	28	56	30	883
315-330	16	170	86	11	8	113	1	35	6	53	64	10	21	12	158	54	20	38	62	25	963
330-345	15	210	73	18	7	89	2	38	6	60	87	19	15	4	122	34	10	25	51	23	908
345-400	16	202	73	18	8	84	0	27	5	67	70	12	23	8	116	29	17	43	78	15	911
400-415	15	218	98	10	12	105	0	47	4	51	78	10	18	9	124	36	13	28	47	10	933
415-430	20	189	85	6	14	126	0	56	2	68	97	18	32	6	155	41	10	33	71	15	1044
430-445	18	190	81	6	8	124	1	50	3	65	94	10	38	14	156	45	20	39	83	19	1064
445-500	19	234	106	10	17	113	0	53	2	64	92	14	23	5	130	31	14	39	63	18	1047
500-515	16	197	87	7	10	123	0	62	4	90	124	30	20	10	126	35	13	48	47	28	1077
515-530	23	231	97	17	6	100	0	43	1	56	100	17	24	5	125	30	11	43	49	20	998
530-545	18	218	68	12	13	101	0	47	5	68	120	19	14	8	151	30	19	42	51	27	1031
545-600	21	199	83	7	10	121	0	37	6	76	95	14	17	6	129	42	25	45	71	21	1025
HOUR TOTALS																					
	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
300-400	65	739	304	68	36	368	10	136	18	235	285	46	78	35	546	157	65	134	247	93	3665
315-415	62	800	330	57	35	391	3	147	21	231	299	51	77	33	520	153	60	134	238	73	3715
330-430	66	819	329	52	41	404	2	168	17	246	332	59	88	27	517	140	50	129	247	63	3796
345-445	69	799	337	40	42	439	1	180	14	251	339	50	111	37	551	151	60	143	279	59	3952
400-500	72	831	370	32	51	468	1	206	11	248	361	52	111	34	565	153	57	139	264	62	4088
415-515	73	810	359	29	49	486	1	221	11	287	407	72	113	35	567	152	57	159	264	80	4232
430-530	76	852	371	40	41	460	1	208	10	275	410	71	105	34	537	141	58	169	242	85	4186
445-545	76	880	358	46	46	437	0	205	12	278	436	80	81	28	532	126	57	172	210	93	4153
500-600	78	845	335	43	39	445	0	189	16	290	439	80	75	29	531	137	68	178	218	96	4131

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

5-LEG INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 19, 2007
PERIOD: 7:00 A.M. TO 10:00 A.M.
INTERSECTION: N/S OXNARD BOULEARD/SAVIERS ROAD
E/W WOOLEY ROAD
OXNARD

TRUCKS

15 MIN COUNTS

	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
700-715	0	2	2	0	1	7	0	2	0	1	0	0	0	0	1	0	0	0	0	0	16
715-730	0	1	1	0	0	4	0	1	0	0	0	0	0	0	1	0	0	0	1	0	9
730-745	0	2	2	0	0	4	0	1	0	0	0	0	0	0	1	0	0	1	0	0	11
745-800	0	1	1	1	0	4	0	1	1	0	1	0	0	0	0	0	0	0	2	0	12
800-815	1	5	0	0	0	4	0	3	0	0	1	0	0	0	5	0	0	0	1	1	21
815-830	1	2	2	2	0	1	0	0	0	2	1	0	0	1	0	0	0	1	5	0	18
830-845	1	2	1	2	1	7	0	0	0	0	1	0	0	1	1	0	0	0	2	0	19
845-900	1	0	0	0	0	4	0	0	0	0	0	1	0	3	3	0	0	2	4	1	19
900-915	4	1	4	0	2	6	2	1	0	0	0	0	0	1	3	1	0	3	1	0	29
915-930	2	3	1	0	2	5	0	0	0	1	2	0	0	1	1	0	0	0	8	0	26
930-945	0	1	3	0	3	11	0	4	0	0	1	0	0	0	3	0	0	0	1	0	27
945-1000	1	1	0	0	1	3	0	1	0	1	1	0	0	1	3	0	0	1	3	0	17

HOUR TOTALS

	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
700-800	0	6	6	1	1	19	0	5	1	1	1	0	0	0	3	0	0	1	3	0	48
715-815	1	9	4	1	0	16	0	6	1	0	2	0	0	0	7	0	0	1	4	1	53
730-830	2	10	5	3	0	13	0	5	1	2	3	0	0	1	6	0	0	2	8	1	62
745-845	3	10	4	5	1	16	0	4	1	2	4	0	0	2	6	0	0	1	10	1	70
800-900	4	9	3	4	1	16	0	3	0	2	3	1	0	5	9	0	0	3	12	2	77
815-915	7	5	7	4	3	18	2	1	0	2	2	1	0	6	7	1	0	6	12	1	85
830-930	8	6	6	2	5	22	2	1	0	1	3	1	0	6	8	1	0	5	15	1	93
845-945	7	5	8	0	7	26	2	5	0	1	3	1	0	5	10	1	0	5	14	1	101
900-1000	7	6	8	0	8	25	2	6	0	2	4	0	0	3	10	1	0	4	13	0	99

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

5-LEG INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		TRAFFIC COUNTS
DATE:		WEDNESDAY SEPTEMBER 19, 2007
PERIOD:		3:00 PM TO 6:00 PM
INTERSECTION:	N/S	OXNARD BOULEARD/SAVIERS ROAD
	E/W	WOOLEY ROAD
		OXNARD

TRUCKS

15 MIN COUNTS

	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
300-315	0	1	0	0	1	3	1	0	0	0	0	0	0	1	0	1	0	4	1	0	13
315-330	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2	0	10
330-345	0	1	1	1	0	1	0	0	1	1	4	0	0	0	0	0	0	0	1	1	12
345-400	0	3	1	0	1	2	0	0	1	1	2	0	0	1	1	0	0	1	1	0	15
400-415	0	0	3	0	1	1	0	0	0	0	0	0	0	0	0	0	1	2	2	0	10
415-430	0	2	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	4	0	12
430-445	0	3	3	0	2	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	11
445-500	0	0	2	0	0	3	0	0	0	1	0	0	0	0	0	0	0	1	3	0	10
500-515	0	2	1	0	3	0	0	0	0	1	1	0	0	0	1	0	0	1	2	0	12
515-530	0	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	2	0	11
530-545	0	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	0	6
545-600	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	4

HOUR TOTALS

	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
300-400	0	5	6	1	2	6	1	0	2	3	6	0	1	2	1	2	0	6	5	1	50
315-415	0	4	9	1	2	4	0	0	2	3	6	0	1	1	1	1	1	4	6	1	47
330-430	0	6	6	1	2	5	0	2	2	2	8	0	0	1	1	0	1	3	8	1	49
345-445	0	8	8	0	4	5	0	3	1	1	4	0	0	1	1	1	1	3	7	0	48
400-500	0	5	9	0	3	6	0	3	0	1	2	0	0	0	0	1	1	3	9	0	43
415-515	0	7	7	0	5	5	0	3	0	2	3	0	0	0	1	1	0	2	9	0	45
430-530	0	7	8	0	5	8	0	1	0	2	1	0	0	0	1	1	1	2	7	0	44
445-545	0	6	5	0	3	7	0	0	0	2	1	0	1	0	2	0	1	3	8	0	39
500-600	0	6	3	0	4	4	0	0	0	1	2	1	1	0	2	0	1	2	5	1	33

TRAFFIC DATA SERVICES, INC

SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : OXNARD BLVD
E/W ST: US-101 NB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 1071702A
DATE: 11/01/07
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	2	2			4	1				1	0	1	
7:00 AM	136	26			23	72				18	0	47	322
15 AM	124	23			36	63				21	0	33	300
30 AM	139	24			43	123				30	0	47	406
45 AM	203	34			33	164				33	1	24	492
8:00 AM	147	34			23	84				26	0	42	356
15 AM	143	31			29	79				42	0	36	360
30 AM	115	30			22	75				21	0	21	284
45 AM	127	22			32	75				38	0	22	316

PEAK HOUR BEGINS AT: 730 AM — PHF: 0.82

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	632	123	0	0	128	450	0	0	0	131	1	149	1614

FILENAME: 1071702Q
DATE: 11/01/07
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	161	26			38	65				85	0	41	416
15 PM	166	21			19	51				91	0	55	403
30 PM	171	29			56	73				68	0	40	437
45 PM	169	20			58	74				83	0	43	447
5:00 PM	187	22			70	71				95	0	44	489
15 PM	187	26			80	60				98	0	46	497
30 PM	176	23			51	67				97	0	62	476
45 PM	174	31			40	66				70	0	49	430

PEAK HOUR BEGINS AT: 1645 PM — PHF: 0.96

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	719	91	0	0	259	272	0	0	0	373	0	195	1909

COMMENTS:

TRAFFIC DATA SERVICES, INC

SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : OXNARD BLVD
E/W ST: VINEYARD AVE
CITY: OXNARD

FILENAME: 1071704
DATE: 10/31/07
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	2	2	2	2	2.5	0.5	1.5	2.5	1	3	1.5	0.5	
7:00 AM	17	142	163	20	89	20	50	193	13	114	91	6	918
15 AM	20	108	178	21	123	17	58	308	25	126	94	3	1081
30 AM	30	143	165	23	140	30	70	299	48	154	118	2	1222
45 AM	17	159	190	29	185	22	66	223	64	149	108	5	1217
8:00 AM	16	150	247	25	144	29	65	332	38	165	121	7	1339
15 AM	18	130	147	20	88	13	51	147	26	120	74	4	838
30 AM	12	92	153	21	117	28	78	192	25	106	94	2	920
45 AM	16	130	194	32	157	28	58	145	29	159	99	5	1052

PEAK HOUR BEGINS AT: 715 AM — PHF: 0.91

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	83	560	780	98	592	98	259	1162	175	594	441	17	4859

FILENAME: 1071704P
DATE: 10/31/07
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	41	133	231	47	246	26	43	199	33	185	198	6	1388
15 PM	46	155	241	49	195	46	77	172	21	205	204	4	1415
30 PM	61	142	172	53	236	52	86	185	23	247	273	4	1534
45 PM	59	151	168	32	172	25	40	141	37	237	281	3	1346
5:00 PM	60	166	180	53	222	42	48	152	35	229	282	1	1470
15 PM	83	194	208	57	204	33	53	162	36	236	241	10	1517
30 PM	79	187	202	37	230	59	48	135	30	231	256	6	1500
45 PM	73	147	189	34	163	43	84	146	39	205	254	3	1380

PEAK HOUR BEGINS AT: 1700 PM — PHF: 0.96

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	295	694	779	181	819	177	233	595	140	901	1033	20	5867

COMMENTS:

TRAFFIC DATA SERVICES, INC

SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : OXNARD BLVD
E/W ST: US-101 SB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 1071703A
DATE: 11/01/07
DAY: THURSDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
LANES:		4	1	2	2		2	0	1				
7:00 AM		145	17	17	25		17	0	94				315
15 AM		140	33	29	31		11	0	132				376
30 AM		149	33	32	42		14	0	135				405
45 AM		229	37	28	41		16	1	156				508
8:00 AM		167	35	20	25		14	0	143				404
15 AM		156	24	23	46		18	0	119				386
30 AM		127	23	22	24		18	0	142				356
45 AM		137	26	17	54		12	0	139				385

PEAK HOUR BEGINS AT: 730 AM — PHF: 0.84

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	0	701	129	103	154	0	62	1	553	0	0	0	1703

FILENAME: 1071703P
DATE: 11/01/07
DAY: THURSDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
4:00 PM		183	55	19	104		4	0	267				632
15 PM		149	38	24	86		3	0	273				573
30 PM		183	65	25	98		17	0	299				687
45 PM		174	46	33	92		15	0	242				602
5:00 PM		199	46	29	100		10	0	157				541
15 PM		200	39	22	108		13	0	205				587
30 PM		178	42	39	109		21	0	228				617
45 PM		186	39	32	78		17	0	231				583

PEAK HOUR BEGINS AT: 1600 PM — PHF: 0.91

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	0	689	204	101	380	0	39	0	1081	0	0	0	2494

COMMENTS:

TRAFFIC DATA SERVICES, INC

SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : OXNARD BLVD
E/W ST: GONZALES RD
CITY: OXNARD

FILENAME: 1071705
DATE: 10/31/07
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	2	3	1	2	3	1	2	2	1	2	3	1	
7:00 AM	18	174	57	33	170	4	41	153	11	45	84	62	852
15 AM	33	245	82	35	172	12	52	201	15	64	206	86	1203
30 AM	23	189	65	75	254	19	63	263	24	55	196	85	1311
45 AM	24	190	112	92	278	14	64	226	10	76	157	90	1333
8:00 AM	21	178	115	76	194	11	46	232	9	54	171	94	1201
15 AM	25	177	86	52	232	17	50	206	16	83	209	84	1237
30 AM	18	134	42	37	172	21	48	208	24	56	111	57	928
45 AM	19	188	42	40	195	20	41	185	30	62	149	64	1035

PEAK HOUR BEGINS AT: 730 AM — PHF: 0.95

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	93	734	378	295	958	61	223	927	59	268	733	353	5082

FILENAME: 1071705P
DATE: 10/31/07
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	59	281	84	78	339	31	67	255	37	97	256	90	1674
15 PM	32	241	93	87	314	34	62	206	32	111	201	83	1496
30 PM	37	210	83	86	251	23	68	249	45	114	300	90	1556
45 PM	33	240	81	101	305	17	57	261	28	99	239	86	1547
5:00 PM	56	217	66	104	348	35	57	235	33	93	298	93	1635
15 PM	48	197	82	95	291	25	64	250	27	94	297	81	1551
30 PM	43	210	76	105	343	35	64	231	33	106	320	108	1674
45 PM	32	182	78	92	256	28	58	253	21	115	314	106	1535

PEAK HOUR BEGINS AT: 1645 PM — PHF: 0.96

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	180	864	305	405	1287	112	242	977	121	392	1154	368	6407

COMMENTS:

TRAFFIC DATA SERVICES, INC
SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : VINEYARD AVE
E/W ST: US-101 SB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 1071706A
DATE: 11/06/07
DAY: TUESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:		1.5	1.5		3	1	1		2				
7:00 AM		245	219		257	79	58		35				893
15 AM		279	200		263	98	51		45				936
30 AM		357	255		356	115	65		31				1179
45 AM		306	186		394	74	76		60				1096
8:00 AM		258	180		277	74	47		27				863
15 AM		232	165		299	60	54		57				867
30 AM		218	148		327	52	39		43				827
45 AM		207	119		274	49	55		42				746

PEAK HOUR BEGINS AT: 700 AM — PHF: 0.87

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	0	1187	860	0	1270	366	250	0	171	0	0	0	4104

FILENAME: 1071706Q
DATE: 11/06/07
DAY: TUESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM		326	184		435	41	85		38				1109
15 PM		313	156		446	42	73		40				1070
30 PM		315	188		450	36	100		42				1131
45 PM		287	144		455	51	51		25				1013
5:00 PM		344	198		467	55	71		47				1182
15 PM		314	171		469	57	66		29				1106
30 PM		319	160		449	46	64		29				1067
45 PM		286	152		417	29	83		46				1013

PEAK HOUR BEGINS AT: 1630 PM — PHF: 0.94

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	0	1260	701	0	1841	199	288	0	143	0	0	0	4432

COMMENTS:

TRAFFIC DATA SERVICES, INC
SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : VINEYARD AVE
E/W ST: US-101 NB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 1071707A
DATE: 11/06/07
DAY: TUESDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
LANES:		3	1		2	1				2		1	
7:00 AM		238	94		217	60				87		35	731
15 AM		253	76		267	83				105		46	830
30 AM		301	128		319	87				110		54	999
45 AM		312	60		315	77				123		56	943
8:00 AM		261	55		265	59				124		55	819
15 AM		190	40		247	68				117		36	698
30 AM		205	25		255	61				93		45	684
45 AM		196	11		223	70				123		42	665

PEAK HOUR BEGINS AT: 715 AM — PHF: 0.9

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	0	1127	319	0	1166	306	0	0	0	462	0	211	3591

FILENAME: 1071707P
DATE: 11/06/07
DAY: TUESDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
4:00 PM		272	84		302	70				159		26	913
15 PM		301	53		310	62				181		43	950
30 PM		295	43		263	68				162		40	871
45 PM		332	81		370	75				208		53	1119
5:00 PM		247	76		344	74				117		40	898
15 PM		302	53		329	88				130		31	933
30 PM		251	51		296	70				139		33	840
45 PM		256	39		272	59				154		37	817

PEAK HOUR BEGINS AT: 1600 PM — PHF: 0.86

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	0	1200	261	0	1245	275	0	0	0	710	0	162	3853

COMMENTS:

TRAFFIC DATA SERVICES, INC

SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : VENTURA RD
E/W ST: GONZALES RD
CITY: OXNARD

FILENAME: 0871705
DATE: 8/21/07
DAY: TUESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	1	2	1	1	2.5	0.5	1	2	1	2	2	0	
7:00 AM	29	124	56	30	102	12	26	55	11	47	54	5	551
15 AM	33	132	52	18	113	14	32	66	11	41	67	6	585
30 AM	41	153	74	9	134	22	39	79	11	47	90	11	710
45 AM	46	145	83	15	110	19	37	106	10	61	84	7	723
8:00 AM	37	107	66	28	86	8	21	81	17	46	67	2	566
15 AM	29	111	71	28	124	11	26	94	9	52	84	10	649
30 AM	36	84	77	27	99	13	14	80	18	42	68	8	566
45 AM	44	99	73	19	110	9	15	84	17	57	84	10	621

PEAK HOUR BEGINS AT: 730 AM — PHF: 0.92

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	153	516	294	80	454	60	123	360	47	206	325	30	2648

FILENAME: 0871705P
DATE: 8/22/07
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	38	140	80	15	171	18	29	94	29	94	104	18	830
15 PM	27	146	78	16	172	18	22	91	22	117	105	16	830
30 PM	35	145	96	21	223	16	24	127	25	120	119	25	976
45 PM	56	124	94	28	172	15	28	102	32	122	96	22	891
5:00 PM	36	160	93	23	210	22	20	116	27	131	113	18	969
15 PM	59	186	104	18	235	14	41	120	34	136	131	26	1104
30 PM	49	141	105	22	239	19	30	100	34	143	132	16	1030
45 PM	45	168	104	26	252	16	25	89	22	138	114	23	1022

PEAK HOUR BEGINS AT: 1700 PM — PHF: 0.93

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	189	655	406	89	936	71	116	425	117	548	490	83	4125

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : VENTURA RD
E/W ST: WOOLEY RD
CITY: OXNARD

FILENAME: 0580901
DATE: 5/22/08
DAY: THURSDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
LANES:	1	2	0	1	2	0	1	2	1	1	2	1	
7:00 AM	4	151	11	21	161	9	31	77	7	6	39	13	530
15 AM	13	246	18	21	194	22	52	138	9	20	77	42	852
30 AM	17	253	17	30	206	24	56	146	11	26	84	53	923
45 AM	20	267	12	29	214	16	52	161	13	24	91	44	943
8:00 AM	23	271	16	24	218	19	50	148	10	17	86	40	922
15 AM	14	159	11	22	146	12	36	80	4	20	69	31	604
30 AM	13	181	16	21	138	14	41	60	6	21	69	30	610
45 AM	11	195	13	23	157	16	31	64	14	17	60	36	637

PEAK HOUR BEGINS AT: PHF: 0.97
715 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	73	1037	63	104	832	81	210	593	43	87	338	179	3640

FILENAME: 0580901P
DATE: 6/03/08
DAY: TUESDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
4:00 PM	29	286	20	30	249	30	42	96	18	36	111	41	988
15 PM	22	306	10	32	222	44	35	101	8	58	166	51	1055
30 PM	22	246	24	47	282	37	39	98	20	43	135	43	1036
45 PM	19	260	17	34	238	37	46	121	20	50	157	56	1055
5:00 PM	15	292	14	31	313	39	38	84	13	48	176	66	1129
15 PM	22	285	19	44	263	41	30	130	32	57	168	45	1136
30 PM	20	283	22	29	339	32	32	93	24	61	155	51	1141
45 PM	24	261	18	44	250	46	33	90	20	42	140	54	1022

PEAK HOUR BEGINS AT: PHF: 0.98
1645 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	76	1120	72	138	1153	149	146	428	89	216	656	218	4461

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : OXNARD BLVD
E/W ST: 5TH ST
CITY: OXNARD

FILENAME: 0580902
DATE: 5/22/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	1	2	0	1	2	0	1	2	0	1	1	1	
7:00 AM	3	161	5	23	146	6	7	55	3	5	18	15	447
15 AM	8	203	17	16	163	5	6	54	1	7	30	11	521
30 AM	6	188	22	20	237	7	10	85	1	8	25	12	621
45 AM	4	234	15	45	265	6	5	129	2	6	33	13	757
8:00 AM	6	254	12	33	205	7	8	79	3	8	40	13	668
15 AM	7	168	8	26	170	12	6	57	2	13	41	17	527
30 AM	6	145	12	28	134	12	8	61	2	13	41	11	473
45 AM	15	147	16	41	146	14	6	51	0	10	44	20	510

PEAK HOUR BEGINS AT: PHF: 0.85
730 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	23	844	57	124	877	32	29	350	8	35	139	55	2573

FILENAME: 0580902P
DATE: 5/22/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	21	251	15	50	346	18	14	66	10	17	77	25	910
15 PM	12	194	14	38	249	15	14	71	10	7	72	18	714
30 PM	22	239	23	39	258	16	11	78	13	29	84	35	847
45 PM	23	261	17	31	302	15	15	57	12	28	87	21	869
5:00 PM	14	282	15	28	294	13	17	64	10	23	74	34	868
15 PM	15	255	16	31	274	16	22	54	12	14	76	31	816
30 PM	11	304	14	30	269	11	24	70	11	20	83	29	876
45 PM	8	261	16	39	307	11	15	66	21	31	84	24	883

PEAK HOUR BEGINS AT: PHF: 0.97
1700 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	48	1102	61	128	1144	51	78	254	54	88	317	118	3443

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : ROSE AVE
E/W ST: US-101 NB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 0580903
DATE: 6/03/08
DAY: TUESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	X	3	1	X	3	1	X	X	X	1.5	X	0.5	
7:00 AM		166	104		144	18				100		16	548
15 AM		203	145		178	33				108		15	682
30 AM		257	179		227	42				103		19	827
45 AM		250	250		282	49				147		43	1021
8:00 AM		254	153		245	50				86		21	809
15 AM		270	120		212	53				97		28	780
30 AM		178	127		177	34				85		20	621
45 AM		228	125		176	42				81		23	675

PEAK HOUR BEGINS AT: PHF: 0.84
730 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =		1031	702		966	194				433		111	3437

FILENAME: 0580903P
DATE: 6/04/08
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM		323	172		324	104				120		67	1110
15 PM		364	166		290	112				150		53	1135
30 PM		343	219		243	105				165		54	1129
45 PM		357	187		316	123				153		39	1175
5:00 PM		471	288		335	116				172		45	1427
15 PM		306	178		345	118				119		44	1110
30 PM		370	190		312	108				136		47	1163
45 PM		393	179		262	95				165		39	1133

PEAK HOUR BEGINS AT: PHF: 0.85
1645 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =		1504	843		1306	465				580		175	4875

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : ROSE AVE
E/W ST: US-101 SB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 0580904
DATE: 6/03/08
DAY: TUESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	X	3	1	X	3	0	1.5	X	1.5	X	X	X	
7:00 AM		246	130		231	31	48		147				833
15 AM		270	147		255	23	43		121				859
30 AM		458	172		262	27	44		128				1091
45 AM		406	144		399	32	66		189				1236
8:00 AM		355	115		301	22	66		195				1054
15 AM		340	98		303	29	44		148				962
30 AM		329	113		238	25	32		139				876
45 AM		279	82		279	20	71		140				871

PEAK HOUR BEGINS AT: PHF: 0.88
730 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =		1559	529		1265	110	220		660				4343

FILENAME: 0580904P
DATE: 6/03/08
DAY: TUESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM		417	116		444	34	93		194				1298
15 PM		432	106		396	29	96		198				1257
30 PM		474	105		446	35	87		211				1358
45 PM		470	98		433	35	106		233				1375
5:00 PM		556	107		468	43	93		220				1487
15 PM		461	86		464	29	106		246				1392
30 PM		501	95		417	29	99		185				1326
45 PM		414	84		421	31	114		202				1266

PEAK HOUR BEGINS AT: PHF: 0.94
1630 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =		1961	396		1811	142	392		910				5612

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : ROSE AVE
E/W ST: BARD RD
CITY: OXNARD

FILENAME: 0580905
DATE: 6/04/08
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	1	2	1	1	2	1	1	2	0	1	2	0	
7:00 AM	7	67	2	20	44	12	48	41	5	0	15	23	284
15 AM	3	98	0	21	47	19	52	55	1	1	22	39	358
30 AM	7	173	5	31	90	44	50	71	9	0	32	56	568
45 AM	8	224	6	14	133	52	70	42	5	6	33	55	648
8:00 AM	11	120	9	31	106	38	65	52	14	0	31	23	500
15 AM	8	89	4	15	63	22	48	42	6	3	16	24	340
30 AM	2	76	2	9	46	26	31	33	1	2	11	25	264
45 AM	7	62	3	10	54	22	27	30	4	1	19	12	251

PEAK HOUR BEGINS AT: PHF: 0.8
715 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	29	615	20	97	376	153	237	220	29	7	118	173	2074

FILENAME: 0580905P
DATE: 6/04/08
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	6	94	1	11	113	73	49	39	8	3	61	34	492
15 PM	7	71	0	14	98	58	48	33	10	3	62	22	426
30 PM	11	88	5	20	123	69	47	35	7	4	76	41	526
45 PM	9	63	4	20	114	66	42	41	15	5	90	33	502
5:00 PM	16	86	3	14	132	78	44	32	11	4	86	32	538
15 PM	11	68	6	16	140	87	37	37	9	1	96	36	544
30 PM	11	90	3	11	110	56	49	40	5	6	66	33	480
45 PM	9	95	5	22	97	66	56	31	13	4	65	38	501

PEAK HOUR BEGINS AT: PHF: 0.97
1630 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	47	305	18	70	509	300	170	145	42	14	348	142	2110

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : ROSE AVE
E/W ST: PLEASANT VALLEY RD
CITY: OXNARD

FILENAME: 0580906
DATE: 6/03/08
DAY: TUESDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
LANES:	1	2	1	1	2	1	1	2	1	1	2	1	
7:00 AM	8	21	13	24	11	37	35	113	5	6	75	7	355
15 AM	6	15	7	29	11	32	53	134	0	5	103	23	418
30 AM	14	22	18	40	8	30	44	185	7	1	117	27	513
45 AM	20	30	14	40	19	45	95	192	7	2	157	33	654
8:00 AM	10	8	6	35	21	55	72	140	11	12	88	26	484
15 AM	13	18	7	19	13	44	47	106	4	10	81	28	390
30 AM	4	21	8	22	11	38	65	91	2	13	79	31	385
45 AM	7	24	8	28	11	48	56	60	0	2	77	35	356

PEAK HOUR BEGINS AT: PHF: 0.79
715 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	50	75	45	144	59	162	264	651	25	20	465	109	2069

FILENAME: 0580906P
DATE: 6/03/08
DAY: TUESDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
4:00 PM	14	33	1	21	27	38	31	80	1	3	79	14	342
15 PM	11	31	4	25	22	46	34	76	2	6	86	19	362
30 PM	12	23	3	29	26	36	45	86	4	9	110	23	406
45 PM	20	19	6	31	39	65	48	98	10	14	177	37	564
5:00 PM	21	17	4	36	44	69	50	103	5	12	171	36	568
15 PM	16	14	7	33	39	54	53	98	3	10	164	29	520
30 PM	10	18	3	33	37	75	57	80	6	13	168	37	537
45 PM	18	26	7	42	52	61	72	114	8	24	163	26	613

PEAK HOUR BEGINS AT: PHF: 0.91
1700 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	65	75	21	144	172	259	232	395	22	59	666	128	2238

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : CHANNEL ISLANDS BLVD
E/W ST: CHANNEL ISLANDS BLVD/SR-1 SB ON RAMP
CITY: OXNARD

FILENAME: 0580907
DATE: 6/05/08
DAY: THURSDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
LANES:	1.5	0	0.5	0	1	0	0	1	1	X	X	X	
7:00 AM	65	0	2	2	2	0	1	88	112				272
15 AM	97	0	1	1	0	0	1	84	83				267
30 AM	122	0	8	1	0	0	1	100	120				352
45 AM	182	0	5	0	0	0	2	85	143				417
8:00 AM	113	0	3	0	1	0	0	96	129				342
15 AM	54	0	1	0	0	0	0	55	60				170
30 AM	58	0	1	0	0	0	0	62	68				189
45 AM	64	0	2	0	1	0	1	29	62				159

PEAK HOUR BEGINS AT: PHF: 0.83
715 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	514	0	17	2	1	0	4	365	475				1378

FILENAME: 0580907P
DATE: 6/05/08
DAY: THURSDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
4:00 PM	205	0	3	1	0	0	0	38	95				342
15 PM	191	0	0	0	0	0	0	43	99				333
30 PM	196	0	0	0	0	0	0	32	78				306
45 PM	236	0	0	1	0	0	0	31	104				372
5:00 PM	207	0	2	2	0	0	0	38	98				347
15 PM	201	0	3	2	0	0	0	26	78				310
30 PM	222	0	2	0	0	0	0	41	118				383
45 PM	165	0	0	0	0	0	0	31	106				302

PEAK HOUR BEGINS AT: PHF: 0.92
1645 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	866	0	7	5	0	0	0	136	398				1412

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST: BARD RD/DRIVEWAY
E/W ST: PLEASANT VALLEY RD
CITY: OXNARD

FILENAME: 0580908
DATE: 6/04/08
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	0	1	0	1.5	0.5	1	1	2	0	1	2	0	
7:00 AM	0	0	6	53	0	1	3	156	1	6	99	28	353
15 AM	0	0	0	68	0	4	6	178	1	4	89	54	404
30 AM	0	0	4	93	1	6	5	207	2	7	112	85	522
45 AM	0	0	3	66	1	3	20	239	2	2	152	97	585
8:00 AM	0	0	4	71	0	2	14	241	1	3	146	92	574
15 AM	0	0	2	74	0	1	11	236	0	3	140	87	554
30 AM	0	0	1	43	2	2	7	126	2	3	88	38	312
45 AM	0	0	7	32	2	1	5	83	2	2	94	35	263

PEAK HOUR BEGINS AT: 730 AM — PHF: 0.96

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	0	0	13	304	2	12	50	923	5	15	550	361	2235

FILENAME: 0580908P
DATE: 6/05/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	0	0	2	32	8	4	5	121	1	6	239	144	562
15 PM	0	0	0	40	1	7	5	146	0	9	190	101	499
30 PM	0	0	6	38	2	4	7	122	0	9	196	120	504
45 PM	0	0	3	42	2	2	15	134	0	11	225	135	569
5:00 PM	0	0	2	56	4	7	9	117	0	8	223	128	554
15 PM	0	0	5	44	3	8	11	127	0	11	261	157	627
30 PM	0	0	4	33	2	6	12	89	0	13	217	98	474
45 PM	0	0	2	28	3	4	11	92	0	14	225	115	494

PEAK HOUR BEGINS AT: 1630 PM — PHF: 0.9

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	0	0	16	180	11	21	42	500	0	39	905	540	2254

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : RICE AVE
E/W ST: US-101 SB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 0580909
DATE: 6/05/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	X	2	0	1	2	X	0.5	0.5	1	X	X	X	
7:00 AM		140	120	26	209		15	0	149				659
15 AM		137	116	24	233		17	0	184				711
30 AM		238	173	40	313		28	0	185				977
45 AM		225	149	32	298		17	0	177				898
8:00 AM		238	139	24	330		21	0	187				939
15 AM		171	122	40	225		22	2	152				734
30 AM		195	134	29	252		18	2	132				762
45 AM		160	145	25	275		18	1	109				733

PEAK HOUR BEGINS AT: 730 AM — PHF: 0.91

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =		872	583	136	1166		88	2	701				3548

FILENAME: 0580909P
DATE: 6/05/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM		351	132	52	290		25	0	114				964
15 PM		346	147	64	359		38	0	116				1070
30 PM		353	150	52	325		24	0	108				1012
45 PM		329	127	50	286		29	0	128				949
5:00 PM		359	184	59	319		33	0	105				1059
15 PM		313	143	52	274		33	1	117				933
30 PM		295	140	66	322		45	0	129				997
45 PM		262	103	39	254		32	0	108				798

PEAK HOUR BEGINS AT: 1615 PM — PHF: 0.96

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =		1387	608	225	1289		124	0	457				4090

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : RICE AVE
E/W ST: CAMINO DEL SOL
CITY: OXNARD

FILENAME: 0580910
DATE: 6/04/08
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	1	3	1	1	3	0	1	2	1	1	2	1	
7:00 AM	14	135	9	29	237	16	27	41	11	7	18	22	566
15 AM	19	162	22	38	240	17	30	54	28	5	19	13	647
30 AM	19	203	16	60	258	20	33	37	9	19	32	22	728
45 AM	43	257	34	70	252	27	39	86	20	6	45	7	886
8:00 AM	21	218	16	39	281	33	17	30	17	14	31	13	730
15 AM	17	171	13	42	168	15	16	48	9	8	26	15	548
30 AM	11	186	7	7	215	25	11	23	13	7	21	13	539
45 AM	11	173	8	26	163	18	10	31	23	13	17	12	505

PEAK HOUR BEGINS AT: 715 AM — PHF: 0.84

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	102	840	88	207	1031	97	119	207	74	44	127	55	2991

FILENAME: 0580910P
DATE: 5/22/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	9	261	13	9	243	46	17	39	18	12	81	50	798
15 PM	57	277	8	16	256	67	21	26	20	13	60	37	858
30 PM	40	290	10	16	245	58	33	40	14	31	72	66	915
45 PM	61	332	9	17	316	64	24	44	9	16	98	36	1026
5:00 PM	53	265	13	17	286	44	34	72	17	23	126	50	1000
15 PM	59	287	7	11	275	39	22	35	9	10	78	23	855
30 PM	50	297	7	18	259	47	28	20	10	24	82	45	887
45 PM	55	282	9	13	224	36	18	19	6	5	50	41	758

PEAK HOUR BEGINS AT: 1615 PM — PHF: 0.93

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	211	1164	40	66	1103	233	112	182	60	83	356	189	3799

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : RICE AVE
E/W ST: WOOLEY RD
CITY: OXNARD

FILENAME: 0580911
DATE: 5/27/08
DAY: TUESDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
LANES:	1	2	X	X	2	1	2	X	1	X	X	X	
7:00 AM	5	214			206	36	77		9				547
15 AM	11	251			227	39	84		14				626
30 AM	3	326			247	50	128		5				759
45 AM	2	338			178	55	122		8				703
8:00 AM	9	218			189	43	88		6				553
15 AM	5	186			160	46	64		9				470
30 AM	15	170			151	38	66		5				445
45 AM	4	178			135	32	63		11				423

PEAK HOUR BEGINS AT: PHF: 0.87
715 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	25	1133			841	187	422		33				2641

FILENAME: 0580911P
DATE: 6/04/08
DAY: WEDNESDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
4:00 PM	26	259			284	100	76		3				748
15 PM	31	264			301	96	73		6				771
30 PM	29	272			294	78	65		3				741
45 PM	15	253			330	92	101		4				795
5:00 PM	17	260			368	91	90		5				831
15 PM	24	268			374	96	83		1				846
30 PM	11	210			262	75	46		5				609
45 PM	5	197			310	61	71		5				649

PEAK HOUR BEGINS AT: PHF: 0.95
1630 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	85	1053			1366	357	339		13				3213

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : RICE AVE
E/W ST: CHANNEL ISLANDS BLVD
CITY: OXNARD

FILENAME: 0580912
DATE: 6/04/08
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	1	2	X	X	2	0	2	X	1	X	X	X	
7:00 AM	18	95			163	40	107		24				447
15 AM	27	133			180	36	95		33				504
30 AM	22	152			136	39	117		51				517
45 AM	15	181			177	54	148		15				590
8:00 AM	20	147			130	32	62		26				417
15 AM	14	125			122	31	66		16				374
30 AM	10	117			135	22	64		11				359
45 AM	15	125			130	31	50		11				362

PEAK HOUR BEGINS AT: 700 AM — PHF: 0.87

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	82	561			656	169	467		123				2058

FILENAME: 0580912P
DATE: 5/27/08
DAY: TUESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	60	218			141	153	52		8				632
15 PM	72	171			198	167	49		10				667
30 PM	81	264			194	178	37		4				758
45 PM	85	252			192	161	51		8				749
5:00 PM	97	224			219	162	49		4				755
15 PM	87	204			252	176	37		6				762
30 PM	63	214			190	171	42		6				686
45 PM	52	144			206	173	32		4				611

PEAK HOUR BEGINS AT: 1630 PM — PHF: 0.99

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	350	944			857	677	174		22				3024

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : RICE AVE/SR-1 NB ON/OFF RAMPS
E/W ST: PLEASANT VALLEY RD
CITY: OXNARD

FILENAME: 0580913
DATE: 6/05/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	2	0.5	0.5	X	X	X	1	2	X	X	2	0	
7:00 AM	18	0	1				56	197			104	12	388
15 AM	20	1	5				71	211			137	29	474
30 AM	31	0	6				82	288			173	18	598
45 AM	26	3	6				118	274			156	18	601
8:00 AM	19	0	5				70	209			113	17	433
15 AM	21	1	2				46	186			119	14	389
30 AM	30	0	7				40	129			66	15	287
45 AM	21	1	3				52	127			85	21	310

PEAK HOUR BEGINS AT: PHF: 0.88
715 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	96	4	22				341	982			579	82	2106

FILENAME: 0580913P
DATE: 6/05/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	63	17	3				26	162			287	31	589
15 PM	96	2	3				49	178			264	29	621
30 PM	125	3	2				58	165			307	36	696
45 PM	104	3	5				53	144			328	54	691
5:00 PM	103	1	7				52	165			362	48	738
15 PM	70	3	1				46	156			339	44	659
30 PM	80	1	2				46	127			244	33	533
45 PM	66	2	8				58	120			209	35	498

PEAK HOUR BEGINS AT: PHF: 0.94
1630 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	402	10	15				209	630			1336	182	2784

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : RICE AVE
E/W ST: HUENEME RD
CITY: OXNARD

FILENAME: 0580914
DATE: 6/05/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	X	X	X	1	X	1	2	1	X	X	1	1	
7:00 AM				12		26	20	107			78	10	253
15 AM				10		28	17	96			75	6	232
30 AM				7		30	42	122			102	6	309
45 AM				16		28	32	115			99	7	297
8:00 AM				6		17	23	92			72	4	214
15 AM				12		25	27	105			85	11	265
30 AM				13		12	30	69			68	4	196
45 AM				5		11	14	70			42	8	150

PEAK HOUR BEGINS AT: PHF: 0.88
700 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =				45		112	111	440			354	29	1091

FILENAME: 0580914P
DATE: 6/05/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM				4		23	30	75			151	22	305
15 PM				6		27	22	80			164	21	320
30 PM				5		25	36	109			173	25	373
45 PM				3		29	34	112			174	30	382
5:00 PM				8		45	40	109			177	22	401
15 PM				4		41	37	115			174	28	399
30 PM				3		39	34	102			161	26	365
45 PM				7		51	21	53			113	11	256

PEAK HOUR BEGINS AT: PHF: 0.97
1630 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =				20		140	147	445			698	105	1555

COMMENTS:

TRAFFIC DATA SERVICES, INC

SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : DEL NORTE BLVD
E/W ST: SR-101 WB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 0371401
DATE: 3/21/07
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	0	1			1	0				0	1	0	
7:00 AM	13	5			22	4				135	0	6	185
15 AM	16	13			13	2				135	1	2	182
30 AM	24	19			30	5				142	0	6	226
45 AM	14	16			25	10				134	1	10	210
8:00 AM	26	14			21	10				149	0	6	226
15 AM	11	14			26	1				110	0	3	165
30 AM	22	9			16	5				81	0	8	141
45 AM	15	12			18	3				82	0	8	138

PEAK HOUR BEGINS AT: 715 AM — PHF: 0.93

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	80	62	0	0	89	27	0	0	0	560	2	24	844

FILENAME: 0371401P
DATE: 3/21/07
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	49	15			39	7				72	3	23	208
15 PM	64	16			19	6				86	1	31	223
30 PM	79	49			28	11				68	0	16	251
45 PM	68	22			38	8				93	2	20	251
5:00 PM	78	31			50	9				73	0	27	268
15 PM	82	45			42	8				80	0	13	270
30 PM	62	44			30	10				64	0	21	231
45 PM	33	35			19	5				79	0	20	191

PEAK HOUR BEGINS AT: 1630 PM — PHF: 0.96

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	307	147	0	0	158	36	0	0	0	314	2	76	1040

COMMENTS:

TRAFFIC DATA SERVICES, INC

SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : DEL NORTE BLVD
E/W ST: SR-101 EB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 0371402A
DATE: 3/21/07
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:		1	0	0	1		0.5	0	0.5				
7:00 AM		11	75	17	140		4	0	39				286
15 AM		25	73	11	153		4	0	68				334
30 AM		26	60	18	117		9	0	30				260
45 AM		30	90	15	173		2	1	60				371
8:00 AM		34	74	8	163		7	0	41				327
15 AM		24	74	16	126		4	0	51				295
30 AM		33	63	13	102		5	1	38				255
45 AM		28	62	15	92		5	0	22				224

PEAK HOUR BEGINS AT: 715 AM — PHF: 0.87

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	0	115	297	52	606	0	22	1	199	0	0	0	1292

FILENAME: 0371402P
DATE: 3/21/07
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM		79	83	13	78		8	0	21				282
15 PM		85	103	11	101		5	0	30				335
30 PM		123	138	11	87		8	0	20				387
45 PM		107	129	15	125		12	0	27				415
5:00 PM		133	163	14	92		9	0	38				449
15 PM		105	146	8	80		14	0	21				374
30 PM		63	98	16	74		6	0	14				271
45 PM		53	83	9	78		10	0	11				244

PEAK HOUR BEGINS AT: 1630 PM — PHF: 0.9

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	0	468	576	48	384	0	43	0	106	0	0	0	1625

COMMENTS:

TRAFFIC DATA SERVICES, INC

SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : DEL NORTE BLVD
E/W ST: CAMINO DEL SOL
CITY: OXNARD

FILENAME: 0371403
DATE: 3/22/07
DAY: THURSDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
LANES:	1	2	0	1	2	1	1	1	1	0	1	0	
7:00 AM	16	73	3	9	108	38	19	5	24	2	0	1	298
15 AM	19	64	1	7	107	28	31	3	22	5	0	3	290
30 AM	15	74	2	5	122	30	39	3	25	2	0	4	321
45 AM	13	94	3	18	114	47	45	7	32	1	0	1	375
8:00 AM	11	76	2	10	95	49	42	3	24	1	2	0	315
15 AM	11	79	3	15	88	33	34	2	21	6	5	3	300
30 AM	10	55	2	8	70	34	20	4	19	3	3	2	230
45 AM	13	46	1	10	83	26	22	2	19	0	2	4	228

PEAK HOUR BEGINS AT: PHF: 0.87
730 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	50	323	10	48	419	159	160	15	102	10	7	8	1311

FILENAME: 0371403P
DATE: 3/22/07
DAY: THURSDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
4:00 PM	36	90	1	8	65	31	36	1	15	2	6	2	293
15 PM	42	103	1	10	75	32	41	4	14	2	3	0	327
30 PM	42	133	1	13	78	54	80	1	10	9	10	6	437
45 PM	44	112	0	9	79	44	46	3	8	3	6	4	358
5:00 PM	47	149	3	8	94	57	80	2	14	8	2	7	471
15 PM	31	102	0	3	49	41	42	2	12	8	3	1	294
30 PM	39	113	0	6	64	51	43	1	10	3	2	1	333
45 PM	35	80	2	4	69	39	25	0	12	1	2	1	270

PEAK HOUR BEGINS AT: PHF: 0.85
1615 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	175	497	5	40	326	187	247	10	46	22	21	17	1593

COMMENTS:

TRAFFIC DATA SERVICES, INC

SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : DEL NORTE BLVD
E/W ST: 5TH ST (SR-34)
CITY: OXNARD

FILENAME: 0371404
DATE: 3/22/07
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	0	1	0	1	0	1	1	1	0	0	1	0	
7:00 AM	0	4	0	25	1	29	55	97	1	1	46	7	266
15 AM	0	3	0	16	1	44	42	141	0	0	33	6	286
30 AM	0	4	0	22	2	56	51	191	1	0	61	11	399
45 AM	0	0	0	20	0	38	73	189	1	0	77	13	411
8:00 AM	0	1	0	14	1	32	38	132	0	0	61	5	284
15 AM	0	1	0	15	0	36	51	121	0	0	55	5	284
30 AM	0	0	0	15	0	34	36	83	0	0	72	7	247
45 AM	0	1	0	16	1	29	33	93	0	0	45	7	225

PEAK HOUR BEGINS AT: 715 AM — PHF: 0.84

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	0	8	0	72	4	170	204	653	2	0	232	35	1380

FILENAME: 0371404P
DATE: 3/22/07
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	0	2	0	12	1	43	30	80	0	0	128	10	306
15 PM	0	1	0	4	0	43	31	87	0	0	188	15	369
30 PM	0	0	1	10	0	51	32	105	1	0	181	29	410
45 PM	1	0	0	12	0	37	20	98	0	0	204	23	395
5:00 PM	0	0	0	16	0	63	39	79	0	0	124	9	330
15 PM	0	0	0	16	1	27	20	96	0	0	198	19	377
30 PM	1	3	0	21	0	45	28	99	1	0	151	10	359
45 PM	0	0	0	9	0	36	32	70	0	0	112	11	270

PEAK HOUR BEGINS AT: 1630 PM — PHF: 0.92

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	1	0	1	54	1	178	111	378	1	0	707	80	1512

COMMENTS:

APPENDIX B

LEVEL OF SERVICE WORKSHEETS: EXISTING & 2030 OTM SCENARIOS

20. Ventura & Gonzales

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	153	.10*	189	.12*
NBT	2	3200	516	.16	655	.20
NBR	1	1600	294	.18	406	.25
SBL	1	1600	80	.05	89	.06
SBT	3	4800	454	.11*	936	.21*
SBR	0	0	60		71	
EBL	1	1600	123	.08*	116	.07
EBT	2	3200	360	.11	425	.13*
EBR	1	1600	47	.03	117	.07
WBL	2	3200	206	.06	548	.17*
WBT	2	3200	325	.11*	490	.18
WBR	0	0	30		83	

TOTAL CAPACITY UTILIZATION .40 .63

24. Ventura & Wooley

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	73	.05	76	.05
NBT	2	3200	1037	.34*	1120	.37*
NBR	0	0	63		72	
SBL	1	1600	104	.07*	138	.09*
SBT	2	3200	832	.29	1153	.41
SBR	0	0	81		149	
EBL	1	1600	210	.13	146	.09*
EBT	2	3200	593	.19*	428	.13
EBR	1	1600	43	.03	89	.06
WBL	1	1600	87	.05*	216	.14
WBT	2	3200	338	.11	656	.21*
WBR	1	1600	179	.11	218	.14

TOTAL CAPACITY UTILIZATION .65 .76

45. Oxnard & Vineyard

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	83	.03	295	.09*
NBT	2	3200	560	.18*	694	.22
NBR	2	3200	780	.24	779	.24
SBL	2	3200	98	.03*	181	.06
SBT	3	4800	592	.14	819	.21*
SBR	0	0	98		177	
EBL	1.5		259	.16	233	
EBT	2.5	6400	1162	.24*	595	.13*
EBR	1	1600	175	.11	140	.09
WBL	3	4800	594	.12	901	.19
WBT	2	3200	441	.14*	1033	.33*
WBR	0	0	17		20	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .59 .76

46. Oxnard & Gonzales

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	93	.03	180	.06*
NBT	3	4800	734	.15*	864	.18
NBR	1	1600	378	.24	305	.19
SBL	2	3200	295	.09*	405	.13
SBT	3	4800	958	.20	1287	.27*
SBR	1	1600	61	.04	112	.07
EBL	2	3200	223	.07	242	.08
EBT	2	3200	927	.29*	977	.31*
EBR	1	1600	59	.04	121	.08
WBL	2	3200	268	.08*	392	.12*
WBT	3	4800	733	.15	1154	.24
WBR	1	1600	353	.22	368	.23
Right Turn Adjustment			NBR	.03*		

TOTAL CAPACITY UTILIZATION .64 .76

49. Oxnard & 5th St

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	23	.01	48	.03
NBT	2	3200	844	.28*	1102	.36*
NBR	0	0	57		61	
SBL	1	1600	124	.08*	128	.08*
SBT	2	3200	877	.28	1144	.37
SBR	0	0	32		51	
EBL	1	1600	29	.02	78	.05*
EBT	2	3200	350	.11*	254	.10
EBR	0	0	8		54	
WBL	1	1600	35	.02*	88	.06
WBT	1	1600	139	.09	317	.20*
WBR	1	1600	55	.03	118	.07

TOTAL CAPACITY UTILIZATION .49 .69

61. Rose & Auto Center

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	102	.06*	148	.09
NBT	2	3200	606	.19	731	.23*
NBR	1	1600	443	.28	800	.50
SBL	1	1600	164	.10	175	.11*
SBT	2	3200	772	.25*	611	.19
SBR	0	0	25		12	
EBL	1	1600	43	.03	9	.01
EBT	1	1600	42	.03*	53	.03*
EBR	1	1600	88	.06	177	.11
WBL	2.5		177		926	
WBT	0.5	4800	27	.04*	71	.21*
WBR	1	1600	91	.06	213	.13
Right Turn Adjustment			NBR	.03*	NBR	.06*

Note: Assumes E/W Split Phasing
Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION .41 .64

65. Rose & Gonzales

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	266	.08	396	.12*
NBT	3	4800	1125	.23*	1190	.25
NBR	1	1600	200	.13	102	.06
SBL	2	3200	311	.10*	309	.10
SBT	3	4800	1021	.21	1477	.31*
SBR	1	1600	296	.19	616	.39
EBL	2	3200	704	.22*	590	.18*
EBT	3	4800	858	.18	584	.12
EBR	1	1600	240	.15	197	.12
WBL	1	1600	79	.05	153	.10
WBT	3	4800	342	.07*	1084	.23*
WBR	1	1600	137	.09	267	.17

TOTAL CAPACITY UTILIZATION .62 .84

66. Rose & Camino del Sol

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	127	.08	97	.06
NBT	2	3200	1163	.36*	1267	.40*
NBR	1	1600	215	.13	148	.09
SBL	1	1600	180	.11*	139	.09*
SBT	2	3200	1196	.37	1248	.39
SBR	f		77		263	
EBL	1	1600	188	.12	132	.08
EBT	2	3200	247	.12*	177	.09*
EBR	0	0	133		95	
WBL	1	1600	150	.09*	252	.16*
WBT	2	3200	148	.05	456	.14
WBR	1	1600	91	.06	239	.15

TOTAL CAPACITY UTILIZATION .68 .74

68. Rose & 5th

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	17	.01	20	.01*
NBT	3	4800	1175	.26*	1221	.27
NBR	0	0	97		52	
SBL	1	1600	41	.03*	31	.02
SBT	3	4800	1164	.27	1266	.31*
SBR	0	0	148		208	
EBL	2	3200	231	.07	332	.10
EBT	1	1600	440	.28*	318	.20*
EBR	1	1600	31	.02	40	.03
WBL	1	1600	133	.08*	216	.14*
WBT	2	3200	259	.09	567	.20
WBR	0	0	26		69	
TOTAL CAPACITY UTILIZATION				**.65**		**.66**

69. Rose & Wooley

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	32	.02*	33	.02*
NBT	2	3200	1038	.32	849	.27
NBR	1	1600	103	.06	77	.05
SBL	1	1600	22	.01	9	.01
SBT	2	3200	1001	.31*	1256	.39*
SBR	f		391		413	
EBL	2	3200	237	.07	330	.10*
EBT	2	3200	297	.10*	210	.08
EBR	0	0	34		59	
WBL	1	1600	62	.04*	113	.07
WBT	2	3200	140	.05	354	.12*
WBR	0	0	19		27	
TOTAL CAPACITY UTILIZATION				**.47**		**.63**

71. Rose & Oxnard

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	150	.09*	149	.09*
NBT	2	3200	771	.24	752	.24
NBR	1	1600	33	.02	23	.01
SBL	2	3200	35	.01	58	.02
SBT	2	3200	599	.19*	1025	.32*
SBR	f		28		48	
EBL	0	0	0		0	
EBT	2	3200	307	.10*	201	.06
EBR	f		204		322	
WBL	0	0	1		0	
WBT	2	3200	250	.08	729	.23*
WBR	f		74		84	
TOTAL CAPACITY UTILIZATION				**.38**		**.64**

72. Rose & Channel Islands

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	149	.05	262	.08
NBT	2	3200	635	.20*	53	.02*
NBR	1	1600	98	.06	9	.01
SBL	1	1600	108	.07*	195	.12*
SBT	3	4800	527	.14	96	.03
SBR	0	0	137		335	.21
EBL	2	3200	374	.12	460	.14*
EBT	2	3200	647	.20*	390	.12
EBR	1	1600	190	.12	186	.12
WBL	2	3200	153	.05*	276	.09
WBT	2	3200	279	.09	762	.24*
WBR	1	1600	4	.00	8	.01
Right Turn Adjustment					SBR	.04*
TOTAL CAPACITY UTILIZATION				**.52**		**.56**

73. Rose & Bard

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	29	.02	47	.03*
NBT	2	3200	615	.19*	305	.10
NBR	1	1600	20	.01	18	.01
SBL	1	1600	197	.12*	70	.04
SBT	2	3200	376	.12	509	.16*
SBR	1	1600	153	.10	300	.19
EBL	1	1600	237	.15*	170	.11*
EBT	2	3200	220	.08	145	.06
EBR	0	0	29		42	
WBL	1	1600	7	.00	14	.01
WBT	2	3200	118	.07*	348	.15*
WBR	0	0	173	.11	142	

TOTAL CAPACITY UTILIZATION .53 .45

74. Rose & Pleasant Valley

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03	65	.04
NBT	2	3200	75	.02*	75	.02*
NBR	1	1600	45	.03	21	.01
SBL	1	1600	144	.09*	144	.09*
SBT	2	3200	59	.02	172	.05
SBR	1	1600	162	.10	259	.16
EBL	1	1600	264	.17*	232	.15*
EBT	2	3200	651	.20	395	.12
EBR	1	1600	25	.02	22	.01
WBL	1	1600	20	.01	59	.04
WBT	2	3200	465	.15*	666	.21*
WBR	1	1600	109	.07	128	.08

TOTAL CAPACITY UTILIZATION .43 .47

77. Dupont & Channel Islands

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	2		2	
NBT	1	1600	50	.03	107	.07
NBR	1	1600	375	.23	324	.20
SBL	1	1600	82	.05	50	.03
SBT	1	1600	128	.11*	166	.13*
SBR	0	0	50		43	
EBL	1	1600	12	.01	50	.03
EBT	1	1600	24	.02*	55	.03*
EBR	1	1600	28	.02	243	.15
WBL	1	1600	251	.16*	635	.40*
WBT	2	3200	103	.03	168	.05
WBR	1	1600	38	.02	148	.09
Right Turn Adjustment			NBR	.05*	EBR	.12*

TOTAL CAPACITY UTILIZATION .34 .68

78. Bard & Pleasant Valley

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1600	0	.01*	0	.01*
NBR	0	0	13		16	
SBL	1.5		304		180	
SBT	0.5	3200	2	.10*	11	.06*
SBR	1	1600	12	.01	21	.01
EBL	1	1600	50	.03*	42	.03*
EBT	2	3200	923	.29	500	.16
EBR	0	0	5		0	
WBL	1	1600	15	.01	39	.02
WBT	2	3200	550	.28*	905	.45*
WBR	0	0	361		540	

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .42 .55

79. Santa Clara & Auto Center

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	205	.13	400	.25*
NBT	1	1600	378	.24*	495	.31
NBR	f		550		1006	
SBL	1	1600	81	.05*	62	.04
SBT	2	3200	329	.13	598	.21*
SBR	0	0	72		74	
EBL	1	1600	67	.04	185	.12*
EBT	1	1600	60	.04*	81	.05
EBR	1	1600	227	.14	498	.31
WBL	2	3200	747	.23*	542	.17
WBT	1	1600	168	.11	261	.16*
WBR	1	1600	27	.02	33	.02
Right Turn Adjustment					EBR	.01*
TOTAL CAPACITY UTILIZATION				**.56**		**.75**

81. Rice & Gonzales

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	209	.07*	344	.11*
NBT	2	3200	952	.30	1105	.35
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1251	.26*	1327	.28*
SBR	1	1600	630	.39	425	.27
EBL	2	3200	444	.14*	692	.22*
EBT	0	0	0		0	
EBR	1	1600	14	.01	275	.17
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			SBR	.02*		
TOTAL CAPACITY UTILIZATION				**.49**		**.61**

82. Rice & Camino Del Sol

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	102	.06	211	.13*
NBT	3	4800	840	.18*	1164	.24
NBR	1	1600	88	.06	40	.03
SBL	1	1600	207	.13*	66	.04
SBT	3	4800	1031	.21	1103	.23*
SBR	d	1600	97	.06	233	.15
EBL	1	1600	119	.07*	112	.07*
EBT	2	3200	207	.06	182	.06
EBR	1	1600	74	.05	60	.04
WBL	1	1600	44	.03	83	.05
WBT	2	3200	127	.04*	356	.11*
WBR	1	1600	55	.03	189	.12
TOTAL CAPACITY UTILIZATION				**.42**		**.54**

84. Rice & Fifth

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	14	.01	29	.02*
NBT	2	3200	1069	.33*	1014	.32
NBR	1	1600	328	.21	233	.15
SBL	1	1600	21	.01*	20	.01
SBT	2	3200	843	.26	1356	.42*
SBR	1	1600	100	.06	229	.14
EBL	1	1600	120	.08	78	.05
EBT	2	3200	353	.12*	293	.10*
EBR	0	0	18		12	
WBL	1	1600	117	.07*	305	.19*
WBT	2	3200	252	.08	492	.17
WBR	0	0	19		43	
TOTAL CAPACITY UTILIZATION				**.53**		**.73**

85. Rice & Wooley

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	25	.02	85	.05*
NBT	2	3200	1133	.35*	1053	.33
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	841	.26	1366	.43*
SBR	1	1600	187	.12	357	.22
EBL	2	3200	422	.13*	339	.11*
EBT	0	0	0		0	
EBR	1	1600	33	.02	13	.01
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				**.48**		**.59**

86. Rice & Channel Islands

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	82	.05*	350	.22*
NBT	2	3200	561	.18	944	.29
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	656	.21*	857	.27*
SBR	d	1600	169	.11	677	.42
EBL	2	3200	467	.15*	174	.05*
EBT	0	0	0		0	
EBR	1	1600	123	.08	22	.01
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					SBR	.11*
TOTAL CAPACITY UTILIZATION				**.41**		**.65**

87. SR-1/Rice NB & Pleasant Vly

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	96	.03*	402	.13*
NBT	1	1600	4	.02	10	.02
NBR	0	0	22		15	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	341	.21*	209	.13*
EBT	2	3200	982	.31	630	.20
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	579	.21*	1336	.47*
WBR	0	0	82		182	
TOTAL CAPACITY UTILIZATION				**.45**		**.73**

88. Oxnard & Pleasant Valley

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	164	.10*	439	.27*
NBT	2	3200	1	.00	5	.00
NBR	1	1600	80	.05	69	.04
SBL	1	1600	299	.19	161	.10
SBT	2	3200	333	.10*	148	.05*
SBR	1	1600	81	.05	110	.07
EBL	1	1600	104	.07	68	.04*
EBT	2	3200	1055	.33*	516	.16
EBR	1	1600	128	.08	561	.35
WBL	1	1600	16	.01*	11	.01
WBT	2	3200	521	.16	1076	.34*
WBR	f		152		697	
Right Turn Adjustment			NBR	.03*		
TOTAL CAPACITY UTILIZATION				**.57**		**.70**

89. Rice & Hueneme

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	45	.03*	20	.01*
SBT	0	0	0		0	
SBR	f		112		140	
EBL	2	3200	111	.03	147	.05*
EBT	1	1600	440	.28*	445	.28
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	354	.22	698	.44*
WBR	f		29		105	

TOTAL CAPACITY UTILIZATION .31 .50

92. Del Norte & Camino Del Sol

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03*	175	.11*
NBT	2	3200	323	.10	497	.16
NBR	d	1600	10	.01	5	.00
SBL	1	1600	48	.03	40	.03
SBT	2	3200	419	.13*	326	.10*
SBR	1	1600	159	.10	187	.12
EBL	1	1600	160	.10*	247	.15*
EBT	1	1600	15	.01	10	.01
EBR	1	1600	102	.06	46	.03
WBL	0	0	10		22	
WBT	1	1600	7	.02*	21	.04*
WBR	0	0	8		17	

TOTAL CAPACITY UTILIZATION .28 .40

94. Del Norte & 5th St

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	72	.05*	54	.03*
SBT	0	0	0		0	
SBR	1	1600	170	.11	178	.11
EBL	1	1600	204	.13	111	.07*
EBT	1	1600	653	.41*	378	.24
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	232	.17	707	.49*
WBR	0	0	35		80	
Right Turn Adjustment					SBR	.03*

TOTAL CAPACITY UTILIZATION .46 .62

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				1.00		1.00	0.97	0.95			0.86	1.00
Frt				1.00		0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770		1583	3433	3539			6408	1583
Flt Permitted				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770		1583	3433	3539			6408	1583
Volume (vph)	0	0	0	131	0	149	623	123	0	0	128	450
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	0	0	0	160	0	182	760	150	0	0	156	549
RTOR Reduction (vph)	0	0	0	0	0	154	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	160	0	28	760	150	0	0	156	549
Turn Type				custom		custom	Prot					Free
Protected Phases							5	2			6	
Permitted Phases				8		8						Free
Actuated Green, G (s)				13.0		13.0	32.0	69.0			33.0	90.0
Effective Green, g (s)				14.0		14.0	33.0	70.0			34.0	90.0
Actuated g/C Ratio				0.16		0.16	0.37	0.78			0.38	1.00
Clearance Time (s)				4.0		4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				275		246	1259	2753			2421	1583
v/s Ratio Prot							c0.22	0.04			0.02	
v/s Ratio Perm				c0.09		0.02						c0.35
v/c Ratio				0.58		0.12	0.60	0.05			0.06	0.35
Uniform Delay, d1				35.3		32.7	23.2	2.3			17.9	0.0
Progression Factor				1.00		1.00	0.88	0.85			1.00	1.00
Incremental Delay, d2				3.1		0.2	0.8	0.0			0.1	0.6
Delay (s)				38.4		32.9	21.3	2.0			17.9	0.6
Level of Service				D		C	C	A			B	A
Approach Delay (s)		0.0			35.5			18.1			4.4	
Approach LOS		A			D			B			A	

Intersection Summary

HCM Average Control Delay	16.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	34.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97		1.00					0.86	1.00	0.97	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433		1583					6408	1583	3433	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433		1583					6408	1583	3433	3539	
Volume (vph)	62	0	553	0	0	0	0	701	129	103	154	0
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	74	0	658	0	0	0	0	835	154	123	183	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	74	0	658	0	0	0	0	835	154	123	183	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	6.0		90.0					64.5	90.0	7.5	76.0	
Effective Green, g (s)	7.0		90.0					65.5	90.0	8.5	77.0	
Actuated g/C Ratio	0.08		1.00					0.73	1.00	0.09	0.86	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	267		1583					4664	1583	324	3028	
v/s Ratio Prot								0.13		0.04	0.05	
v/s Ratio Perm	0.02		c0.42						0.10			
v/c Ratio	0.28		0.42					0.18	0.10	0.38	0.06	
Uniform Delay, d1	39.1		0.0					3.8	0.0	38.3	1.0	
Progression Factor	1.00		1.00					1.00	1.00	0.52	1.17	
Incremental Delay, d2	0.6		0.8					0.1	0.1	0.7	0.0	
Delay (s)	39.7		0.8					3.9	0.1	20.8	1.2	
Level of Service	D		A					A	A	C	A	
Approach Delay (s)		4.7			0.0			3.3			9.1	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	4.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	34.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97	0.95	0.88	0.97	0.91		0.86	0.86	1.00	0.94	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	2787	3433	4977		1522	4806	1583	4990	3519	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	2787	3433	4977		1522	4806	1583	4990	3519	
Volume (vph)	83	560	780	98	592	98	259	1162	175	594	441	17
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	91	615	857	108	651	108	285	1277	192	653	485	19
RTOR Reduction (vph)	0	0	521	0	28	0	0	0	91	0	3	0
Lane Group Flow (vph)	91	615	336	108	731	0	285	1277	101	653	501	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			
Actuated Green, G (s)	3.1	19.2	19.2	3.1	19.2		23.9	23.9	23.9	15.0	15.0	
Effective Green, g (s)	4.1	20.2	20.2	4.1	20.2		24.9	24.9	24.9	16.0	16.0	
Actuated g/C Ratio	0.05	0.26	0.26	0.05	0.26		0.32	0.32	0.32	0.21	0.21	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	182	926	729	182	1302		491	1550	511	1034	729	
v/s Ratio Prot	0.03	c0.17		c0.03	0.15		0.19	c0.27		0.13	c0.14	
v/s Ratio Perm			0.12						0.06			
v/c Ratio	0.50	0.66	0.46	0.59	0.56		0.58	0.82	0.20	0.63	0.69	
Uniform Delay, d1	35.6	25.5	23.9	35.7	24.7		21.8	24.1	18.9	27.9	28.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.2	3.8	2.1	5.1	1.8		1.7	3.7	0.2	1.3	2.7	
Delay (s)	37.7	29.2	26.0	40.8	26.4		23.5	27.8	19.1	29.2	31.0	
Level of Service	D	C	C	D	C		C	C	B	C	C	
Approach Delay (s)		28.0			28.2			26.2			30.0	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	27.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	77.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Volume (vph)	223	927	59	268	733	353	93	734	378	295	958	61
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	235	976	62	282	772	372	98	773	398	311	1008	64
RTOR Reduction (vph)	0	0	42	0	0	150	0	0	182	0	0	40
Lane Group Flow (vph)	235	976	20	282	772	222	98	773	216	311	1008	24
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	9.5	27.7	27.7	9.7	27.9	27.9	3.1	23.9	23.9	10.6	31.4	31.4
Effective Green, g (s)	10.5	28.7	28.7	10.7	28.9	28.9	4.1	24.9	24.9	11.6	32.4	32.4
Actuated g/C Ratio	0.12	0.33	0.33	0.12	0.33	0.33	0.05	0.28	0.28	0.13	0.37	0.37
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	410	1156	517	418	1672	520	160	1440	448	453	1874	583
v/s Ratio Prot	0.07	c0.28		c0.08	0.15		0.03	0.15		c0.09	c0.20	
v/s Ratio Perm			0.01			0.14			0.14			0.01
v/c Ratio	0.57	0.84	0.04	0.67	0.46	0.43	0.61	0.54	0.48	0.69	0.54	0.04
Uniform Delay, d1	36.6	27.5	20.2	36.9	23.3	23.0	41.1	26.6	26.1	36.4	21.9	17.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.9	5.8	0.0	4.3	0.2	0.6	6.8	1.4	3.7	4.3	1.1	0.1
Delay (s)	38.5	33.3	20.2	41.2	23.5	23.6	47.9	28.1	29.8	40.7	23.0	17.9
Level of Service	D	C	C	D	C	C	D	C	C	D	C	B
Approach Delay (s)		33.6			27.1			30.1			26.7	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	29.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	87.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3528		1770	1863	1583	1770	3506		1770	3520	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3528		1770	1863	1583	1770	3506		1770	3520	
Volume (vph)	29	350	8	35	139	55	23	844	57	124	877	32
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	34	412	9	41	164	65	27	993	67	146	1032	38
RTOR Reduction (vph)	0	2	0	0	0	53	0	6	0	0	3	0
Lane Group Flow (vph)	34	419	0	41	164	12	27	1054	0	146	1067	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	2.2	13.1		2.2	13.1	13.1	1.4	37.0		8.0	43.6	
Effective Green, g (s)	3.2	14.1		3.2	14.1	14.1	2.4	38.0		9.0	44.6	
Actuated g/C Ratio	0.04	0.18		0.04	0.18	0.18	0.03	0.50		0.12	0.58	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	74	652		74	344	293	56	1746		209	2058	
v/s Ratio Prot	0.02	c0.12		c0.02	0.09		0.02	c0.30		c0.08	0.30	
v/s Ratio Perm						0.01						
v/c Ratio	0.46	0.64		0.55	0.48	0.04	0.48	0.60		0.70	0.52	
Uniform Delay, d1	35.7	28.8		35.9	27.8	25.5	36.3	13.7		32.3	9.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.5	2.2		8.7	1.0	0.1	6.4	1.6		9.8	0.9	
Delay (s)	40.2	31.0		44.5	28.8	25.6	42.7	15.3		42.1	10.4	
Level of Service	D	C		D	C	C	D	B		D	B	
Approach Delay (s)		31.6			30.4			16.0			14.2	
Approach LOS		C			C			B			B	

Intersection Summary

HCM Average Control Delay	18.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	76.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Util. Factor	1.00	1.00	1.00			1.00	0.91		1.00	0.95		
Frt	1.00	1.00	0.85			1.00	0.85		1.00	0.86		
Flt Protected	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1583			1770	4322		1770	3049		
Flt Permitted	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1863	1583			1770	4322		1770	3049		
Volume (vph)	24	193	495	82	17	142	0	96	152	54	522	129
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	28	227	582	96	20	167	0	113	179	64	614	152
RTOR Reduction (vph)	0	0	4	0	0	0	100	0	0	13	0	0
Lane Group Flow (vph)	28	227	674	0	0	187	13	0	179	817	0	0
Turn Type	Split		Perm		Split	Split			Split			
Protected Phases	4	4			8	8	8		2	2		
Permitted Phases			4									
Actuated Green, G (s)	44.0	44.0	44.0			16.0	16.0		31.0	31.0		
Effective Green, g (s)	45.0	45.0	45.0			17.0	17.0		32.0	32.0		
Actuated g/C Ratio	0.30	0.30	0.30			0.11	0.11		0.21	0.21		
Clearance Time (s)	4.0	4.0	4.0			4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	531	559	475			201	490		378	650		
v/s Ratio Prot	0.02	0.12				c0.11	0.00		0.10	c0.27		
v/s Ratio Perm			c0.43									
v/c Ratio	0.05	0.41	1.42			0.93	0.03		0.47	2.19dr		
Uniform Delay, d1	37.3	41.8	52.5			65.9	59.1		51.6	59.0		
Progression Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.0	0.5	200.4			44.1	0.0		0.9	128.1		
Delay (s)	37.4	42.3	252.9			110.0	59.2		52.6	187.1		
Level of Service	D	D	F			F	E		D	F		
Approach Delay (s)		195.2					90.9			163.3		
Approach LOS		F					F			F		

Intersection Summary

HCM Average Control Delay	145.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	93.8%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

Movement	SBL2	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	
Lane Util. Factor		0.86	0.86		1.00	1.00	0.88	
Frt		1.00	0.99		1.00	1.00	0.85	
Flt Protected		0.95	0.98		0.95	0.95	1.00	
Satd. Flow (prot)		1522	4649		1770	1770	2787	
Flt Permitted		0.95	0.98		0.95	0.95	1.00	
Satd. Flow (perm)		1522	4649		1770	1770	2787	
Volume (vph)	42	482	281	43	12	168	196	11
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	49	567	331	51	14	198	231	13
RTOR Reduction (vph)	0	0	6	0	0	0	3	0
Lane Group Flow (vph)	0	308	684	0	14	198	241	0
Turn Type	Split		Prot		Prot	Prot		
Protected Phases	6	6	6		1	1		
Permitted Phases							1	
Actuated Green, G (s)		23.0	23.0		16.0	16.0	16.0	
Effective Green, g (s)		24.0	24.0		17.0	17.0	17.0	
Actuated g/C Ratio		0.16	0.16		0.11	0.11	0.11	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		244	744		201	201	316	
v/s Ratio Prot		c0.20	0.15		0.01	c0.11		
v/s Ratio Perm							0.09	
v/c Ratio		1.26	1.12dl		0.07	0.99	0.76	
Uniform Delay, d1		63.0	62.0		59.4	66.4	64.6	
Progression Factor		1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2		146.6	16.3		0.1	58.7	10.5	
Delay (s)		209.6	78.4		59.6	125.1	75.0	
Level of Service		F	E		E	F	E	
Approach Delay (s)			118.9			96.3		
Approach LOS			F			F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	462	0	211	0	1127	319	0	1166	306
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	513	0	234	0	1252	354	0	1296	340
RTOR Reduction (vph)	0	0	0	0	0	47	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	513	0	187	0	1252	354	0	1296	340
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				18.9		18.9		63.1	90.0		63.1	90.0
Effective Green, g (s)				19.9		19.9		64.1	90.0		64.1	90.0
Actuated g/C Ratio				0.22		0.22		0.71	1.00		0.71	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				759		350		3622	1583		2521	1583
v/s Ratio Prot				c0.15		0.12		0.25			c0.37	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.68		0.54		0.35	0.22		0.51	0.21
Uniform Delay, d1				32.1		31.0		4.9	0.0		5.9	0.0
Progression Factor				1.00		1.00		0.66	1.00		1.00	1.00
Incremental Delay, d2				2.4		1.6		0.2	0.3		0.8	0.3
Delay (s)				34.5		32.5		3.5	0.3		6.6	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			33.9			2.8			5.3	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM Average Control Delay	9.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	52.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.87						1.00	0.85		0.97	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1534						3539	1583		4915	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1534						3539	1583		4915	
Volume (vph)	250	0	171	0	0	0	0	1187	860	0	1270	366
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	287	0	197	0	0	0	0	1364	989	0	1460	421
RTOR Reduction (vph)	0	31	0	0	0	0	0	0	0	0	39	0
Lane Group Flow (vph)	250	203	0	0	0	0	0	1364	989	0	1842	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.9	17.9						64.1	90.0		64.1	
Effective Green, g (s)	18.9	18.9						65.1	90.0		65.1	
Actuated g/C Ratio	0.21	0.21						0.72	1.00		0.72	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	353	322						2560	1583		3555	
v/s Ratio Prot	0.15	0.13						0.39			0.37	
v/s Ratio Perm									c0.62			
v/c Ratio	0.71	0.63						0.53	0.62		0.52	
Uniform Delay, d1	33.0	32.4						5.6	0.0		5.5	
Progression Factor	1.00	1.00						1.00	1.00		0.61	
Incremental Delay, d2	6.4	4.0						0.8	1.9		0.5	
Delay (s)	39.4	36.4						6.4	1.9		3.8	
Level of Service	D	D						A	A		A	
Approach Delay (s)		37.9			0.0			4.5			3.8	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	51.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0			3.0	3.0		3.0	3.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.94			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.97			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1681	1610			5085	1583		5085	1583
Flt Permitted				0.95	0.97			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1681	1610			5085	1583		5085	1583
Volume (vph)	0	0	0	433	0	111	0	1031	702	0	966	194
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.92	0.84	0.92	0.84	0.84	0.92	0.84	0.84
Adj. Flow (vph)	0	0	0	515	0	132	0	1227	836	0	1150	231
RTOR Reduction (vph)	0	0	0	0	23	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	338	286	0	0	1227	836	0	1150	231
Turn Type				Perm					Free			Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				22.1	22.1			59.9	90.0		59.9	90.0
Effective Green, g (s)				23.1	23.1			60.9	90.0		60.9	90.0
Actuated g/C Ratio				0.26	0.26			0.68	1.00		0.68	1.00
Clearance Time (s)				4.0	4.0			4.0			4.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				431	413			3441	1583		3441	1583
v/s Ratio Prot								0.24			0.23	
v/s Ratio Perm				c0.20	0.18				c0.53			0.15
v/c Ratio				0.78	0.69			0.36	0.53		0.33	0.15
Uniform Delay, d1				31.1	30.2			6.2	0.0		6.1	0.0
Progression Factor				1.00	1.00			0.98	1.00		1.00	1.00
Incremental Delay, d2				9.1	5.0			0.2	1.1		0.3	0.2
Delay (s)				40.2	35.2			6.3	1.1		6.3	0.2
Level of Service				D	D			A	A		A	A
Approach Delay (s)		0.0			37.8			4.2			5.3	
Approach LOS		A			D			A			A	

Intersection Summary

HCM Average Control Delay	9.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.85	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1441	1504					5085	1583		5085	1583
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1441	1504					5085	1583		5085	1583
Volume (vph)	220	0	660	0	0	0	0	1559	529	0	1265	110
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	250	0	750	0	0	0	0	1772	601	0	1438	125
RTOR Reduction (vph)	0	11	11	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	250	364	364	0	0	0	0	1772	601	0	1438	125
Turn Type	Split		Perm						Free			Free
Protected Phases	4	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	27.9	27.9	27.9					54.1	90.0		54.1	90.0
Effective Green, g (s)	28.9	28.9	28.9					55.1	90.0		55.1	90.0
Actuated g/C Ratio	0.32	0.32	0.32					0.61	1.00		0.61	1.00
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)	540	463	483					3113	1583		3113	1583
v/s Ratio Prot	0.15	c0.25						c0.35			0.28	
v/s Ratio Perm			0.24						0.38			0.08
v/c Ratio	0.46	0.79	0.75					0.57	0.38		0.46	0.08
Uniform Delay, d1	24.4	27.7	27.4					10.4	0.0		9.4	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		0.73	1.00
Incremental Delay, d2	0.6	8.6	6.6					0.8	0.7		0.4	0.1
Delay (s)	25.0	36.3	33.9					11.1	0.7		7.4	0.1
Level of Service	C	D	C					B	A		A	A
Approach Delay (s)		32.6			0.0			8.5			6.8	
Approach LOS		C			A			A			A	

Intersection Summary

HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3539	1583		3539	1583	1770	3539	1583	3433	3539	1583
Flt Permitted		1.00	1.00		0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		3539	1583		3376	1583	1770	3539	1583	3433	3539	1583
Volume (vph)	0	307	204	1	250	74	150	771	33	35	599	28
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	334	222	1	272	80	163	838	36	38	651	30
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	14	0	0	0
Lane Group Flow (vph)	0	334	222	0	273	80	163	838	22	38	651	30
Turn Type			Free	Perm		Free	Prot		Perm	Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free	8		Free			2			Free
Actuated Green, G (s)		11.4	68.3		11.4	68.3	9.7	41.2	41.2	3.7	35.2	68.3
Effective Green, g (s)		12.4	68.3		12.4	68.3	10.7	42.2	42.2	4.7	36.2	68.3
Actuated g/C Ratio		0.18	1.00		0.18	1.00	0.16	0.62	0.62	0.07	0.53	1.00
Clearance Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		643	1583		613	1583	277	2187	978	236	1876	1583
v/s Ratio Prot		c0.09					c0.09	c0.24		0.01	0.18	
v/s Ratio Perm			0.14		0.08	0.05			0.01			0.02
v/c Ratio		0.52	0.14		0.45	0.05	0.59	0.38	0.02	0.16	0.35	0.02
Uniform Delay, d1		25.3	0.0		24.9	0.0	26.8	6.5	5.1	29.9	9.2	0.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.7	0.2		0.5	0.1	3.2	0.5	0.0	0.3	0.5	0.0
Delay (s)		26.0	0.2		25.4	0.1	29.9	7.0	5.1	30.3	9.8	0.0
Level of Service		C	A		C	A	C	A	A	C	A	A
Approach Delay (s)		15.7			19.7			10.6			10.4	
Approach LOS		B			B			B			B	

Intersection Summary

HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	68.3	Sum of lost time (s)	6.0
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor		1.00	1.00					0.95	1.00	1.00	0.95	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1776	1583					3539	1583	1770	3539	
Flt Permitted		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1776	1583					3539	1583	1770	3539	
Volume (vph)	88	2	701	0	0	0	0	872	583	136	1166	0
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	97	2	770	0	0	0	0	958	641	149	1281	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	247	0	0	0
Lane Group Flow (vph)	0	99	770	0	0	0	0	958	394	149	1281	0
Turn Type	Perm		Free						Perm	Prot		
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Actuated Green, G (s)		8.7	82.3					49.6	49.6	12.0	65.6	
Effective Green, g (s)		9.7	82.3					50.6	50.6	13.0	66.6	
Actuated g/C Ratio		0.12	1.00					0.61	0.61	0.16	0.81	
Clearance Time (s)		4.0						4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0						3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		209	1583					2176	973	280	2864	
v/s Ratio Prot								0.27		0.08	0.36	
v/s Ratio Perm		0.06	c0.49						0.25			
v/c Ratio		0.47	0.49					0.44	0.41	0.53	0.45	
Uniform Delay, d1		33.9	0.0					8.4	8.1	31.9	2.3	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.7	1.1					0.6	1.3	1.9	0.5	
Delay (s)		35.6	1.1					9.0	9.4	33.8	2.9	
Level of Service		D	A					A	A	C	A	
Approach Delay (s)		5.0			0.0			9.2			6.1	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	7.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	82.3	Sum of lost time (s)	0.0
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	3.0				
Lane Util. Factor	1.00	0.95			0.95		0.97	1.00				
Frt	1.00	1.00			0.98		1.00	0.85				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1770	3539			3473		3433	1583				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	1770	3539			3473		3433	1583				
Volume (vph)	341	982	0	0	579	82	96	0	22	0	0	0
Peak-hour factor, PHF	0.88	0.88	0.92	0.92	0.88	0.88	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	388	1116	0	0	658	93	109	0	25	0	0	0
RTOR Reduction (vph)	0	0	0	0	12	0	0	21	0	0	0	0
Lane Group Flow (vph)	388	1116	0	0	739	0	109	4	0	0	0	0
Turn Type	Prot						Perm					
Protected Phases	7	4			8			2				
Permitted Phases							2					
Actuated Green, G (s)	16.9	38.6			17.7		7.5	7.5				
Effective Green, g (s)	17.9	39.6			18.7		8.5	8.5				
Actuated g/C Ratio	0.33	0.73			0.35		0.16	0.16				
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	586	2590			1200		539	249				
v/s Ratio Prot	c0.22	0.32			c0.21			0.00				
v/s Ratio Perm							c0.03					
v/c Ratio	0.66	0.43			0.62		0.20	0.02				
Uniform Delay, d1	15.5	2.8			14.7		19.8	19.3				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	2.8	0.1			0.9		0.2	0.0				
Delay (s)	18.3	3.0			15.7		20.0	19.3				
Level of Service	B	A			B		C	B				
Approach Delay (s)		6.9			15.7			19.9			0.0	
Approach LOS		A			B			B			A	

Intersection Summary

HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	54.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	104	1055	128	16	521	152	164	1	80	299	333	81
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	113	1147	139	17	566	165	178	1	87	325	362	88
RTOR Reduction (vph)	0	0	83	0	0	0	0	0	73	0	0	66
Lane Group Flow (vph)	113	1147	56	17	566	165	178	1	14	325	362	22
Turn Type	Prot		Perm	Prot		Free	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free			2			6
Actuated Green, G (s)	6.9	26.1	26.1	0.6	19.8	67.4	9.0	10.0	10.0	14.7	15.7	15.7
Effective Green, g (s)	7.9	27.1	27.1	1.6	20.8	67.4	10.0	11.0	11.0	15.7	16.7	16.7
Actuated g/C Ratio	0.12	0.40	0.40	0.02	0.31	1.00	0.15	0.16	0.16	0.23	0.25	0.25
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	207	1423	636	42	1092	1583	263	578	258	412	877	392
v/s Ratio Prot	c0.06	c0.32		0.01	0.16		0.10	0.00		c0.18	c0.10	
v/s Ratio Perm			0.04			0.10			0.01			0.01
v/c Ratio	0.55	0.81	0.09	0.40	0.52	0.10	0.68	0.00	0.06	0.79	0.41	0.06
Uniform Delay, d1	28.1	17.8	12.5	32.4	19.2	0.0	27.2	23.6	23.8	24.3	21.2	19.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.9	3.4	0.1	6.3	0.4	0.1	6.7	0.0	0.1	9.7	0.3	0.1
Delay (s)	31.0	21.3	12.5	38.7	19.6	0.1	33.9	23.6	23.9	34.0	21.6	19.4
Level of Service	C	C	B	D	B	A	C	C	C	C	C	B
Approach Delay (s)		21.2			15.7			30.6			26.5	
Approach LOS		C			B			C			C	

Intersection Summary

HCM Average Control Delay	22.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	67.4	Sum of lost time (s)	6.0
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	560	2	24	80	62	0	0	89	27
Peak Hour Factor	0.93	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.93	0.93
Hourly flow rate (vph)	0	0	0	602	2	26	86	67	0	0	96	29

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	630	153	125
Volume Left (vph)	602	86	0
Volume Right (vph)	26	0	29
Hadj (s)	0.20	0.15	-0.11
Departure Headway (s)	4.9	6.0	5.8
Degree Utilization, x	0.86	0.25	0.20
Capacity (veh/h)	717	575	586
Control Delay (s)	30.8	11.0	10.2
Approach Delay (s)	30.8	11.0	10.2
Approach LOS	D	B	B

Intersection Summary			
Delay	24.7		
HCM Level of Service	C		
Intersection Capacity Utilization	53.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	22	1	199	0	0	0	0	115	297	52	606	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.95	0.95	0.95	0.87	0.87	0.87	0.87	0.95
Hourly flow rate (vph)	25	1	229	0	0	0	0	132	341	60	697	0

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total (vph)	255	474	756
Volume Left (vph)	25	0	60
Volume Right (vph)	229	341	0
Hadj (s)	-0.48	-0.40	0.05
Departure Headway (s)	6.1	5.3	5.5
Degree Utilization, x	0.44	0.70	1.16
Capacity (veh/h)	564	662	650
Control Delay (s)	13.8	19.5	108.4
Approach Delay (s)	13.8	19.5	108.4
Approach LOS	B	C	F

Intersection Summary			
Delay	63.8		
HCM Level of Service	F		
Intersection Capacity Utilization	82.6%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				1.00		1.00	0.97	0.95			0.86	1.00
Frt				1.00		0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770		1583	3433	3539			6408	1583
Flt Permitted				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770		1583	3433	3539			6408	1583
Volume (vph)	0	0	0	373	0	195	719	91	0	0	259	272
Peak-hour factor, PHF	0.82	0.82	0.82	0.96	0.82	0.96	0.96	0.96	0.82	0.82	0.96	0.96
Adj. Flow (vph)	0	0	0	389	0	203	749	95	0	0	270	283
RTOR Reduction (vph)	0	0	0	0	0	146	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	389	0	57	749	95	0	0	270	283
Turn Type				custom		custom	Prot					Free
Protected Phases							5	2			6	
Permitted Phases				8		8						Free
Actuated Green, G (s)				21.5		21.5	29.5	50.5			17.0	80.0
Effective Green, g (s)				22.5		22.5	30.5	51.5			18.0	80.0
Actuated g/C Ratio				0.28		0.28	0.38	0.64			0.22	1.00
Clearance Time (s)				4.0		4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				498		445	1309	2278			1442	1583
v/s Ratio Prot							c0.22	0.03			0.04	
v/s Ratio Perm				c0.22		0.04						c0.18
v/c Ratio				0.78		0.13	0.57	0.04			0.19	0.18
Uniform Delay, d1				26.5		21.4	19.6	5.2			25.1	0.0
Progression Factor				1.00		1.00	0.78	0.63			1.00	1.00
Incremental Delay, d2				7.8		0.1	1.8	0.0			0.3	0.2
Delay (s)				34.3		21.6	17.1	3.3			25.4	0.2
Level of Service				C		C	B	A			C	A
Approach Delay (s)		0.0			29.9			15.6			12.5	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	19.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97		1.00					0.86	1.00	0.97	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433		1583					6408	1583	3433	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433		1583					6408	1583	3433	3539	
Volume (vph)	39	0	1081	0	0	0	0	689	204	101	380	0
Peak-hour factor, PHF	0.91	0.84	0.91	0.84	0.84	0.84	0.84	0.91	0.91	0.91	0.91	0.84
Adj. Flow (vph)	43	0	1188	0	0	0	0	757	224	111	418	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	43	0	1188	0	0	0	0	757	224	111	418	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	2.8		80.0					53.2	80.0	12.0	69.2	
Effective Green, g (s)	3.8		80.0					54.2	80.0	13.0	70.2	
Actuated g/C Ratio	0.05		1.00					0.68	1.00	0.16	0.88	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	163		1583					4341	1583	558	3105	
v/s Ratio Prot								0.12		0.03	0.12	
v/s Ratio Perm	0.01		c0.75						0.14			
v/c Ratio	0.26		0.75					0.17	0.14	0.20	0.13	
Uniform Delay, d1	36.8		0.0					4.7	0.0	29.0	0.7	
Progression Factor	1.00		1.00					1.00	1.00	0.74	1.90	
Incremental Delay, d2	0.9		3.3					0.1	0.2	0.2	0.1	
Delay (s)	37.6		3.3					4.8	0.2	21.7	1.4	
Level of Service	D		A					A	A	C	A	
Approach Delay (s)		4.5			0.0			3.8			5.6	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	4.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97	0.95	0.88	0.97	0.91		0.86	0.86	1.00	0.94	0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	2787	3433	4950		1522	4793	1583	4990	3529	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	2787	3433	4950		1522	4793	1583	4990	3529	
Volume (vph)	295	694	779	181	819	177	233	595	140	901	1033	20
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	307	723	811	189	853	184	243	620	146	939	1076	21
RTOR Reduction (vph)	0	0	591	0	38	0	0	0	119	0	1	0
Lane Group Flow (vph)	307	723	220	189	999	0	207	656	27	939	1096	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			
Actuated Green, G (s)	8.4	23.4	23.4	6.0	21.0		15.5	15.5	15.5	29.1	29.1	
Effective Green, g (s)	9.4	24.4	24.4	7.0	22.0		16.5	16.5	16.5	30.1	30.1	
Actuated g/C Ratio	0.10	0.27	0.27	0.08	0.24		0.18	0.18	0.18	0.33	0.33	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	359	959	756	267	1210		279	879	290	1669	1180	
v/s Ratio Prot	c0.09	c0.20		0.06	c0.20		0.14	c0.14		0.19	c0.31	
v/s Ratio Perm			0.08						0.02			
v/c Ratio	0.86	0.75	0.29	0.71	0.83		0.74	0.75	0.09	0.56	0.93	
Uniform Delay, d1	39.6	30.0	26.0	40.5	32.2		34.7	34.8	30.5	24.6	28.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	0.74	0.77	
Incremental Delay, d2	17.7	5.5	1.0	8.3	6.5		10.2	3.5	0.1	0.4	11.1	
Delay (s)	57.3	35.5	26.9	48.8	38.7		44.9	38.3	30.7	18.6	33.4	
Level of Service	E	D	C	D	D		D	D	C	B	C	
Approach Delay (s)		35.4			40.3			38.5			26.5	
Approach LOS		D			D			D			C	

Intersection Summary

HCM Average Control Delay	33.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Volume (vph)	242	977	121	392	1154	368	180	864	305	405	1287	112
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	252	1018	126	408	1202	383	188	900	318	422	1341	117
RTOR Reduction (vph)	0	0	86	0	0	158	0	0	205	0	0	80
Lane Group Flow (vph)	252	1018	40	408	1202	225	188	900	113	422	1341	37
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.7	22.9	22.9	9.0	23.2	23.2	4.0	17.0	17.0	10.0	23.0	23.0
Effective Green, g (s)	9.7	23.9	23.9	10.0	24.2	24.2	5.0	18.0	18.0	11.0	24.0	24.0
Actuated g/C Ratio	0.13	0.32	0.32	0.13	0.32	0.32	0.07	0.24	0.24	0.15	0.32	0.32
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	445	1129	505	458	1643	511	229	1222	380	504	1629	507
v/s Ratio Prot	0.07	c0.29		c0.12	0.24		0.05	0.18		c0.12	c0.26	
v/s Ratio Perm			0.03			0.14			0.07			0.02
v/c Ratio	0.57	0.90	0.08	0.89	0.73	0.44	0.82	0.74	0.30	0.84	0.82	0.07
Uniform Delay, d1	30.6	24.4	17.8	31.9	22.5	20.0	34.5	26.3	23.3	31.1	23.5	17.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.7	10.0	0.1	19.0	1.7	0.6	20.5	4.0	2.0	11.6	4.8	0.3
Delay (s)	32.3	34.4	17.9	51.0	24.2	20.6	55.0	30.2	25.3	42.6	28.3	18.0
Level of Service	C	C	B	D	C	C	D	C	C	D	C	B
Approach Delay (s)		32.5			29.0			32.4			30.9	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	31.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	74.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3446		1770	1863	1583	1770	3511		1770	3516	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3446		1770	1863	1583	1770	3511		1770	3516	
Volume (vph)	78	254	54	88	317	118	48	1102	61	128	1144	51
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	80	262	56	91	327	122	49	1136	63	132	1179	53
RTOR Reduction (vph)	0	24	0	0	0	96	0	5	0	0	4	0
Lane Group Flow (vph)	80	294	0	91	327	26	49	1194	0	132	1228	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	3.8	14.6		3.8	14.6	14.6	2.3	33.3		5.3	36.3	
Effective Green, g (s)	4.8	15.6		4.8	15.6	15.6	3.3	34.3		6.3	37.3	
Actuated g/C Ratio	0.07	0.21		0.07	0.21	0.21	0.05	0.47		0.09	0.51	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	116	736		116	398	338	80	1650		153	1797	
v/s Ratio Prot	0.05	0.09		c0.05	c0.18		0.03	0.34		c0.07	c0.35	
v/s Ratio Perm						0.02						
v/c Ratio	0.69	0.40		0.78	0.82	0.08	0.61	0.72		0.86	0.68	
Uniform Delay, d1	33.4	24.7		33.6	27.4	22.9	34.2	15.5		32.9	13.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	15.7	0.4		28.5	12.8	0.1	13.1	2.8		36.2	2.1	
Delay (s)	49.1	25.0		62.1	40.2	23.0	47.3	18.3		69.1	15.5	
Level of Service	D	C		E	D	C	D	B		E	B	
Approach Delay (s)		29.9			40.0			19.5			20.7	
Approach LOS		C			D			B			C	

Intersection Summary

HCM Average Control Delay	24.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	73.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Util. Factor	1.00	1.00	1.00			1.00	0.91		1.00	0.95		
Frt	1.00	1.00	0.85			1.00	0.85		1.00	0.86		
Flt Protected	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1583			1770	4326		1770	3033		
Flt Permitted	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1863	1583			1770	4326		1770	3033		
Volume (vph)	57	159	264	80	49	486	1	221	113	35	567	152
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	58	162	269	82	50	496	1	226	115	36	579	155
RTOR Reduction (vph)	0	0	8	0	0	0	180	0	0	15	0	0
Lane Group Flow (vph)	58	162	343	0	0	546	47	0	115	755	0	0
Turn Type	Split		Perm		Split	Split			Split			
Protected Phases	4	4			8	8	8		2	2		
Permitted Phases			4									
Actuated Green, G (s)	23.0	23.0	23.0			30.0	30.0		28.0	28.0		
Effective Green, g (s)	24.0	24.0	24.0			31.0	31.0		29.0	29.0		
Actuated g/C Ratio	0.16	0.16	0.16			0.21	0.21		0.19	0.19		
Clearance Time (s)	4.0	4.0	4.0			4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	283	298	253			366	894		342	586		
v/s Ratio Prot	0.03	0.09				c0.31	0.01		0.06	c0.25		
v/s Ratio Perm			c0.22									
v/c Ratio	0.20	0.54	1.36			1.49	0.05		0.34	2.29dr		
Uniform Delay, d1	54.7	58.0	63.0			59.5	47.7		52.2	60.5		
Progression Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.4	2.0	184.4			235.3	0.0		0.6	142.6		
Delay (s)	55.1	60.0	247.4			294.8	47.7		52.8	203.1		
Level of Service	E	E	F			F	D		D	F		
Approach Delay (s)		174.7					222.3			183.6		
Approach LOS		F					F			F		

Intersection Summary

HCM Average Control Delay	178.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.38		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	118.2%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

Movement	SBL2	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	
Lane Util. Factor		0.86	0.86		1.00	1.00	0.88	
Frt		1.00	0.99		1.00	1.00	0.85	
Flt Protected		0.95	0.97		0.95	0.95	1.00	
Satd. Flow (prot)		1522	4656		1770	1770	2787	
Flt Permitted		0.95	0.97		0.95	0.95	1.00	
Satd. Flow (perm)		1522	4656		1770	1770	2787	
Volume (vph)	73	810	359	29	11	287	407	72
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	74	827	366	30	11	293	415	73
RTOR Reduction (vph)	0	0	2	0	0	0	9	0
Lane Group Flow (vph)	0	451	844	0	11	293	479	0
Turn Type	Split		Prot		Prot	Prot		
Protected Phases	6	6	6		1	1		
Permitted Phases							1	
Actuated Green, G (s)		29.0	29.0		20.0	20.0	20.0	
Effective Green, g (s)		30.0	30.0		21.0	21.0	21.0	
Actuated g/C Ratio		0.20	0.20		0.14	0.14	0.14	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		304	931		248	248	390	
v/s Ratio Prot		c0.30	0.18		0.01	0.17		
v/s Ratio Perm							c0.17	
v/c Ratio		1.48	1.33dl		0.04	1.18	1.23	
Uniform Delay, d1		60.0	58.6		55.8	64.5	64.5	
Progression Factor		1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2		234.5	12.2		0.1	115.2	123.8	
Delay (s)		294.5	70.8		55.9	179.7	188.3	
Level of Service		F	E		E	F	F	
Approach Delay (s)			148.6			183.3		
Approach LOS			F			F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	710	0	162	0	1200	261	0	1245	275
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	826	0	188	0	1395	303	0	1448	320
RTOR Reduction (vph)	0	0	0	0	0	25	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	826	0	163	0	1395	303	0	1448	320
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				27.2		27.2		54.8	90.0		54.8	90.0
Effective Green, g (s)				28.2		28.2		55.8	90.0		55.8	90.0
Actuated g/C Ratio				0.31		0.31		0.62	1.00		0.62	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1076		496		3153	1583		2194	1583
v/s Ratio Prot				c0.24		0.10		0.27			c0.41	
v/s Ratio Perm									0.19			0.20
v/c Ratio				0.77		0.33		0.44	0.19		0.66	0.20
Uniform Delay, d1				27.9		23.6		9.0	0.0		11.0	0.0
Progression Factor				1.00		1.00		0.59	1.00		1.00	1.00
Incremental Delay, d2				3.3		0.4		0.4	0.2		1.6	0.3
Delay (s)				31.3		24.0		5.6	0.2		12.6	0.3
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			29.9			4.7			10.4	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	61.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.90						1.00	0.85		0.99	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1561						3539	1583		5011	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1561						3539	1583		5011	
Volume (vph)	288	0	143	0	0	0	0	1260	701	0	1841	199
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	306	0	152	0	0	0	0	1340	746	0	1959	212
RTOR Reduction (vph)	0	8	0	0	0	0	0	0	0	0	9	0
Lane Group Flow (vph)	240	210	0	0	0	0	0	1340	746	0	2162	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.3	17.3						64.7	90.0		64.7	
Effective Green, g (s)	18.3	18.3						65.7	90.0		65.7	
Actuated g/C Ratio	0.20	0.20						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	342	317						2583	1583		3658	
v/s Ratio Prot	c0.14	0.13						0.38			c0.43	
v/s Ratio Perm									0.47			
v/c Ratio	0.70	0.66						0.52	0.47		0.59	
Uniform Delay, d1	33.3	33.0						5.3	0.0		5.8	
Progression Factor	1.00	1.00						0.78	1.00		0.71	
Incremental Delay, d2	6.4	5.1						0.7	0.9		0.5	
Delay (s)	39.7	38.1						4.8	0.9		4.6	
Level of Service	D	D						A	A		A	
Approach Delay (s)		39.0			0.0			3.4			4.6	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0			3.0	3.0		3.0	3.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.93			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1681	1599			5085	1583		5085	1583
Flt Permitted				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1681	1599			5085	1583		5085	1583
Volume (vph)	0	0	0	580	0	175	0	1504	843	0	1308	465
Peak-hour factor, PHF	0.92	0.92	0.92	0.85	0.92	0.85	0.92	0.85	0.85	0.92	0.85	0.85
Adj. Flow (vph)	0	0	0	682	0	206	0	1769	992	0	1539	547
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	468	416	0	0	1769	992	0	1539	547
Turn Type				Perm					Free			Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				30.0	30.0			52.0	90.0		52.0	90.0
Effective Green, g (s)				31.0	31.0			53.0	90.0		53.0	90.0
Actuated g/C Ratio				0.34	0.34			0.59	1.00		0.59	1.00
Clearance Time (s)				4.0	4.0			4.0			4.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				579	551			2995	1583		2995	1583
v/s Ratio Prot								0.35			0.30	
v/s Ratio Perm				c0.28	0.26				c0.63			0.35
v/c Ratio				0.81	0.76			0.59	0.63		0.51	0.35
Uniform Delay, d1				26.8	26.1			11.7	0.0		10.9	0.0
Progression Factor				1.00	1.00			1.04	1.00		1.00	1.00
Incremental Delay, d2				8.1	5.8			0.6	1.4		0.6	0.6
Delay (s)				34.9	32.0			12.8	1.4		11.5	0.6
Level of Service				C	C			B	A		B	A
Approach Delay (s)		0.0			33.5			8.7			8.7	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.85	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1442	1504					5085	1583		5085	1583
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1442	1504					5085	1583		5085	1583
Volume (vph)	392	0	910	0	0	0	0	1961	396	0	1811	142
Peak-hour factor, PHF	0.94	0.94	0.94	0.88	0.92	0.92	0.92	0.94	0.94	0.88	0.94	0.94
Adj. Flow (vph)	417	0	968	0	0	0	0	2086	421	0	1927	151
RTOR Reduction (vph)	0	3	3	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	414	484	481	0	0	0	0	2086	421	0	1927	151
Turn Type	Split		Perm						Free			Free
Protected Phases	4	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	34.4	34.4	34.4					47.6	90.0		47.6	90.0
Effective Green, g (s)	35.4	35.4	35.4					48.6	90.0		48.6	90.0
Actuated g/C Ratio	0.39	0.39	0.39					0.54	1.00		0.54	1.00
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)	661	567	592					2746	1583		2746	1583
v/s Ratio Prot	0.25	c0.34						c0.41			0.38	
v/s Ratio Perm			0.32						0.27			0.10
v/c Ratio	0.63	0.85	0.81					0.76	0.27		0.70	0.10
Uniform Delay, d1	22.0	24.9	24.3					16.1	0.0		15.3	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		0.71	1.00
Incremental Delay, d2	1.9	11.9	8.3					2.0	0.4		1.2	0.1
Delay (s)	23.8	36.8	32.7					18.2	0.4		12.2	0.1
Level of Service	C	D	C					B	A		B	A
Approach Delay (s)		31.5			0.0			15.2			11.3	
Approach LOS		C			A			B			B	

Intersection Summary

HCM Average Control Delay	17.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3539	1583		3539	1583	1770	3539	1583	3433	3539	1583
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		3539	1583		3539	1583	1770	3539	1583	3433	3539	1583
Volume (vph)	0	201	322	0	729	84	149	752	23	58	1025	48
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	218	350	0	792	91	162	817	25	63	1114	52
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	11	0	0	0
Lane Group Flow (vph)	0	218	350	0	792	91	162	817	14	63	1114	52
Turn Type			Free			Free	Prot		Perm	Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Actuated Green, G (s)		19.7	72.7		19.7	72.7	8.2	38.7	38.7	2.3	32.8	72.7
Effective Green, g (s)		20.7	72.7		20.7	72.7	9.2	39.7	39.7	3.3	33.8	72.7
Actuated g/C Ratio		0.28	1.00		0.28	1.00	0.13	0.55	0.55	0.05	0.46	1.00
Clearance Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1008	1583		1008	1583	224	1933	864	156	1645	1583
v/s Ratio Prot		0.06			c0.22		c0.09	0.23		0.02	c0.31	
v/s Ratio Perm			0.22			0.06			0.01			0.03
v/c Ratio		0.22	0.22		0.79	0.06	0.72	0.42	0.02	0.40	0.68	0.03
Uniform Delay, d1		19.8	0.0		24.0	0.0	30.5	9.7	7.6	33.7	15.2	0.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.1	0.3		4.1	0.1	11.0	0.7	0.0	1.7	2.3	0.0
Delay (s)		19.9	0.3		28.1	0.1	41.5	10.4	7.6	35.5	17.5	0.0
Level of Service		B	A		C	A	D	B	A	D	B	A
Approach Delay (s)		7.8			25.2			15.4			17.6	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	72.7	Sum of lost time (s)	9.0
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor		1.00	1.00					0.95	1.00	1.00	0.95	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1770	1583					3539	1583	1770	3539	
Flt Permitted		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1770	1583					3539	1583	1770	3539	
Volume (vph)	124	0	457	0	0	0	0	1387	608	225	1289	0
Peak-hour factor, PHF	0.91	0.96	0.96	0.25	0.91	0.91	0.91	0.96	0.96	0.96	0.96	0.91
Adj. Flow (vph)	136	0	476	0	0	0	0	1445	633	234	1343	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	275	0	0	0
Lane Group Flow (vph)	0	136	476	0	0	0	0	1445	358	234	1343	0
Turn Type	Perm		Free						Perm	Prot		
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Actuated Green, G (s)		11.7	86.4					47.9	47.9	14.8	66.7	
Effective Green, g (s)		12.7	86.4					48.9	48.9	15.8	67.7	
Actuated g/C Ratio		0.15	1.00					0.57	0.57	0.18	0.78	
Clearance Time (s)		4.0						4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0						3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		260	1583					2003	896	324	2773	
v/s Ratio Prot								c0.41		c0.13	0.38	
v/s Ratio Perm		0.08	0.30						0.23			
v/c Ratio		0.52	0.30					0.72	0.40	0.72	0.48	
Uniform Delay, d1		34.1	0.0					13.8	10.5	33.2	3.3	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.9	0.5					2.3	1.3	7.7	0.6	
Delay (s)		35.9	0.5					16.0	11.9	41.0	3.9	
Level of Service		D	A					B	B	D	A	
Approach Delay (s)		8.4			0.0			14.8			9.4	
Approach LOS		A			A			B			A	

Intersection Summary

HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	86.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	67.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	3.0				
Lane Util. Factor	1.00	0.95			0.95		0.97	1.00				
Frt	1.00	1.00			0.98		1.00	0.85				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1770	3539			3475		3433	1583				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	1770	3539			3475		3433	1583				
Volume (vph)	209	630	0	0	1336	182	402	0	15	0	0	0
Peak-hour factor, PHF	0.94	0.94	0.92	0.92	0.94	0.94	0.94	0.88	0.94	0.92	0.92	0.92
Adj. Flow (vph)	222	670	0	0	1421	194	428	0	16	0	0	0
RTOR Reduction (vph)	0	0	0	0	14	0	0	12	0	0	0	0
Lane Group Flow (vph)	222	670	0	0	1601	0	428	4	0	0	0	0
Turn Type	Prot						Perm					
Protected Phases	7	4			8			2				
Permitted Phases							2					
Actuated Green, G (s)	10.0	49.9			35.9		17.0	17.0				
Effective Green, g (s)	11.0	50.9			36.9		18.0	18.0				
Actuated g/C Ratio	0.15	0.68			0.49		0.24	0.24				
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	260	2405			1712		825	380				
v/s Ratio Prot	c0.13	0.19			c0.46			0.00				
v/s Ratio Perm							c0.12					
v/c Ratio	0.85	0.28			0.94		0.52	0.01				
Uniform Delay, d1	31.2	4.7			17.9		24.7	21.7				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	22.8	0.1			10.0		2.3	0.0				
Delay (s)	54.0	4.8			27.9		27.0	21.7				
Level of Service	D	A			C		C	C				
Approach Delay (s)		17.0			27.9			26.8			0.0	
Approach LOS		B			C			C			A	

Intersection Summary

HCM Average Control Delay	24.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	74.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	75.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	68	516	561	11	1076	697	439	5	69	161	148	110
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	74	561	610	12	1170	758	477	5	75	175	161	120
RTOR Reduction (vph)	0	0	355	0	0	0	0	0	56	0	0	106
Lane Group Flow (vph)	74	561	255	12	1170	758	477	5	19	175	161	14
Turn Type	Prot		Perm	Prot		Free	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free			2			6
Actuated Green, G (s)	3.1	33.8	33.8	0.8	31.5	83.1	23.6	20.3	20.3	12.2	8.9	8.9
Effective Green, g (s)	4.1	34.8	34.8	1.8	32.5	83.1	24.6	21.3	21.3	13.2	9.9	9.9
Actuated g/C Ratio	0.05	0.42	0.42	0.02	0.39	1.00	0.30	0.26	0.26	0.16	0.12	0.12
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	87	1482	663	38	1384	1583	524	907	406	281	422	189
v/s Ratio Prot	0.04	0.16		0.01	c0.33		c0.27	0.00		0.10	0.05	
v/s Ratio Perm			0.16			c0.48			0.01			0.01
v/c Ratio	0.85	0.38	0.39	0.32	0.85	0.48	0.91	0.01	0.05	0.62	0.38	0.08
Uniform Delay, d1	39.2	16.7	16.7	40.0	23.0	0.0	28.2	23.0	23.3	32.6	33.8	32.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	50.9	0.2	0.4	4.7	4.9	1.0	20.0	0.0	0.0	4.3	0.6	0.2
Delay (s)	90.1	16.8	17.1	44.8	28.0	1.0	48.2	23.0	23.3	36.9	34.4	32.7
Level of Service	F	B	B	D	C	A	D	C	C	D	C	C
Approach Delay (s)		21.3			17.5			44.6			34.9	
Approach LOS		C			B			D			C	

Intersection Summary

HCM Average Control Delay	24.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	83.1	Sum of lost time (s)	6.0
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	314	2	76	307	147	0	0	158	36
Peak Hour Factor	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Hourly flow rate (vph)	0	0	0	327	2	79	320	153	0	0	165	38

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	408	473	202
Volume Left (vph)	327	320	0
Volume Right (vph)	79	0	38
Hadj (s)	0.08	0.17	-0.08
Departure Headway (s)	5.9	5.7	6.0
Degree Utilization, x	0.67	0.75	0.33
Capacity (veh/h)	584	607	558
Control Delay (s)	20.0	24.2	11.9
Approach Delay (s)	20.0	24.2	11.9
Approach LOS	C	C	B

Intersection Summary			
Delay	20.3		
HCM Level of Service	C		
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	43	0	106	0	0	0	0	468	576	48	384	0
Peak Hour Factor	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Hourly flow rate (vph)	48	0	118	0	0	0	0	520	640	53	427	0

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total (vph)	166	1160	480
Volume Left (vph)	48	0	53
Volume Right (vph)	118	640	0
Hadj (s)	-0.34	-0.30	0.06
Departure Headway (s)	6.3	4.8	5.4
Degree Utilization, x	0.29	1.56	0.72
Capacity (veh/h)	543	748	651
Control Delay (s)	11.9	273.9	21.1
Approach Delay (s)	11.9	273.9	21.1
Approach LOS	B	F	C

Intersection Summary			
Delay	182.7		
HCM Level of Service	F		
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		

20. Ventura & Gonzales

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	153	.10	190	.12*
NBT	2	3200	517	.16*	659	.21
NBR	1	1600	344	.22	418	.26
SBL	1	1600	93	.06*	92	.06
SBT	3	4800	455	.11	936	.21*
SBR	0	0	60		71	
EBL	1	1600	123	.08	116	.07
EBT	2	3200	477	.15*	460	.14*
EBR	1	1600	47	.03	117	.07
WBL	2	3200	215	.07*	581	.18*
WBT	2	3200	353	.12	574	.21
WBR	0	0	31		89	
Right Turn Adjustment			NBR	.01*		
TOTAL CAPACITY UTILIZATION				**.45**		**.65**

24. Ventura & Wooley

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	73	.05	76	.05
NBT	2	3200	1044	.35*	1120	.37*
NBR	0	0	84		75	
SBL	1	1600	112	.07*	140	.09*
SBT	2	3200	832	.29	1158	.41
SBR	0	0	81		151	
EBL	1	1600	210	.13	146	.09*
EBT	2	3200	731	.23*	446	.14
EBR	1	1600	43	.03	89	.06
WBL	1	1600	92	.06*	236	.15
WBT	2	3200	349	.11	772	.24*
WBR	1	1600	181	.11	233	.15
TOTAL CAPACITY UTILIZATION				**.71**		**.79**

45. Oxnard & Vineyard

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	83	.03*	296	.09*
NBT	2	3200	562	.18	763	.24
NBR	2	3200	780	.24	780	.24
SBL	2	3200	104	.03	187	.06
SBT	3	4800	811	.19*	833	.21*
SBR	0	0	98		177	
EBL	1.5		260	.16	233	
EBT	2.5	6400	1173	.24*	597	.13*
EBR	1	1600	175	.11	140	.09
WBL	3	4800	594	.12	901	.19
WBT	2	3200	442	.14*	1036	.33*
WBR	0	0	17		22	
Note: Assumes E/W Split Phasing						
TOTAL CAPACITY UTILIZATION				**.60**		**.76**

46. Oxnard & Gonzales

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	93	.03	181	.06*
NBT	3	4800	734	.15*	873	.18
NBR	1	1600	405	.25	317	.20
SBL	2	3200	514	.16*	424	.13
SBT	3	4800	962	.20	1287	.27*
SBR	1	1600	61	.04	112	.07
EBL	2	3200	223	.07	242	.08
EBT	2	3200	1285	.40*	1090	.34*
EBR	1	1600	63	.04	121	.08
WBL	2	3200	275	.09*	404	.13*
WBT	3	4800	810	.17	1421	.30
WBR	1	1600	356	.22	444	.28
Right Turn Adjustment			NBR	.03*		
TOTAL CAPACITY UTILIZATION				**.83**		**.80**

49. Oxnard & 5th St

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	23	.01	48	.03
NBT	2	3200	857	.32*	1103	.37*
NBR	0	0	181		72	
SBL	1	1600	124	.08*	129	.08*
SBT	2	3200	877	.28	1150	.38
SBR	0	0	32		51	
EBL	1	1600	29	.02	78	.05*
EBT	2	3200	394	.13*	266	.10
EBR	0	0	8		54	
WBL	1	1600	36	.02*	95	.06
WBT	1	1600	147	.09	384	.24*
WBR	1	1600	56	.04	122	.08

TOTAL CAPACITY UTILIZATION .55 .74

61. Rose & Auto Center

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	102	.06	155	.10
NBT	2	3200	635	.20*	881	.28*
NBR	1	1600	444	.28	806	.50
SBL	1	1600	235	.15*	176	.11*
SBT	2	3200	854	.27	645	.21
SBR	0	0	25		12	
EBL	1	1600	43	.03	9	.01
EBT	1	1600	106	.07*	64	.04*
EBR	1	1600	100	.06	178	.11
WBL	2.5		179		930	
WBT	0.5	4800	27	.04*	100	.21*
WBR	1	1600	92	.06	248	.16
Right Turn Adjustment			NBR	.04*	NBR	.01*

Note: Assumes E/W Split Phasing
Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION .50 .65

65. Rose & Gonzales

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	266	.08	397	.12*
NBT	3	4800	1127	.23*	1204	.25
NBR	1	1600	275	.17	113	.07
SBL	2	3200	346	.11*	313	.10
SBT	3	4800	1033	.22	1477	.31*
SBR	1	1600	296	.19	616	.39
EBL	2	3200	707	.22	591	.18*
EBT	3	4800	1682	.35*	821	.17
EBR	1	1600	244	.15	197	.12
WBL	1	1600	81	.05*	176	.11
WBT	3	4800	470	.10	1587	.33*
WBR	1	1600	138	.09	355	.22

TOTAL CAPACITY UTILIZATION .74 .94

66. Rose & Camino del Sol

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	127	.08	97	.06
NBT	2	3200	1185	.37*	1268	.40*
NBR	1	1600	339	.21	176	.11
SBL	1	1600	201	.13*	139	.09*
SBT	2	3200	1197	.37	1249	.39
SBR	f		77		280	
EBL	1	1600	192	.12	133	.08*
EBT	2	3200	555	.22*	215	.10
EBR	0	0	133		95	
WBL	1	1600	169	.11*	309	.19
WBT	2	3200	184	.06	802	.25*
WBR	1	1600	93	.06	295	.18

TOTAL CAPACITY UTILIZATION .83 .82

68. Rose & 5th

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	17	.01	20	.01*
NBT	3	4800	1210	.29*	1222	.27
NBR	0	0	185		64	
SBL	1	1600	42	.03*	31	.02
SBT	3	4800	1164	.27	1269	.31*
SBR	0	0	148		212	
EBL	2	3200	232	.07	335	.10
EBT	1	1600	658	.41*	361	.23*
EBR	1	1600	31	.02	40	.03
WBL	1	1600	136	.09*	283	.18*
WBT	2	3200	286	.10	734	.25
WBR	0	0	26		76	
TOTAL CAPACITY UTILIZATION				**.82**		**.73**

69. Rose & Wooley

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	32	.02	33	.02*
NBT	2	3200	1053	.33*	851	.27
NBR	1	1600	120	.08	87	.05
SBL	1	1600	22	.01*	9	.01
SBT	2	3200	1002	.31	1270	.40*
SBR	f		393		468	
EBL	2	3200	338	.11	335	.10*
EBT	2	3200	482	.16*	284	.11
EBR	0	0	34		59	
WBL	1	1600	83	.05*	168	.11
WBT	2	3200	189	.07	549	.18*
WBR	0	0	19		29	
TOTAL CAPACITY UTILIZATION				**.55**		**.70**

71. Rose & Oxnard

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	150	.09*	149	.09*
NBT	2	3200	788	.25	753	.24
NBR	1	1600	33	.02	23	.01
SBL	2	3200	35	.01	58	.02
SBT	2	3200	599	.19*	1042	.33*
SBR	f		28		48	
EBL	0	0	0		0	
EBT	2	3200	331	.10*	208	.07
EBR	f		204		322	
WBL	0	0	1		0	
WBT	2	3200	250	.08	744	.23*
WBR	f		75		84	
TOTAL CAPACITY UTILIZATION				**.38**		**.65**

72. Rose & Channel Islands

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	149	.05	262	.08
NBT	2	3200	651	.20*	54	.02*
NBR	1	1600	218	.14	25	.02
SBL	1	1600	108	.07*	195	.12*
SBT	3	4800	527	.14	108	.03
SBR	0	0	137		340	.21
EBL	2	3200	375	.12	460	.14*
EBT	2	3200	892	.28*	462	.14
EBR	1	1600	190	.12	186	.12
WBL	2	3200	160	.05*	349	.11
WBT	2	3200	330	.10	971	.30*
WBR	1	1600	4	.00	8	.01
Right Turn Adjustment					SBR	.04*
TOTAL CAPACITY UTILIZATION				**.60**		**.62**

73. Rose & Bard

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	29	.02	47	.03*
NBT	2	3200	655	.20*	309	.10
NBR	1	1600	20	.01	18	.01
SBL	1	1600	197	.12*	70	.04
SBT	2	3200	378	.12	533	.17*
SBR	1	1600	155	.10	342	.21
EBL	1	1600	299	.19*	173	.11*
EBT	2	3200	222	.08	146	.06
EBR	0	0	29		42	
WBL	1	1600	7	.00	14	.01
WBT	2	3200	122	.08*	364	.16*
WBR	0	0	173	.11	142	

TOTAL CAPACITY UTILIZATION .59 .47

74. Rose & Pleasant Valley

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03	65	.04
NBT	2	3200	84	.03*	75	.02*
NBR	1	1600	59	.04	43	.03
SBL	1	1600	145	.09*	145	.09*
SBT	2	3200	60	.02	176	.06
SBR	1	1600	163	.10	270	.17
EBL	1	1600	267	.17*	233	.15*
EBT	2	3200	740	.23	420	.13
EBR	1	1600	25	.02	22	.01
WBL	1	1600	33	.02	78	.05
WBT	2	3200	489	.15*	734	.23*
WBR	1	1600	113	.07	136	.09

TOTAL CAPACITY UTILIZATION .44 .49

77. Dupont & Channel Islands

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	2		2	
NBT	1	1600	50	.03	107	.07
NBR	1	1600	375	.23	324	.20
SBL	1	1600	129	.08	57	.04
SBT	1	1600	128	.11*	166	.13*
SBR	0	0	50		43	
EBL	1	1600	12	.01	50	.03
EBT	1	1600	413	.26*	151	.09*
EBR	1	1600	28	.02	243	.15
WBL	1	1600	251	.16*	635	.40*
WBT	2	3200	162	.05	463	.14
WBR	1	1600	48	.03	185	.12
Right Turn Adjustment			NBR	.08*	EBR	.06*

TOTAL CAPACITY UTILIZATION .61 .68

78. Bard & Pleasant Valley

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1600	0	.01*	0	.01*
NBR	0	0	13		16	
SBL	1.5		307		183	
SBT	0.5	3200	2	.10*	11	.06*
SBR	1	1600	12	.01	21	.01
EBL	1	1600	50	.03	42	.03*
EBT	2	3200	1056	.33*	553	.17
EBR	0	0	5		0	
WBL	1	1600	15	.01*	39	.02
WBT	2	3200	595	.30	1021	.50*
WBR	0	0	375		565	

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .45 .60

82. Rice & Camino Del Sol

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	102	.06	211	.13*
NBT	3	4800	1847	.38*	1519	.32
NBR	1	1600	104	.07	40	.03
SBL	1	1600	208	.13*	72	.05
SBT	3	4800	1320	.28	2069	.43*
SBR	d	1600	162	.10	621	.39
EBL	1	1600	450	.28*	156	.10*
EBT	2	3200	371	.12	198	.06
EBR	1	1600	74	.05	60	.04
WBL	1	1600	44	.03	87	.05
WBT	2	3200	139	.04*	460	.14*
WBR	1	1600	99	.06	193	.12

TOTAL CAPACITY UTILIZATION .83 .80

84. Rice & Fifth

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	14	.01	29	.02*
NBT	2	3200	2080	.65*	1326	.41
NBR	1	1600	328	.21	233	.15
SBL	1	1600	21	.01*	20	.01
SBT	2	3200	1084	.34	2167	.68*
SBR	1	1600	100	.06	229	.14
EBL	1	1600	202	.13	109	.07
EBT	2	3200	541	.17*	310	.10*
EBR	0	0	18		12	
WBL	1	1600	147	.09*	442	.28*
WBT	2	3200	258	.09	574	.19
WBR	0	0	19		43	

TOTAL CAPACITY UTILIZATION .92 1.08

85. Rice & Wooley

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	25	.02	85	.05*
NBT	2	3200	1942	.61*	1281	.40
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1041	.33	2062	.64*
SBR	1	1600	258	.16	609	.38
EBL	2	3200	625	.20*	423	.13*
EBT	0	0	0		0	
EBR	1	1600	33	.02	13	.01
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .81 .82

86. Rice & Channel Islands

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	82	.05*	350	.22*
NBT	2	3200	921	.29	1068	.33
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	786	.25*	1209	.38*
SBR	d	1600	239	.15	1020	.64
EBL	2	3200	916	.29*	278	.09*
EBT	0	0	0		0	
EBR	1	1600	123	.08	22	.01
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					SBR	.19*

TOTAL CAPACITY UTILIZATION .59 .88

87. SR-1/Rice NB & Pleasant Vly

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	97	.03*	404	.13*
NBT	1	1600	4	.02	10	.02
NBR	0	0	26		15	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	440	.28*	264	.17*
EBT	2	3200	983	.31	636	.20
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	580	.21*	1343	.48*
WBR	0	0	89		183	

TOTAL CAPACITY UTILIZATION .52 .78

88. Oxnard & Pleasant Valley

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	229	.14*	590	.37*
NBT	2	3200	1	.00	9	.00
NBR	1	1600	81	.05	74	.05
SBL	1	1600	299	.19	161	.10
SBT	2	3200	333	.10*	148	.05*
SBR	1	1600	81	.05	112	.07
EBL	1	1600	104	.07	68	.04*
EBT	2	3200	1154	.36*	572	.18
EBR	1	1600	192	.12	566	.35
WBL	1	1600	16	.01*	14	.01
WBT	2	3200	522	.16	1081	.34*
WBR	f		152		697	

TOTAL CAPACITY UTILIZATION .61 .80

89. Rice & Hueneme

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	45	.03*	20	.01*
SBT	0	0	0		0	
SBR	f		168		280	
EBL	2	3200	264	.08*	202	.06*
EBT	1	1600	440	.28	445	.28
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	354	.22*	698	.44*
WBR	f		31		105	

TOTAL CAPACITY UTILIZATION .33 .51

92. Del Norte & Camino Del Sol

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03	175	.11*
NBT	2	3200	792	.25*	615	.19
NBR	d	1600	10	.01	5	.00
SBL	1	1600	48	.03*	40	.03
SBT	2	3200	505	.16	815	.25*
SBR	1	1600	194	.12	385	.24
EBL	1	1600	467	.29*	302	.19*
EBT	1	1600	15	.01	10	.01
EBR	1	1600	102	.06	46	.03
WBL	0	0	10		22	
WBT	1	1600	7	.02*	21	.04*
WBR	0	0	8		17	

TOTAL CAPACITY UTILIZATION .59 .59

94. Del Norte & 5th St

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	83	.05*	192	.12*
SBT	0	0	0		0	
SBR	1	1600	206	.13	397	.25
EBL	1	1600	392	.25*	128	.08*
EBT	1	1600	653	.41	378	.24
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	232	.26*	707	.51*
WBR	0	0	180		102	
Right Turn Adjustment					SBR	.07*
TOTAL CAPACITY UTILIZATION				**.56**		**.78**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				1.00		1.00	0.97	0.95			0.86	1.00
Frt				1.00		0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770		1583	3433	3539			6408	1583
Flt Permitted				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770		1583	3433	3539			6408	1583
Volume (vph)	0	0	0	136	0	178	623	123	0	0	163	450
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	0	0	0	166	0	217	760	150	0	0	199	549
RTOR Reduction (vph)	0	0	0	0	0	182	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	166	0	35	760	150	0	0	199	549
Turn Type				custom		custom	Prot					Free
Protected Phases							5	2			6	
Permitted Phases				8		8						Free
Actuated Green, G (s)				13.4		13.4	32.1	68.6			32.5	90.0
Effective Green, g (s)				14.4		14.4	33.1	69.6			33.5	90.0
Actuated g/C Ratio				0.16		0.16	0.37	0.77			0.37	1.00
Clearance Time (s)				4.0		4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				283		253	1263	2737			2385	1583
v/s Ratio Prot							c0.22	0.04			0.03	
v/s Ratio Perm				c0.09		0.02						c0.35
v/c Ratio				0.59		0.14	0.60	0.05			0.08	0.35
Uniform Delay, d1				35.0		32.5	23.1	2.4			18.3	0.0
Progression Factor				1.00		1.00	0.88	0.84			1.00	1.00
Incremental Delay, d2				3.1		0.2	0.8	0.0			0.1	0.6
Delay (s)				38.1		32.7	21.1	2.1			18.4	0.6
Level of Service				D		C	C	A			B	A
Approach Delay (s)		0.0			35.1			18.0			5.3	
Approach LOS		A			D			B			A	

Intersection Summary

HCM Average Control Delay	16.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97		1.00					0.86	1.00	0.97	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433		1583					6408	1583	3433	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433		1583					6408	1583	3433	3539	
Volume (vph)	62	0	720	0	0	0	0	701	143	117	180	0
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	74	0	857	0	0	0	0	835	170	139	214	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	74	0	857	0	0	0	0	835	170	139	214	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	6.0		90.0					64.1	90.0	7.9	76.0	
Effective Green, g (s)	7.0		90.0					65.1	90.0	8.9	77.0	
Actuated g/C Ratio	0.08		1.00					0.72	1.00	0.10	0.86	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	267		1583					4635	1583	339	3028	
v/s Ratio Prot								0.13		0.04	0.06	
v/s Ratio Perm	0.02		c0.54						0.11			
v/c Ratio	0.28		0.54					0.18	0.11	0.41	0.07	
Uniform Delay, d1	39.1		0.0					4.0	0.0	38.1	1.0	
Progression Factor	1.00		1.00					1.00	1.00	0.57	1.11	
Incremental Delay, d2	0.6		1.3					0.1	0.1	0.8	0.0	
Delay (s)	39.7		1.3					4.0	0.1	22.4	1.2	
Level of Service	D		A					A	A	C	A	
Approach Delay (s)		4.4			0.0			3.4			9.5	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	4.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	34.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97	0.95	0.88	0.97	0.91		0.86	0.86	1.00	0.94	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	2787	3433	5003		1522	4806	1583	4990	3519	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	2787	3433	5003		1522	4806	1583	4990	3519	
Volume (vph)	83	562	780	104	811	98	260	1173	175	594	442	17
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	91	618	857	114	891	108	286	1289	192	653	486	19
RTOR Reduction (vph)	0	0	518	0	18	0	0	0	83	0	3	0
Lane Group Flow (vph)	91	618	339	114	981	0	286	1289	109	653	502	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			
Actuated Green, G (s)	3.1	19.2	19.2	3.1	19.2		23.9	23.9	23.9	15.0	15.0	
Effective Green, g (s)	4.1	20.2	20.2	4.1	20.2		24.9	24.9	24.9	16.0	16.0	
Actuated g/C Ratio	0.05	0.26	0.26	0.05	0.26		0.32	0.32	0.32	0.21	0.21	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	182	926	729	182	1309		491	1550	511	1034	729	
v/s Ratio Prot	0.03	0.17		c0.03	c0.20		0.19	c0.27		0.13	c0.14	
v/s Ratio Perm			0.12						0.07			
v/c Ratio	0.50	0.67	0.46	0.63	0.75		0.58	0.83	0.21	0.63	0.69	
Uniform Delay, d1	35.6	25.5	24.0	35.8	26.2		21.8	24.2	19.0	27.9	28.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.2	3.8	2.1	6.6	4.0		1.8	4.0	0.2	1.3	2.7	
Delay (s)	37.7	29.3	26.1	42.4	30.1		23.6	28.2	19.2	29.2	31.0	
Level of Service	D	C	C	D	C		C	C	B	C	C	
Approach Delay (s)		28.0			31.4			26.5			30.0	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	28.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	77.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Volume (vph)	223	1285	63	275	810	356	93	734	405	514	962	61
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	235	1353	66	289	853	375	98	773	426	541	1013	64
RTOR Reduction (vph)	0	0	37	0	0	202	0	0	132	0	0	43
Lane Group Flow (vph)	235	1353	29	289	853	173	98	773	294	541	1013	21
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.7	30.0	30.0	6.0	27.3	27.3	3.2	16.0	16.0	12.0	24.8	24.8
Effective Green, g (s)	9.7	31.0	31.0	7.0	28.3	28.3	4.2	17.0	17.0	13.0	25.8	25.8
Actuated g/C Ratio	0.12	0.39	0.39	0.09	0.35	0.35	0.05	0.21	0.21	0.16	0.32	0.32
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	416	1371	613	300	1799	560	180	1081	336	558	1640	511
v/s Ratio Prot	0.07	c0.38		c0.08	0.17		0.03	0.15		c0.16	0.20	
v/s Ratio Perm			0.02			0.11			c0.19			0.01
v/c Ratio	0.56	0.99	0.05	0.96	0.47	0.31	0.54	0.72	0.87	0.97	0.62	0.04
Uniform Delay, d1	33.2	24.3	15.3	36.4	20.1	18.8	37.0	29.3	30.5	33.3	22.9	18.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.8	21.0	0.0	41.8	0.2	0.3	3.3	4.1	25.6	30.1	1.8	0.1
Delay (s)	34.9	45.3	15.3	78.1	20.3	19.1	40.3	33.3	56.1	63.4	24.7	18.8
Level of Service	C	D	B	E	C	B	D	C	E	E	C	B
Approach Delay (s)		42.6			31.0			41.3			37.4	
Approach LOS		D			C			D			D	

Intersection Summary

HCM Average Control Delay	38.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	85.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.97		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3529		1770	1863	1583	1770	3447		1770	3520	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3529		1770	1863	1583	1770	3447		1770	3520	
Volume (vph)	29	394	8	36	147	56	23	857	181	124	877	32
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	34	464	9	42	173	66	27	1008	213	146	1032	38
RTOR Reduction (vph)	0	2	0	0	0	53	0	20	0	0	3	0
Lane Group Flow (vph)	34	471	0	42	173	13	27	1201	0	146	1067	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	2.2	13.8		2.2	13.8	13.8	1.5	37.0		8.0	43.5	
Effective Green, g (s)	3.2	14.8		3.2	14.8	14.8	2.5	38.0		9.0	44.5	
Actuated g/C Ratio	0.04	0.19		0.04	0.19	0.19	0.03	0.49		0.12	0.58	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	74	678		74	358	304	57	1701		207	2034	
v/s Ratio Prot	0.02	c0.13		c0.02	0.09		0.02	c0.35		c0.08	0.30	
v/s Ratio Perm						0.01						
v/c Ratio	0.46	0.70		0.57	0.48	0.04	0.47	0.71		0.71	0.52	
Uniform Delay, d1	36.1	29.0		36.2	27.7	25.3	36.6	15.2		32.7	9.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.5	3.1		9.6	1.0	0.1	6.1	2.5		10.4	1.0	
Delay (s)	40.5	32.1		45.8	28.7	25.4	42.7	17.7		43.1	10.8	
Level of Service	D	C		D	C	C	D	B		D	B	
Approach Delay (s)		32.7			30.5			18.2			14.7	
Approach LOS		C			C			B			B	

Intersection Summary

HCM Average Control Delay	20.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	77.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	64.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Util. Factor	1.00	1.00	1.00			1.00	0.91		1.00	0.95		
Frt	1.00	1.00	0.85			1.00	0.89		1.00	0.86		
Flt Protected	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1583			1770	4512		1770	3051		
Flt Permitted	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1863	1583			1770	4512		1770	3051		
Volume (vph)	24	374	495	82	17	145	32	98	152	60	562	129
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	28	440	582	96	20	171	38	115	179	71	661	152
RTOR Reduction (vph)	0	0	4	0	0	0	102	0	0	12	0	0
Lane Group Flow (vph)	28	440	674	0	0	191	51	0	179	872	0	0
Turn Type	Split		Perm		Split	Split			Split			
Protected Phases	4	4			8	8	8		2	2		
Permitted Phases			4									
Actuated Green, G (s)	44.0	44.0	44.0			16.0	16.0		31.0	31.0		
Effective Green, g (s)	45.0	45.0	45.0			17.0	17.0		32.0	32.0		
Actuated g/C Ratio	0.30	0.30	0.30			0.11	0.11		0.21	0.21		
Clearance Time (s)	4.0	4.0	4.0			4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	531	559	475			201	511		378	651		
v/s Ratio Prot	0.02	0.24				c0.11	0.01		0.10	c0.29		
v/s Ratio Perm			c0.43									
v/c Ratio	0.05	0.79	1.42			0.95	0.10		0.47	2.32dr		
Uniform Delay, d1	37.3	48.1	52.5			66.1	59.6		51.6	59.0		
Progression Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.0	7.2	200.4			49.2	0.1		0.9	163.1		
Delay (s)	37.4	55.3	252.9			115.3	59.7		52.6	222.1		
Level of Service	D	E	F			F	E		D	F		
Approach Delay (s)		171.8					90.6			193.6		
Approach LOS		F					F			F		

Intersection Summary

HCM Average Control Delay	149.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	95.5%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

Movement	SBL2	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	
Lane Util. Factor		0.86	0.86		1.00	1.00	0.88	
Frt		1.00	0.99		1.00	1.00	0.85	
Flt Protected		0.95	0.98		0.95	0.95	1.00	
Satd. Flow (prot)		1522	4649		1770	1770	2787	
Flt Permitted		0.95	0.98		0.95	0.95	1.00	
Satd. Flow (perm)		1522	4649		1770	1770	2787	
Volume (vph)	42	483	281	43	12	168	199	11
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	49	568	331	51	14	198	234	13
RTOR Reduction (vph)	0	0	6	0	0	0	3	0
Lane Group Flow (vph)	0	309	684	0	14	198	244	0
Turn Type	Split		Prot		Prot	Prot		
Protected Phases	6	6	6		1	1		
Permitted Phases							1	
Actuated Green, G (s)		23.0	23.0		16.0	16.0	16.0	
Effective Green, g (s)		24.0	24.0		17.0	17.0	17.0	
Actuated g/C Ratio		0.16	0.16		0.11	0.11	0.11	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		244	744		201	201	316	
v/s Ratio Prot		c0.20	0.15		0.01	c0.11		
v/s Ratio Perm							0.09	
v/c Ratio		1.27	1.12dl		0.07	0.99	0.77	
Uniform Delay, d1		63.0	62.0		59.4	66.4	64.6	
Progression Factor		1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2		148.2	16.3		0.1	58.7	11.2	
Delay (s)		211.2	78.4		59.6	125.1	75.8	
Level of Service		F	E		E	F	E	
Approach Delay (s)			119.5			96.6		
Approach LOS			F			F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	509	0	242	0	1135	320	0	1313	306
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	566	0	269	0	1261	356	0	1459	340
RTOR Reduction (vph)	0	0	0	0	0	45	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	566	0	224	0	1261	356	0	1459	340
Turn Type				Prot		custom			Free			Free
Protected Phases				3				2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				20.5		20.5		61.5	90.0		61.5	90.0
Effective Green, g (s)				21.5		21.5		62.5	90.0		62.5	90.0
Actuated g/C Ratio				0.24		0.24		0.69	1.00		0.69	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				820		378		3531	1583		2458	1583
v/s Ratio Prot				c0.16				0.25			c0.41	
v/s Ratio Perm						0.14			0.22			0.21
v/c Ratio				0.69		0.59		0.36	0.22		0.59	0.21
Uniform Delay, d1				31.2		30.4		5.6	0.0		7.1	0.0
Progression Factor				1.00		1.00		0.63	1.00		1.00	1.00
Incremental Delay, d2				2.5		2.5		0.2	0.3		1.1	0.3
Delay (s)				33.7		32.9		3.8	0.3		8.2	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			33.5			3.0			6.7	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	10.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.87						1.00	0.85		0.96	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1533						3539	1583		4905	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1533						3539	1583		4905	
Volume (vph)	250	0	171	0	0	0	0	1196	881	0	1397	433
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	287	0	197	0	0	0	0	1375	1013	0	1606	498
RTOR Reduction (vph)	0	21	0	0	0	0	0	0	0	0	42	0
Lane Group Flow (vph)	251	212	0	0	0	0	0	1375	1013	0	2062	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.9	17.9						64.1	90.0		64.1	
Effective Green, g (s)	18.9	18.9						65.1	90.0		65.1	
Actuated g/C Ratio	0.21	0.21						0.72	1.00		0.72	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	353	322						2560	1583		3548	
v/s Ratio Prot	0.15	0.14						0.39			0.42	
v/s Ratio Perm									c0.64			
v/c Ratio	0.71	0.66						0.54	0.64		0.58	
Uniform Delay, d1	33.0	32.6						5.6	0.0		5.9	
Progression Factor	1.00	1.00						1.00	1.00		0.75	
Incremental Delay, d2	6.6	4.8						0.8	2.0		0.6	
Delay (s)	39.6	37.4						6.4	2.0		5.0	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.5			0.0			4.6			5.0	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	8.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	55.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0			3.0	3.0		3.0	3.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.92			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1681	1595			5085	1583		5085	1583
Flt Permitted				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1681	1595			5085	1583		5085	1583
Volume (vph)	0	0	0	433	0	140	0	1033	702	0	1063	194
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.92	0.84	0.92	0.84	0.84	0.92	0.84	0.84
Adj. Flow (vph)	0	0	0	515	0	167	0	1230	836	0	1265	231
RTOR Reduction (vph)	0	0	0	0	23	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	356	303	0	0	1230	836	0	1265	231
Turn Type				Perm					Free			Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				23.0	23.0			59.0	90.0		59.0	90.0
Effective Green, g (s)				24.0	24.0			60.0	90.0		60.0	90.0
Actuated g/C Ratio				0.27	0.27			0.67	1.00		0.67	1.00
Clearance Time (s)				4.0	4.0			4.0			4.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				448	425			3390	1583		3390	1583
v/s Ratio Prot								0.24			0.25	
v/s Ratio Perm				c0.21	0.19				c0.53			0.15
v/c Ratio				0.79	0.71			0.36	0.53		0.37	0.15
Uniform Delay, d1				30.7	29.9			6.6	0.0		6.7	0.0
Progression Factor				1.00	1.00			0.96	1.00		1.00	1.00
Incremental Delay, d2				9.4	5.6			0.3	1.1		0.3	0.2
Delay (s)				40.1	35.5			6.6	1.1		7.0	0.2
Level of Service				D	D			A	A		A	A
Approach Delay (s)		0.0			37.9			4.4			5.9	
Approach LOS		A			D			A			A	

Intersection Summary			
HCM Average Control Delay	10.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.85	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1441	1504					5085	1583		5085	1583
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1441	1504					5085	1583		5085	1583
Volume (vph)	220	0	660	0	0	0	0	1561	535	0	1311	161
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	250	0	750	0	0	0	0	1774	608	0	1490	183
RTOR Reduction (vph)	0	9	9	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	250	366	366	0	0	0	0	1774	608	0	1490	183
Turn Type	Split		Perm						Free			Free
Protected Phases	4	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	28.0	28.0	28.0					54.0	90.0		54.0	90.0
Effective Green, g (s)	29.0	29.0	29.0					55.0	90.0		55.0	90.0
Actuated g/C Ratio	0.32	0.32	0.32					0.61	1.00		0.61	1.00
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)	542	464	485					3108	1583		3108	1583
v/s Ratio Prot	0.15	c0.25						c0.35			0.29	
v/s Ratio Perm			0.24						0.38			0.12
v/c Ratio	0.46	0.79	0.75					0.57	0.38		0.48	0.12
Uniform Delay, d1	24.3	27.7	27.3					10.5	0.0		9.6	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		0.70	1.00
Incremental Delay, d2	0.6	8.6	6.5					0.8	0.7		0.5	0.1
Delay (s)	24.9	36.3	33.8					11.2	0.7		7.2	0.1
Level of Service	C	D	C					B	A		A	A
Approach Delay (s)		32.5			0.0			8.5			6.4	
Approach LOS		C			A			A			A	

Intersection Summary

HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3539	1583		3539	1583	1770	3539	1583	3433	3539	1583
Flt Permitted		1.00	1.00		0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		3539	1583		3375	1583	1770	3539	1583	3433	3539	1583
Volume (vph)	0	331	204	1	250	75	150	788	33	35	599	28
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	360	222	1	272	82	163	857	36	38	651	30
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	14	0	0	0
Lane Group Flow (vph)	0	360	222	0	273	82	163	857	22	38	651	30
Turn Type			Free	Perm		Free	Prot		Perm	Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free	8		Free			2			Free
Actuated Green, G (s)		11.9	68.8		11.9	68.8	9.7	41.2	41.2	3.7	35.2	68.8
Effective Green, g (s)		12.9	68.8		12.9	68.8	10.7	42.2	42.2	4.7	36.2	68.8
Actuated g/C Ratio		0.19	1.00		0.19	1.00	0.16	0.61	0.61	0.07	0.53	1.00
Clearance Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		664	1583		633	1583	275	2171	971	235	1862	1583
v/s Ratio Prot		c0.10					c0.09	c0.24		0.01	0.18	
v/s Ratio Perm			0.14		0.08	0.05			0.01			0.02
v/c Ratio		0.54	0.14		0.43	0.05	0.59	0.39	0.02	0.16	0.35	0.02
Uniform Delay, d1		25.3	0.0		24.7	0.0	27.0	6.8	5.2	30.2	9.5	0.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.9	0.2		0.5	0.1	3.4	0.5	0.0	0.3	0.5	0.0
Delay (s)		26.2	0.2		25.2	0.1	30.4	7.3	5.3	30.5	10.0	0.0
Level of Service		C	A		C	A	C	A	A	C	A	A
Approach Delay (s)		16.3			19.4			10.8			10.7	
Approach LOS		B			B			B			B	

Intersection Summary

HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	68.8	Sum of lost time (s)	6.0
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor		1.00	1.00					0.95	1.00	1.00	0.95	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1775	1583					3539	1583	1770	3539	
Flt Permitted		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1775	1583					3539	1583	1770	3539	
Volume (vph)	267	2	1495	0	0	0	0	1253	698	136	1690	0
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	293	2	1643	0	0	0	0	1377	767	149	1857	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	364	0	0	0
Lane Group Flow (vph)	0	295	1643	0	0	0	0	1377	403	149	1857	0
Turn Type	Perm		Free						Perm	Prot		
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Actuated Green, G (s)		17.9	87.0					44.7	44.7	12.4	61.1	
Effective Green, g (s)		18.9	87.0					45.7	45.7	13.4	62.1	
Actuated g/C Ratio		0.22	1.00					0.53	0.53	0.15	0.71	
Clearance Time (s)		4.0						4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0						3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		386	1583					1859	832	273	2526	
v/s Ratio Prot								0.39		0.08	0.52	
v/s Ratio Perm		0.17	c1.04						0.25			
v/c Ratio		0.76	1.04					0.74	0.48	0.55	0.74	
Uniform Delay, d1		32.0	43.5					16.0	13.1	34.0	7.5	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		8.7	33.1					2.7	2.0	2.2	1.9	
Delay (s)		40.7	76.6					18.7	15.2	36.2	9.4	
Level of Service		D	E					B	B	D	A	
Approach Delay (s)		71.1			0.0			17.5			11.4	
Approach LOS		E			A			B			B	

Intersection Summary

HCM Average Control Delay	32.6	HCM Level of Service	C
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	87.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	75.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	3.0				
Lane Util. Factor	1.00	0.95			0.95		0.97	1.00				
Frt	1.00	1.00			0.98		1.00	0.85				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1770	3539			3469		3433	1583				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	1770	3539			3469		3433	1583				
Volume (vph)	440	983	0	0	580	89	97	0	26	0	0	0
Peak-hour factor, PHF	0.88	0.88	0.92	0.92	0.88	0.88	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	500	1117	0	0	659	101	110	0	30	0	0	0
RTOR Reduction (vph)	0	0	0	0	13	0	0	26	0	0	0	0
Lane Group Flow (vph)	500	1117	0	0	747	0	110	4	0	0	0	0
Turn Type	Prot						Perm					
Protected Phases	7	4			8			2				
Permitted Phases							2					
Actuated Green, G (s)	21.4	44.2			18.8		7.7	7.7				
Effective Green, g (s)	22.4	45.2			19.8		8.7	8.7				
Actuated g/C Ratio	0.37	0.75			0.33		0.15	0.15				
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	662	2670			1147		499	230				
v/s Ratio Prot	c0.28	0.32			c0.22			0.00				
v/s Ratio Perm							c0.03					
v/c Ratio	0.76	0.42			0.65		0.22	0.02				
Uniform Delay, d1	16.4	2.6			17.1		22.6	21.9				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	4.9	0.1			1.3		0.2	0.0				
Delay (s)	21.3	2.7			18.4		22.8	22.0				
Level of Service	C	A			B		C	C				
Approach Delay (s)		8.5			18.4			22.6			0.0	
Approach LOS		A			B			C			A	

Intersection Summary

HCM Average Control Delay	12.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	59.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	104	1154	192	16	522	152	229	1	81	299	333	81
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	113	1254	209	17	567	165	249	1	88	325	362	88
RTOR Reduction (vph)	0	0	120	0	0	0	0	0	75	0	0	71
Lane Group Flow (vph)	113	1254	89	17	567	165	249	1	13	325	362	17
Turn Type	Prot		Perm	Prot		Free	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free			2			6
Actuated Green, G (s)	7.2	29.0	29.0	0.7	22.5	70.5	12.5	9.8	9.8	15.0	12.3	12.3
Effective Green, g (s)	8.2	30.0	30.0	1.7	23.5	70.5	13.5	10.8	10.8	16.0	13.3	13.3
Actuated g/C Ratio	0.12	0.43	0.43	0.02	0.33	1.00	0.19	0.15	0.15	0.23	0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	206	1506	674	43	1180	1583	339	542	243	402	668	299
v/s Ratio Prot	c0.06	c0.35		0.01	0.16		0.14	0.00		c0.18	c0.10	
v/s Ratio Perm			0.06			c0.10			0.01			0.01
v/c Ratio	0.55	0.83	0.13	0.40	0.48	0.10	0.73	0.00	0.06	0.81	0.54	0.06
Uniform Delay, d1	29.4	18.0	12.3	33.9	18.7	0.0	26.8	25.3	25.5	25.8	25.8	23.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.0	4.1	0.1	5.9	0.3	0.1	8.0	0.0	0.1	11.4	0.9	0.1
Delay (s)	32.4	22.1	12.4	39.8	19.0	0.1	34.8	25.3	25.6	37.2	26.7	23.5
Level of Service	C	C	B	D	B	A	C	C	C	D	C	C
Approach Delay (s)		21.6			15.3			32.4			30.7	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	23.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	70.5	Sum of lost time (s)	9.0
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	1274	2	24	124	77	0	0	348	27
Peak Hour Factor	0.93	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.93	0.93
Hourly flow rate (vph)	0	0	0	1370	2	26	133	83	0	0	374	29

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	1398	216	403
Volume Left (vph)	1370	133	0
Volume Right (vph)	26	0	29
Hadj (s)	0.22	0.16	-0.01
Departure Headway (s)	6.1	6.8	6.3
Degree Utilization, x	2.35	0.41	0.70
Capacity (veh/h)	604	519	568
Control Delay (s)	629.1	14.4	22.6
Approach Delay (s)	629.1	14.4	22.6
Approach LOS	F	B	C

Intersection Summary			
Delay	442.0		
HCM Level of Service	F		
Intersection Capacity Utilization	113.0%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	22	1	316	0	0	0	0	175	339	52	1579	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.95	0.95	0.95	0.87	0.87	0.87	0.87	0.95
Hourly flow rate (vph)	25	1	363	0	0	0	0	201	390	60	1815	0

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total (vph)	390	591	1875
Volume Left (vph)	25	0	60
Volume Right (vph)	363	390	0
Hadj (s)	-0.51	-0.36	0.04
Departure Headway (s)	6.4	5.9	6.4
Degree Utilization, x	0.70	0.98	3.34
Capacity (veh/h)	546	602	566
Control Delay (s)	23.0	54.8	1071.3
Approach Delay (s)	23.0	54.8	1071.3
Approach LOS	C	F	F

Intersection Summary			
Delay	717.9		
HCM Level of Service	F		
Intersection Capacity Utilization	146.8%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				1.00		1.00	0.97	0.95			0.86	1.00
Frt				1.00		0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770		1583	3433	3539			6408	1583
Flt Permitted				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770		1583	3433	3539			6408	1583
Volume (vph)	0	0	0	382	0	280	719	95	0	0	270	294
Peak-hour factor, PHF	0.82	0.82	0.82	0.96	0.82	0.96	0.96	0.96	0.82	0.82	0.96	0.96
Adj. Flow (vph)	0	0	0	398	0	292	749	99	0	0	281	306
RTOR Reduction (vph)	0	0	0	0	0	208	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	398	0	84	749	99	0	0	281	306
Turn Type				custom		custom	Prot					Free
Protected Phases							5	2			6	
Permitted Phases				8		8						Free
Actuated Green, G (s)				22.1		22.1	28.9	49.9			17.0	80.0
Effective Green, g (s)				23.1		23.1	29.9	50.9			18.0	80.0
Actuated g/C Ratio				0.29		0.29	0.37	0.64			0.22	1.00
Clearance Time (s)				4.0		4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				511		457	1283	2252			1442	1583
v/s Ratio Prot							c0.22	0.03			0.04	
v/s Ratio Perm				c0.22		0.05						c0.19
v/c Ratio				0.78		0.18	0.58	0.04			0.19	0.19
Uniform Delay, d1				26.1		21.4	20.1	5.4			25.1	0.0
Progression Factor				1.00		1.00	0.78	0.63			1.00	1.00
Incremental Delay, d2				7.4		0.2	1.9	0.0			0.3	0.3
Delay (s)				33.5		21.6	17.7	3.5			25.4	0.3
Level of Service				C		C	B	A			C	A
Approach Delay (s)		0.0			28.4			16.0			12.3	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	19.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97		1.00					0.86	1.00	0.97	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433		1583					6408	1583	3433	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433		1583					6408	1583	3433	3539	
Volume (vph)	39	0	1081	0	0	0	0	693	211	106	394	0
Peak-hour factor, PHF	0.91	0.84	0.91	0.84	0.84	0.84	0.84	0.91	0.91	0.91	0.91	0.84
Adj. Flow (vph)	43	0	1188	0	0	0	0	762	232	116	433	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	43	0	1188	0	0	0	0	762	232	116	433	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	2.8		80.0					53.2	80.0	12.0	69.2	
Effective Green, g (s)	3.8		80.0					54.2	80.0	13.0	70.2	
Actuated g/C Ratio	0.05		1.00					0.68	1.00	0.16	0.88	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	163		1583					4341	1583	558	3105	
v/s Ratio Prot								0.12		0.03	0.12	
v/s Ratio Perm	0.01		c0.75						0.15			
v/c Ratio	0.26		0.75					0.18	0.15	0.21	0.14	
Uniform Delay, d1	36.8		0.0					4.7	0.0	29.0	0.7	
Progression Factor	1.00		1.00					1.00	1.00	0.76	1.91	
Incremental Delay, d2	0.9		3.3					0.1	0.2	0.2	0.1	
Delay (s)	37.6		3.3					4.8	0.2	22.1	1.4	
Level of Service	D		A					A	A	C	A	
Approach Delay (s)		4.5			0.0			3.7			5.8	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	4.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97	0.95	0.88	0.97	0.91		0.86	0.86	1.00	0.94	0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	2787	3433	4952		1522	4793	1583	4990	3528	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	2787	3433	4952		1522	4793	1583	4990	3528	
Volume (vph)	296	763	780	187	833	177	233	597	140	901	1036	22
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	308	795	812	195	868	184	243	622	146	939	1079	23
RTOR Reduction (vph)	0	0	593	0	36	0	0	0	119	0	1	0
Lane Group Flow (vph)	308	795	219	195	1016	0	208	657	27	939	1101	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			
Actuated Green, G (s)	8.3	23.3	23.3	6.0	21.0		15.5	15.5	15.5	29.2	29.2	
Effective Green, g (s)	9.3	24.3	24.3	7.0	22.0		16.5	16.5	16.5	30.2	30.2	
Actuated g/C Ratio	0.10	0.27	0.27	0.08	0.24		0.18	0.18	0.18	0.34	0.34	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	355	956	752	267	1210		279	879	290	1674	1184	
v/s Ratio Prot	0.09	c0.22		0.06	c0.21		0.14	c0.14		0.19	c0.31	
v/s Ratio Perm			0.08						0.02			
v/c Ratio	0.87	0.83	0.29	0.73	0.84		0.75	0.75	0.09	0.56	0.93	
Uniform Delay, d1	39.7	30.9	26.0	40.6	32.3		34.8	34.8	30.5	24.5	28.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	0.76	0.79	
Incremental Delay, d2	19.4	8.4	1.0	9.8	7.1		10.3	3.5	0.1	0.4	11.1	
Delay (s)	59.2	39.3	27.0	50.4	39.4		45.1	38.3	30.7	18.9	33.8	
Level of Service	E	D	C	D	D		D	D	C	B	C	
Approach Delay (s)		37.3			41.1			38.6			27.0	
Approach LOS		D			D			D			C	

Intersection Summary

HCM Average Control Delay	34.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	83.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Volume (vph)	242	1090	121	404	1421	444	181	873	317	424	1287	112
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	252	1135	126	421	1480	462	189	909	330	442	1341	117
RTOR Reduction (vph)	0	0	83	0	0	161	0	0	156	0	0	80
Lane Group Flow (vph)	252	1135	43	421	1480	301	189	909	174	442	1341	37
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	7.0	26.0	26.0	10.0	29.0	29.0	4.0	17.0	17.0	11.0	24.0	24.0
Effective Green, g (s)	8.0	27.0	27.0	11.0	30.0	30.0	5.0	18.0	18.0	12.0	25.0	25.0
Actuated g/C Ratio	0.10	0.34	0.34	0.14	0.38	0.38	0.06	0.22	0.22	0.15	0.31	0.31
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	343	1194	534	472	1907	594	215	1144	356	515	1589	495
v/s Ratio Prot	0.07	c0.32		c0.12	c0.29		0.06	0.18		c0.13	c0.26	
v/s Ratio Perm			0.03			0.19			0.11			0.02
v/c Ratio	0.73	0.95	0.08	0.89	0.78	0.51	0.88	0.79	0.49	0.86	0.84	0.07
Uniform Delay, d1	35.0	25.8	18.0	33.9	22.0	19.3	37.2	29.3	27.0	33.2	25.7	19.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.9	15.7	0.1	18.7	2.0	0.7	30.8	5.7	4.7	13.3	5.7	0.3
Delay (s)	42.9	41.5	18.1	52.6	24.1	20.0	68.0	35.0	31.7	46.5	31.3	19.6
Level of Service	D	D	B	D	C	B	E	C	C	D	C	B
Approach Delay (s)		39.8			28.4			38.6			34.1	
Approach LOS		D			C			D			C	

Intersection Summary

HCM Average Control Delay	34.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	85.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3449		1770	1863	1583	1770	3507		1770	3517	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3449		1770	1863	1583	1770	3507		1770	3517	
Volume (vph)	78	266	54	95	384	122	48	1103	72	129	1150	51
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	80	274	56	98	396	126	49	1137	74	133	1186	53
RTOR Reduction (vph)	0	22	0	0	0	97	0	6	0	0	4	0
Lane Group Flow (vph)	80	308	0	98	396	29	49	1205	0	133	1235	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	3.8	15.8		3.8	15.8	15.8	2.3	33.0		5.3	36.0	
Effective Green, g (s)	4.8	16.8		4.8	16.8	16.8	3.3	34.0		6.3	37.0	
Actuated g/C Ratio	0.06	0.23		0.06	0.23	0.23	0.04	0.46		0.09	0.50	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	115	784		115	424	360	79	1614		151	1761	
v/s Ratio Prot	0.05	0.09		c0.06	c0.21		0.03	0.34		c0.08	c0.35	
v/s Ratio Perm						0.02						
v/c Ratio	0.70	0.39		0.85	0.93	0.08	0.62	0.75		0.88	0.70	
Uniform Delay, d1	33.8	24.2		34.2	28.0	22.5	34.7	16.4		33.4	14.2	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	16.7	0.3		42.0	27.6	0.1	14.2	3.2		40.5	2.4	
Delay (s)	50.5	24.5		76.2	55.6	22.6	48.8	19.6		74.0	16.6	
Level of Service	D	C		E	E	C	D	B		E	B	
Approach Delay (s)		29.6			52.2			20.7			22.1	
Approach LOS		C			D			C			C	

Intersection Summary

HCM Average Control Delay	27.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	73.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Util. Factor	1.00	1.00	1.00			1.00	0.91		1.00	0.95		
Frt	1.00	1.00	0.85			1.00	0.92		1.00	0.86		
Flt Protected	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1583			1770	4668		1770	3033		
Flt Permitted	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1863	1583			1770	4668		1770	3033		
Volume (vph)	57	200	264	80	49	492	198	239	113	35	567	152
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	58	204	269	82	50	502	202	244	115	36	579	155
RTOR Reduction (vph)	0	0	8	0	0	0	147	0	0	15	0	0
Lane Group Flow (vph)	58	204	343	0	0	552	299	0	115	755	0	0
Turn Type	Split		Perm		Split	Split			Split			
Protected Phases	4	4			8	8	8		2	2		
Permitted Phases			4									
Actuated Green, G (s)	23.0	23.0	23.0			30.0	30.0		28.0	28.0		
Effective Green, g (s)	24.0	24.0	24.0			31.0	31.0		29.0	29.0		
Actuated g/C Ratio	0.16	0.16	0.16			0.21	0.21		0.19	0.19		
Clearance Time (s)	4.0	4.0	4.0			4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	283	298	253			366	965		342	586		
v/s Ratio Prot	0.03	0.11				c0.31	0.06		0.06	c0.25		
v/s Ratio Perm			c0.22									
v/c Ratio	0.20	0.68	1.36			1.51	0.31		0.34	2.29dr		
Uniform Delay, d1	54.7	59.4	63.0			59.5	50.4		52.2	60.5		
Progression Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.4	6.4	184.4			242.5	0.2		0.6	142.6		
Delay (s)	55.1	65.8	247.4			302.0	50.6		52.8	203.1		
Level of Service	E	E	F			F	D		D	F		
Approach Delay (s)		168.8					189.6			183.6		
Approach LOS		F					F			F		

Intersection Summary

HCM Average Control Delay	173.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.38		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	120.7%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

Movement	SBL2	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	
Lane Util. Factor		0.86	0.86		1.00	1.00	0.88	
Frt		1.00	0.99		1.00	1.00	0.85	
Flt Protected		0.95	0.97		0.95	0.95	1.00	
Satd. Flow (prot)		1522	4657		1770	1770	2787	
Flt Permitted		0.95	0.97		0.95	0.95	1.00	
Satd. Flow (perm)		1522	4657		1770	1770	2787	
Volume (vph)	73	810	360	29	11	287	407	72
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	74	827	367	30	11	293	415	73
RTOR Reduction (vph)	0	0	2	0	0	0	9	0
Lane Group Flow (vph)	0	451	845	0	11	293	479	0
Turn Type	Split		Prot		Prot	Prot		
Protected Phases	6	6	6		1	1		
Permitted Phases							1	
Actuated Green, G (s)		29.0	29.0		20.0	20.0	20.0	
Effective Green, g (s)		30.0	30.0		21.0	21.0	21.0	
Actuated g/C Ratio		0.20	0.20		0.14	0.14	0.14	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		304	931		248	248	390	
v/s Ratio Prot		c0.30	0.18		0.01	0.17		
v/s Ratio Perm							c0.17	
v/c Ratio		1.48	1.33dl		0.04	1.18	1.23	
Uniform Delay, d1		60.0	58.6		55.8	64.5	64.5	
Progression Factor		1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2		234.5	12.3		0.1	115.2	123.8	
Delay (s)		294.5	70.9		55.9	179.7	188.3	
Level of Service		F	E		E	F	F	
Approach Delay (s)			148.6			183.3		
Approach LOS			F			F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	729	0	224	0	1209	261	0	1299	275
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	848	0	260	0	1406	303	0	1510	320
RTOR Reduction (vph)	0	0	0	0	0	24	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	848	0	236	0	1406	303	0	1510	320
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				28.0		28.0		54.0	90.0		54.0	90.0
Effective Green, g (s)				29.0		29.0		55.0	90.0		55.0	90.0
Actuated g/C Ratio				0.32		0.32		0.61	1.00		0.61	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1106		510		3108	1583		2163	1583
v/s Ratio Prot				c0.25		0.15		0.28			c0.43	
v/s Ratio Perm									0.19			0.20
v/c Ratio				0.77		0.46		0.45	0.19		0.70	0.20
Uniform Delay, d1				27.5		24.3		9.4	0.0		11.9	0.0
Progression Factor				1.00		1.00		0.60	1.00		1.00	1.00
Incremental Delay, d2				3.2		0.7		0.4	0.2		1.9	0.3
Delay (s)				30.7		25.0		6.1	0.2		13.8	0.3
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			29.3			5.0			11.4	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	63.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.90						1.00	0.85		0.98	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1561						3539	1583		4994	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1561						3539	1583		4994	
Volume (vph)	288	0	143	0	0	0	0	1269	726	0	1862	252
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	306	0	152	0	0	0	0	1350	772	0	1981	268
RTOR Reduction (vph)	0	8	0	0	0	0	0	0	0	0	12	0
Lane Group Flow (vph)	240	210	0	0	0	0	0	1350	772	0	2237	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.3	17.3						64.7	90.0		64.7	
Effective Green, g (s)	18.3	18.3						65.7	90.0		65.7	
Actuated g/C Ratio	0.20	0.20						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	342	317						2583	1583		3646	
v/s Ratio Prot	c0.14	0.13						0.38			c0.45	
v/s Ratio Perm									0.49			
v/c Ratio	0.70	0.66						0.52	0.49		0.61	
Uniform Delay, d1	33.3	33.0						5.3	0.0		5.9	
Progression Factor	1.00	1.00						0.79	1.00		0.78	
Incremental Delay, d2	6.4	5.1						0.7	1.0		0.5	
Delay (s)	39.7	38.1						4.9	1.0		5.2	
Level of Service	D	D						A	A		A	
Approach Delay (s)		39.0			0.0			3.4			5.2	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0			3.0	3.0		3.0	3.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.91			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1681	1576			5085	1583		5085	1583
Flt Permitted				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1681	1576			5085	1583		5085	1583
Volume (vph)	0	0	0	580	0	239	0	1602	843	0	1347	465
Peak-hour factor, PHF	0.92	0.92	0.92	0.85	0.92	0.85	0.92	0.85	0.85	0.92	0.85	0.85
Adj. Flow (vph)	0	0	0	682	0	281	0	1885	992	0	1585	547
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	507	453	0	0	1885	992	0	1585	547
Turn Type				Perm					Free			Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				31.8	31.8			50.2	90.0		50.2	90.0
Effective Green, g (s)				32.8	32.8			51.2	90.0		51.2	90.0
Actuated g/C Ratio				0.36	0.36			0.57	1.00		0.57	1.00
Clearance Time (s)				4.0	4.0			4.0			4.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				613	574			2893	1583		2893	1583
v/s Ratio Prot								0.37			0.31	
v/s Ratio Perm				c0.30	0.29				c0.63			0.35
v/c Ratio				0.83	0.79			0.65	0.63		0.55	0.35
Uniform Delay, d1				26.0	25.5			13.3	0.0		12.2	0.0
Progression Factor				1.00	1.00			1.03	1.00		1.00	1.00
Incremental Delay, d2				9.0	7.2			0.8	1.3		0.8	0.6
Delay (s)				35.0	32.7			14.5	1.3		12.9	0.6
Level of Service				C	C			B	A		B	A
Approach Delay (s)		0.0			33.9			9.9			9.7	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	13.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	61.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.85	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1442	1504					5085	1583		5085	1583
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1442	1504					5085	1583		5085	1583
Volume (vph)	392	0	910	0	0	0	0	2059	402	0	1815	177
Peak-hour factor, PHF	0.94	0.94	0.94	0.88	0.92	0.92	0.92	0.94	0.94	0.88	0.94	0.94
Adj. Flow (vph)	417	0	968	0	0	0	0	2190	428	0	1931	188
RTOR Reduction (vph)	0	3	3	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	414	484	481	0	0	0	0	2190	428	0	1931	188
Turn Type	Split		Perm						Free			Free
Protected Phases	4	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	34.4	34.4	34.4					47.6	90.0		47.6	90.0
Effective Green, g (s)	35.4	35.4	35.4					48.6	90.0		48.6	90.0
Actuated g/C Ratio	0.39	0.39	0.39					0.54	1.00		0.54	1.00
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)	661	567	592					2746	1583		2746	1583
v/s Ratio Prot	0.25	c0.34						c0.43			0.38	
v/s Ratio Perm			0.32						0.27			0.12
v/c Ratio	0.63	0.85	0.81					0.80	0.27		0.70	0.12
Uniform Delay, d1	22.0	24.9	24.3					16.7	0.0		15.4	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		0.68	1.00
Incremental Delay, d2	1.9	11.9	8.3					2.5	0.4		1.2	0.1
Delay (s)	23.8	36.8	32.7					19.2	0.4		11.6	0.1
Level of Service	C	D	C					B	A		B	A
Approach Delay (s)		31.5			0.0			16.2			10.6	
Approach LOS		C			A			B			B	

Intersection Summary

HCM Average Control Delay	17.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3539	1583		3539	1583	1770	3539	1583	3433	3539	1583
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		3539	1583		3539	1583	1770	3539	1583	3433	3539	1583
Volume (vph)	0	208	322	0	744	84	149	753	23	58	1042	48
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	226	350	0	809	91	162	818	25	63	1133	52
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	11	0	0	0
Lane Group Flow (vph)	0	226	350	0	809	91	162	818	14	63	1133	52
Turn Type			Free			Free	Prot		Perm	Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Actuated Green, G (s)		19.8	72.8		19.8	72.8	8.2	38.7	38.7	2.3	32.8	72.8
Effective Green, g (s)		20.8	72.8		20.8	72.8	9.2	39.7	39.7	3.3	33.8	72.8
Actuated g/C Ratio		0.29	1.00		0.29	1.00	0.13	0.55	0.55	0.05	0.46	1.00
Clearance Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1011	1583		1011	1583	224	1930	863	156	1643	1583
v/s Ratio Prot		0.06			c0.23		c0.09	0.23		0.02	c0.32	
v/s Ratio Perm			0.22			0.06			0.01			0.03
v/c Ratio		0.22	0.22		0.80	0.06	0.72	0.42	0.02	0.40	0.69	0.03
Uniform Delay, d1		19.8	0.0		24.1	0.0	30.6	9.8	7.6	33.8	15.4	0.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.1	0.3		4.6	0.1	11.0	0.7	0.0	1.7	2.4	0.0
Delay (s)		20.0	0.3		28.7	0.1	41.5	10.5	7.6	35.5	17.8	0.0
Level of Service		B	A		C	A	D	B	A	D	B	A
Approach Delay (s)		8.0			25.8			15.4			17.9	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	17.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	72.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor		1.00	1.00					0.95	1.00	1.00	0.95	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1770	1583					3539	1583	1770	3539	
Flt Permitted		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1770	1583					3539	1583	1770	3539	
Volume (vph)	146	0	760	0	0	0	0	2482	1025	225	1428	0
Peak-hour factor, PHF	0.91	0.96	0.96	0.25	0.91	0.91	0.91	0.96	0.96	0.96	0.96	0.91
Adj. Flow (vph)	160	0	792	0	0	0	0	2585	1068	234	1488	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	167	0	0	0
Lane Group Flow (vph)	0	160	792	0	0	0	0	2585	901	234	1488	0
Turn Type	Perm		Free						Perm	Prot		
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Actuated Green, G (s)		15.4	149.4					104.0	104.0	18.0	126.0	
Effective Green, g (s)		16.4	149.4					105.0	105.0	19.0	127.0	
Actuated g/C Ratio		0.11	1.00					0.70	0.70	0.13	0.85	
Clearance Time (s)		4.0						4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0						3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		194	1583					2487	1113	225	3008	
v/s Ratio Prot								c0.73		c0.13	0.42	
v/s Ratio Perm		0.09	0.50						0.57			
v/c Ratio		0.82	0.50					1.04	0.81	1.04	0.49	
Uniform Delay, d1		65.1	0.0					22.2	15.3	65.2	2.9	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		23.9	1.1					29.3	6.4	70.8	0.6	
Delay (s)		89.0	1.1					51.5	21.7	136.0	3.5	
Level of Service		F	A					D	C	F	A	
Approach Delay (s)		15.9			0.0			42.8			21.5	
Approach LOS		B			A			D			C	

Intersection Summary

HCM Average Control Delay	32.9	HCM Level of Service	C
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	149.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	99.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	3.0				
Lane Util. Factor	1.00	0.95			0.95		0.97	1.00				
Frt	1.00	1.00			0.98		1.00	0.85				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1770	3539			3475		3433	1583				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	1770	3539			3475		3433	1583				
Volume (vph)	264	636	0	0	1343	183	404	0	15	0	0	0
Peak-hour factor, PHF	0.94	0.94	0.92	0.92	0.94	0.94	0.94	0.88	0.94	0.92	0.92	0.92
Adj. Flow (vph)	281	677	0	0	1429	195	430	0	16	0	0	0
RTOR Reduction (vph)	0	0	0	0	14	0	0	12	0	0	0	0
Lane Group Flow (vph)	281	677	0	0	1610	0	430	4	0	0	0	0
Turn Type	Prot						Perm					
Protected Phases	7	4			8			2				
Permitted Phases							2					
Actuated Green, G (s)	10.0	50.0			36.0		17.0	17.0				
Effective Green, g (s)	11.0	51.0			37.0		18.0	18.0				
Actuated g/C Ratio	0.15	0.68			0.49		0.24	0.24				
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	260	2407			1714		824	380				
v/s Ratio Prot	c0.16	0.19			c0.46			0.00				
v/s Ratio Perm							c0.13					
v/c Ratio	1.08	0.28			0.94		0.52	0.01				
Uniform Delay, d1	32.0	4.7			17.9		24.8	21.7				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	79.0	0.1			10.4		2.4	0.0				
Delay (s)	111.0	4.8			28.4		27.1	21.8				
Level of Service	F	A			C		C	C				
Approach Delay (s)		36.0			28.4			26.9			0.0	
Approach LOS		D			C			C			A	

Intersection Summary

HCM Average Control Delay	30.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	68	572	566	14	1081	697	590	9	74	161	148	112
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	74	622	615	15	1175	758	641	10	80	175	161	122
RTOR Reduction (vph)	0	0	383	0	0	0	0	0	55	0	0	100
Lane Group Flow (vph)	74	622	232	15	1175	758	641	10	25	175	161	22
Turn Type	Prot		Perm	Prot		Free	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free			2			6
Actuated Green, G (s)	4.0	34.9	34.9	1.6	32.5	95.1	33.0	28.9	28.9	13.7	9.6	9.6
Effective Green, g (s)	5.0	35.9	35.9	2.6	33.5	95.1	34.0	29.9	29.9	14.7	10.6	10.6
Actuated g/C Ratio	0.05	0.38	0.38	0.03	0.35	1.00	0.36	0.31	0.31	0.15	0.11	0.11
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	93	1336	598	48	1247	1583	633	1113	498	274	394	176
v/s Ratio Prot	0.04	0.18		0.01	c0.33		c0.36	0.00		0.10	0.05	
v/s Ratio Perm			0.15			c0.48			0.02			0.01
v/c Ratio	0.80	0.47	0.39	0.31	0.94	0.48	1.01	0.01	0.05	0.64	0.41	0.12
Uniform Delay, d1	44.5	22.4	21.6	45.4	29.9	0.0	30.6	22.4	22.7	37.7	39.3	38.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	36.1	0.3	0.4	3.7	13.9	1.0	39.0	0.0	0.0	4.8	0.7	0.3
Delay (s)	80.6	22.6	22.0	49.1	43.7	1.0	69.5	22.4	22.8	42.5	40.0	38.4
Level of Service	F	C	C	D	D	A	E	C	C	D	D	D
Approach Delay (s)		25.6			27.2			63.7			40.5	
Approach LOS		C			C			E			D	

Intersection Summary

HCM Average Control Delay	34.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	95.1	Sum of lost time (s)	6.0
Intersection Capacity Utilization	83.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	480	2	76	625	642	0	0	206	36
Peak Hour Factor	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Hourly flow rate (vph)	0	0	0	500	2	79	651	669	0	0	215	38

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	581	1320	252
Volume Left (vph)	500	651	0
Volume Right (vph)	79	0	38
Hadj (s)	0.12	0.13	-0.06
Departure Headway (s)	6.5	6.5	6.9
Degree Utilization, x	1.05	2.38	0.49
Capacity (veh/h)	548	566	515
Control Delay (s)	76.6	642.6	16.3
Approach Delay (s)	76.6	642.6	16.3
Approach LOS	F	F	C

Intersection Summary			
Delay	416.5		
HCM Level of Service	F		
Intersection Capacity Utilization	122.7%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	49	0	197	0	0	0	0	1275	898	48	597	0
Peak Hour Factor	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Hourly flow rate (vph)	54	0	219	0	0	0	0	1417	998	53	663	0

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total (vph)	273	2414	717
Volume Left (vph)	54	0	53
Volume Right (vph)	219	998	0
Hadj (s)	-0.41	-0.21	0.05
Departure Headway (s)	6.6	5.6	5.9
Degree Utilization, x	0.50	3.78	1.17
Capacity (veh/h)	543	646	618
Control Delay (s)	16.0	1266.9	116.3
Approach Delay (s)	16.0	1266.9	116.3
Approach LOS	C	F	F

Intersection Summary			
Delay	924.2		
HCM Level of Service	F		
Intersection Capacity Utilization	143.5%	ICU Level of Service	H
Analysis Period (min)	15		

20. Ventura & Gonzales

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	130	.04	320	.10*
NBT	3	4800	1170	.24*	1230	.26
NBR	1	1600	380	.24	350	.22
SBL	2	3200	170	.05*	310	.10
SBT	3	4800	1100	.23	1530	.32*
SBR	1	1600	160	.10	100	.06
EBL	2	3200	280	.09*	290	.09
EBT	2	3200	330	.10	470	.15*
EBR	1	1600	100	.06	140	.09
WBL	2	3200	250	.08	624	.20*
WBT	2	3200	330	.10*	560	.18
WBR	1	1600	100	.06	160	.10

TOTAL CAPACITY UTILIZATION .48 .77

24. Ventura & Wooley

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	230	.14	250	.16
NBT	3	4800	860	.20*	1100	.25*
NBR	0	0	80		90	
SBL	2	3200	480	.15*	560	.18*
SBT	3	4800	750	.16	1040	.24
SBR	0	0	40		130	
EBL	2	3200	180	.06	240	.08*
EBT	3	4800	760	.20*	860	.19
EBR	0	0	180		50	
WBL	2	3200	170	.05*	400	.13
WBT	3	4800	500	.13	1190	.29*
WBR	0	0	100		180	

TOTAL CAPACITY UTILIZATION .60 .80

45. Oxnard & Vineyard

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	90	.03	240	.08
NBT	3	4800	1280	.27*	1950	.41*
NBR	2	3200	760	.24	910	.28
SBL	2	3200	100	.03*	180	.06*
SBT	4	6400	1340	.22	1530	.28
SBR	0	0	60		260	
EBL	1.5		280	.18	320	{.15}*
EBT	2.5	6400	1030	.21*	670	.15
EBR	1	1600	150	.09	100	.06
WBL	3	4800	540	.11*	770	.16
WBT	2	3200	350	.11	810	.26*
WBR	0	0	10		30	

TOTAL CAPACITY UTILIZATION .62 .88

46. Oxnard & Gonzales

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	120	.04	170	.05
NBT	3	4800	1210	.25*	1760	.37*
NBR	1	1600	260	.16	310	.19
SBL	2	3200	570	.18*	410	.13*
SBT	3	4800	1630	.34	1750	.36
SBR	1	1600	60	.04	120	.08
EBL	2	3200	300	.09	260	.08*
EBT	3	4800	910	.19*	980	.20
EBR	1	1600	80	.05	160	.10
WBL	2	3200	240	.08*	340	.11
WBT	3	4800	760	.16	1490	.31*
WBR	1	1600	390	.24	560	.35

TOTAL CAPACITY UTILIZATION .70 .89

49. Oxnard & 5th St

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	60	.04	70	.04
NBT	2	3200	830	.29*	1120	.37*
NBR	0	0	110		70	
SBL	1	1600	260	.16*	150	.09*
SBT	2	3200	1090	.34	1280	.42
SBR	0	0	10		70	
EBL	1	1600	30	.02	80	.05*
EBT	2	3200	410	.13*	410	.14
EBR	0	0	10		40	
WBL	1	1600	50	.03*	90	.06
WBT	1	1600	190	.12	440	.28*
WBR	1	1600	70	.04	120	.08

TOTAL CAPACITY UTILIZATION .61 .79

61. Rose & Auto Center

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	130	.08*	180	.11*
NBT	2	3200	620	.19	790	.25
NBR	1	1600	430	.27	540	.34
SBL	1	1600	320	.20	150	.09
SBT	2	3200	1100	.36*	700	.23*
SBR	0	0	40		40	
EBL	1	1600	40	.03	50	.03
EBT	1	1600	170	.11*	220	.14*
EBR	1	1600	220	.14	220	.14
WBL	2.5		200		760	
WBT	0.5	4800	50	.05*	260	.21*
WBR	1	1600	60	.04	240	.15

Note: Assumes E/W Split Phasing
Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION .60 .69

65. Rose & Gonzales

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	310	.10	390	.12
NBT	3	4800	1210	.25*	1510	.31*
NBR	1	1600	410	.26	400	.25
SBL	2	3200	540	.17*	250	.08*
SBT	4	6400	1270	.20	1670	.26
SBR	1	1600	240	.15	550	.34
EBL	2	3200	630	.20	470	.15*
EBT	3	4800	1290	.27*	700	.15
EBR	1	1600	460	.29	310	.19
WBL	2	3200	160	.05*	190	.06
WBT	4	6400	510	.08	1720	.27*
WBR	1	1600	250	.16	510	.32

TOTAL CAPACITY UTILIZATION .74 .81

66. Rose & Camino del Sol

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	170	.05	160	.05*
NBT	3	4800	1480	.34*	1680	.36
NBR	0	0	130		60	
SBL	2	3200	380	.12*	120	.04
SBT	3	4800	1670	.38	1670	.38*
SBR	0	0	140		130	
EBL	2	3200	220	.07	210	.07*
EBT	3	4800	520	.15*	210	.06
EBR	0	0	190		80	
WBL	2	3200	170	.05*	410	.13
WBT	2	3200	130	.04	730	.23*
WBR	1	1600	150	.09	440	.28

TOTAL CAPACITY UTILIZATION .66 .73

68. Rose & 5th

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	10	.01*	80	.05*
NBT	3	4800	1380	.29	1650	.34
NBR	1	1600	400	.25	120	.08
SBL	1	1600	20	.01	20	.01
SBT	3	4800	1760	.37*	1760	.37*
SBR	1	1600	160	.10	220	.14
EBL	2	3200	220	.07	330	.10*
EBT	2	3200	760	.24*	560	.18
EBR	1	1600	60	.04	100	.06
WBL	2	3200	190	.06*	550	.17
WBT	2	3200	240	.08	820	.26*
WBR	1	1600	10	.01	160	.10

TOTAL CAPACITY UTILIZATION .68 .78

69. Rose & Wooley

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03*	90	.06*
NBT	3	4800	1340	.28	1300	.27
NBR	1	1600	100	.06	60	.04
SBL	1	1600	40	.03	40	.03
SBT	3	4800	1580	.33*	1740	.36*
SBR	f		360		490	
EBL	2	3200	460	.14	460	.14*
EBT	2	3200	480	.17*	320	.12
EBR	0	0	50		70	
WBL	2	3200	140	.04*	200	.06
WBT	2	3200	120	.04	590	.19*
WBR	0	0	10		30	

TOTAL CAPACITY UTILIZATION .57 .75

71. Rose & Oxnard

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	190	.12*	390	.24*
NBT	3	4800	1280	.27	1250	.26
NBR	f		10		0	
SBL	2	3200	100	.03	100	.03
SBT	3	4800	1240	.26*	1380	.29*
SBR	f		40		60	
EBL	0	0	0		0	
EBT	2	3200	240	.08*	150	.05
EBR	f		190		60	
WBL	0	0	0		0	
WBT	2	3200	120	.04	450	.14*
WBR	1	1600	70	.04	100	.06

TOTAL CAPACITY UTILIZATION .46 .67

72. Rose & Channel Islands

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	280	.09*	430	.13*
NBT	3	4800	1130	.24	1410	.29
NBR	1	1600	310	.19	200	.13
SBL	1	1600	70	.04	140	.09
SBT	3	4800	1550	.32*	1390	.29*
SBR	1	1600	170	.11	270	.17
EBL	2	3200	440	.14	240	.08
EBT	3	4800	530	.16*	490	.15*
EBR	0	0	250		210	
WBL	2	3200	350	.11*	410	.13*
WBT	3	4800	480	.10	880	.19
WBR	0	0	10		10	

TOTAL CAPACITY UTILIZATION .68 .70

73. Rose & Bard

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	70	.04*	120	.08
NBT	3	4800	1420	.30	1570	.33*
NBR	0	0	10		30	
SBL	1	1600	140	.09	150	.09*
SBT	3	4800	1810	.41*	1120	.33
SBR	0	0	140		470	
EBL	1	1600	260	.16*	200	.13*
EBT	2	3200	170	.08	250	.11
EBR	0	0	70		100	
WBL	1	1600	40	.03	20	.01
WBT	2	3200	170	.11*	410	.19*
WBR	0	0	180	.11	190	
TOTAL CAPACITY UTILIZATION				**.72**		**.74**

74. Rose & Pleasant Valley

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	90	.03*	210	.07
NBT	3	4800	904	.22	1400	.37*
NBR	0	0	160		360	
SBL	2	3200	240	.08	130	.04*
SBT	3	4800	1420	.35*	950	.27
SBR	0	0	240		340	
EBL	2	3200	380	.12*	250	.08*
EBT	3	4800	730	.15	500	.10
EBR	1	1600	160	.10	90	.06
WBL	2	3200	380	.12	230	.07
WBT	3	4800	530	.15*	880	.21*
WBR	0	0	205		140	
TOTAL CAPACITY UTILIZATION				**.65**		**.70**

77. Dupont & Channel Islands

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	90	.06*	70	.04*
SBT	0	0	0		0	
SBR	1	1600	190	.12	150	.09
EBL	1	1600	20	.01	80	.05*
EBT	2	3200	830	.26*	730	.23
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	680	.21	1040	.33*
WBR	1	1600	60	.04	150	.09
Right Turn Adjustment			SBR	.02*	SBR	.01*
TOTAL CAPACITY UTILIZATION				**.34**		**.43**

78. Bard & Pleasant Valley

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	10	.01	10	.01
NBT	1	1600	10	.02*	10	.01*
NBR	0	0	20		10	
SBL	1	1600	180	.11*	320	.20*
SBT	1	1600	10	.01	10	.01
SBR	1	1600	50	.03	40	.03
EBL	1	1600	10	.01*	50	.03*
EBT	2	3200	890	.28	1280	.40
EBR	1	1600	10	.01	10	.01
WBL	1	1600	30	.02	10	.01
WBT	2	3200	1110	.48*	980	.43*
WBR	0	0	410		400	
TOTAL CAPACITY UTILIZATION				**.62**		**.67**

81. Rice & Gonzales

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	340	.11*	330	.10
NBT	4	6400	1400	.22	2670	.42*
NBR	1	1600	520	.33	140	.09
SBL	2	3200	800	.25	350	.11*
SBT	4	6400	2500	.39*	1660	.26
SBR	f		920		520	
EBL	2	3200	190	.06	270	.08*
EBT	4	6400	1490	.23*	1140	.18
EBR	1	1600	220	.14	320	.20
WBL	3	4800	250	.05*	650	.14
WBT	3	4800	620	.13	1310	.27*
WBR	1	1600	160	.10	420	.26

Right Turn Adjustment NBR .03*
Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION .81 .88

82. Rice & Camino Del Sol

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	60	.02	40	.01
NBT	3	4800	2220	.46*	1960	.41*
NBR	1	1600	10	.01	50	.03
SBL	2	3200	170	.05*	360	.11*
SBT	3	4800	1530	.32	2450	.51
SBR	1	1600	570	.36	370	.23
EBL	2	3200	500	.16*	430	.13*
EBT	3	4800	240	.05	340	.07
EBR	1	1600	10	.01	60	.04
WBL	2	3200	10	.00	10	.00
WBT	3	4800	40	.01*	110	.02*
WBR	1	1600	220	.14	40	.03

Right Turn Adjustment WBR .09*

TOTAL CAPACITY UTILIZATION .77 .67

85. Rice & Wooley

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	60	.04	100	.06*
NBT	3	4800	1590	.33*	1720	.36
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1270	.26	2250	.47*
SBR	1	1600	370	.23	590	.37
EBL	2	3200	740	.23*	650	.20*
EBT	0	0	0		0	
EBR	1	1600	90	.06	110	.07
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .56 .73

86. Rice & Channel Islands

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03*	90	.06
NBT	2	3200	860	.27	1300	.41*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	860	.27*	920	.29
SBR	f		410		1240	
EBL	2	3200	850	.27*	430	.13*
EBT	0	0	0		0	
EBR	1	1600	80	.05	90	.06
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .57 .54

87. SR-1/Rice NB & Pleasant Vly

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	120	.04*	280	.09*
NBT	0	0	0		0	
NBR	1	1600	40	.03	40	.03
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	390	.24*	210	.13*
EBT	2	3200	1270	.40	1550	.48
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	1020	.32*	1730	.54*
WBR	1	1600	160	.10	250	.16

TOTAL CAPACITY UTILIZATION .60 .76

88. Oxnard & Pleasant Valley

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	190	.12	330	.21
NBT	2	3200	10	.00*	10	.00*
NBR	1	1600	90	.06	50	.03
SBL	1	1600	340	.21*	360	.23*
SBT	2	3200	80	.03	50	.02
SBR	1	1600	30	.02	50	.03
EBL	1	1600	30	.02*	50	.03*
EBT	2	3200	1140	.36	1340	.42
EBR	1	1600	60	.04	40	.03
WBL	1	1600	20	.01	30	.02
WBT	2	3200	1160	.36*	1360	.43*
WBR	f		70		580	
Right Turn Adjustment			NBR	.04*		

TOTAL CAPACITY UTILIZATION .63 .69

89. Rice & Hueneme

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	30	.02*	10	.01*
SBT	0	0	0		0	
SBR	f		540		350	
EBL	2	3200	400	.13*	660	.21*
EBT	2	3200	510	.16	910	.28
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	780	.24*	810	.25*
WBR	f		10		40	

TOTAL CAPACITY UTILIZATION .39 .47

92. Del Norte & Camino Del Sol

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	90	.06	150	.09*
NBT	3	4800	1000	.21*	590	.13
NBR	0	0	20		10	
SBL	1	1600	20	.01*	50	.03
SBT	3	4800	370	.09	840	.23*
SBR	0	0	60		250	
EBL	2	3200	80	.03*	110	.03*
EBT	1	1600	10	.01	10	.01
EBR	1	1600	10	.01	10	.01
WBL	1	1600	10	.01	10	.01
WBT	1	1600	10	.01*	10	.01*
WBR	0	0	10		10	

TOTAL CAPACITY UTILIZATION .26 .36

94. Del Norte & 5th St

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	10		0	
SBL	2	3200	50	.02*	260	.08*
SBT	0	0	0		0	
SBR	2	3200	340	.11	610	.19
EBL	1	1600	480	.30*	180	.11*
EBT	2	3200	860	.27	840	.26
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	420	.13*	1030	.32*
WBR	1	1600	190	.12	130	.08
Right Turn Adjustment					SBR	.03*
TOTAL CAPACITY UTILIZATION				**.45**		**.54**

100. Rose & Hueneme

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	70	.04*	200	.13
NBT	3	4800	260	.05	920	.19*
NBR	f		100		600	
SBL	1	1600	20	.01	90	.06*
SBT	4	6400	820	.14*	330	.07
SBR	0	0	100		160	.10
EBL	1	1600	110	.07	70	.04*
EBT	2	3200	720	.23*	930	.29
EBR	f		700		120	
WBL	1	1600	330	.21*	80	.05
WBT	2	3200	1110	.35	1100	.34*
WBR	1	1600	10	.01	10	.01
TOTAL CAPACITY UTILIZATION				**.62**		**.63**

101. Oxnard & Channel Islands

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	80	.05*	350	.22*
NBT	2	3200	130	.04	640	.20
NBR	1	1600	10	.01	10	.01
SBL	1	1600	40	.03	80	.05
SBT	2	3200	410	.13*	180	.06*
SBR	1	1600	10	.01	0	.00
EBL	1	1600	10	.01	10	.01*
EBT	2	3200	820	.26*	630	.20
EBR	1	1600	400	.25	380	.24
WBL	1	1600	30	.02*	10	.01
WBT	2	3200	750	.23	1080	.34*
WBR	1	1600	90	.06	80	.05
TOTAL CAPACITY UTILIZATION				**.46**		**.63**

104. Del Norte & Gonzales

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	60	.04*	60	.04
NBT	4	6400	360	.06	2050	.32*
NBR	1	1600	370	.23	420	.26
SBL	1	1600	100	.06	70	.04*
SBT	3	4800	1030	.21*	390	.08
SBR	f		840		340	
EBL	2	3200	30	.01*	990	.31*
EBT	2	3200	180	.06	410	.13
EBR	1	1600	140	.09	180	.11
WBL	2	3200	50	.02	200	.06
WBT	3	4800	560	.12*	290	.06*
WBR	1	1600	70	.04	100	.06
TOTAL CAPACITY UTILIZATION				**.38**		**.73**

121. Rice & Bypass

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	2360	.49*	1630	.34
NBR	1	1600	600	.38	550	.34
SBL	2	3200	10	.00	20	.01
SBT	3	4800	1440	.30	2430	.51*
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	590	.18*	810	.25*
WBT	0	0	0		0	
WBR	f		50		60	

TOTAL CAPACITY UTILIZATION .67 .76

122. Bypass & Fifth

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	110	.07*	160	.10*
NBT	0	0	0		0	
NBR	1	1600	490	.31	420	.26
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3200	830	.26*	730	.23*
EBR	1	1600	70	.04	90	.06
WBL	2	3200	570	.18*	780	.24*
WBT	2	3200	460	.14	600	.19
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.10*		

TOTAL CAPACITY UTILIZATION .61 .57

124. Rice & Sakioka Street A

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	4	6400	1970	.31*	2300	.36*
NBR	f		930		390	
SBL	2	3200	800	.25*	350	.11*
SBT	3	4800	1800	.38	1640	.34
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	250	.08*	650	.20*
WBT	0	0	0		0	
WBR	f		330		1230	

TOTAL CAPACITY UTILIZATION .64 .67

125. Del Norte & Sakioka Street A

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	350	.22*	200	.13*
NBT	3	4800	560	.12	830	.17
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	740	.15*	870	.18*
SBR	1	1600	580	.36	270	.17
EBL	2	3200	380	.12*	1240	.39*
EBT	0	0	0		0	
EBR	1	1600	180	.11	210	.13
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			SBR	.12*		

TOTAL CAPACITY UTILIZATION .61 .70

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.91	0.95	0.97	0.95			0.86	1.00
Frt				1.00	0.85	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1441	1504	3433	3539			6408	1583
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1441	1504	3433	3539			6408	1583
Volume (vph)	0	0	0	100	0	340	810	420	0	0	470	600
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	105	0	358	853	442	0	0	495	632
RTOR Reduction (vph)	0	0	0	0	157	157	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	105	22	22	853	442	0	0	495	632
Turn Type				Perm		Perm	Prot					Free
Protected Phases					8		5	2			6	
Permitted Phases				8		8						Free
Actuated Green, G (s)				11.4	11.4	11.4	28.9	80.6			47.7	100.0
Effective Green, g (s)				12.4	12.4	12.4	29.9	81.6			48.7	100.0
Actuated g/C Ratio				0.12	0.12	0.12	0.30	0.82			0.49	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				208	179	186	1026	2888			3121	1583
v/s Ratio Prot							c0.25	0.12			0.08	
v/s Ratio Perm				c0.06	0.02	0.01						c0.40
v/c Ratio				0.50	0.12	0.12	0.83	0.15			0.16	0.40
Uniform Delay, d1				40.9	39.0	38.9	32.7	1.9			14.3	0.0
Progression Factor				1.00	1.00	1.00	0.78	2.09			1.00	1.00
Incremental Delay, d2				1.9	0.3	0.3	5.6	0.1			0.1	0.8
Delay (s)				42.9	39.3	39.2	31.2	4.1			14.4	0.8
Level of Service				D	D	D	C	A			B	A
Approach Delay (s)		0.0			40.1			22.0			6.7	
Approach LOS		A			D			C			A	

Intersection Summary

HCM Average Control Delay	18.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		0.88					0.86	1.00	0.97	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		2787					6408	1583	3433	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		2787					6408	1583	3433	3539	
Volume (vph)	190	0	1580	0	0	0	0	1040	410	160	410	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	200	0	1663	0	0	0	0	1095	432	168	432	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	200	0	1663	0	0	0	0	1095	432	168	432	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	15.5		100.0					61.2	100.0	11.3	76.5	
Effective Green, g (s)	16.5		100.0					62.2	100.0	12.3	77.5	
Actuated g/C Ratio	0.16		1.00					0.62	1.00	0.12	0.78	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	292		2787					3986	1583	422	2743	
v/s Ratio Prot								0.17		0.05	0.12	
v/s Ratio Perm	0.11		c0.60						0.27			
v/c Ratio	0.68		0.60					0.27	0.27	0.40	0.16	
Uniform Delay, d1	39.3		0.0					8.6	0.0	40.4	2.9	
Progression Factor	1.00		1.00					1.00	1.00	0.93	1.87	
Incremental Delay, d2	6.5		1.0					0.2	0.4	0.6	0.1	
Delay (s)	45.8		1.0					8.8	0.4	38.3	5.5	
Level of Service	D		A					A	A	D	A	
Approach Delay (s)		5.8			0.0			6.4			14.7	
Approach LOS		A			A			A			B	

Intersection Summary

HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97	0.91	0.88	0.97	0.86		0.86	0.86	1.00	0.94	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	5085	2787	3433	6367		1522	4806	1583	4990	3524	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	5085	2787	3433	6367		1522	4806	1583	4990	3524	
Volume (vph)	90	1280	760	100	1340	60	280	1030	150	540	350	10
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	95	1347	800	105	1411	63	295	1084	158	568	368	11
RTOR Reduction (vph)	0	0	570	0	9	0	0	0	100	0	3	0
Lane Group Flow (vph)	95	1347	230	105	1465	0	295	1084	58	568	376	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			
Actuated Green, G (s)	3.1	18.2	18.2	3.1	18.2		16.1	16.1	16.1	13.4	13.4	
Effective Green, g (s)	4.1	19.2	19.2	4.1	19.2		17.1	17.1	17.1	14.4	14.4	
Actuated g/C Ratio	0.06	0.29	0.29	0.06	0.29		0.26	0.26	0.26	0.22	0.22	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	211	1462	801	211	1830		390	1230	405	1076	760	
v/s Ratio Prot	0.03	c0.26		c0.03	0.23		0.19	c0.23		c0.11	0.11	
v/s Ratio Perm			0.08						0.04			
v/c Ratio	0.45	0.92	0.29	0.50	0.80		0.76	0.88	0.14	0.53	0.49	
Uniform Delay, d1	30.3	23.1	18.5	30.4	22.0		22.9	23.9	19.2	23.2	23.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.5	11.0	0.9	1.8	3.8		8.1	7.7	0.2	0.5	0.5	
Delay (s)	31.8	34.1	19.4	32.2	25.8		31.1	31.6	19.3	23.7	23.5	
Level of Service	C	C	B	C	C		C	C	B	C	C	
Approach Delay (s)		28.7			26.2			30.2			23.6	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	27.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	66.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Volume (vph)	300	910	80	240	760	390	120	1210	260	570	1630	60
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	316	958	84	253	800	411	126	1274	274	600	1716	63
RTOR Reduction (vph)	0	0	64	0	0	200	0	0	178	0	0	37
Lane Group Flow (vph)	316	958	20	253	800	211	126	1274	96	600	1716	26
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	7.0	15.8	15.8	7.0	15.8	15.8	3.2	19.8	19.8	12.0	28.6	28.6
Effective Green, g (s)	8.0	16.8	16.8	8.0	16.8	16.8	4.2	20.8	20.8	13.0	29.6	29.6
Actuated g/C Ratio	0.11	0.24	0.24	0.11	0.24	0.24	0.06	0.29	0.29	0.18	0.42	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	389	1210	377	389	1210	377	204	1498	466	632	2132	664
v/s Ratio Prot	c0.09	c0.19		0.07	0.16		0.04	0.25		c0.17	c0.34	
v/s Ratio Perm			0.01			0.13			0.06			0.02
v/c Ratio	0.81	0.79	0.05	0.65	0.66	0.56	0.62	0.85	0.21	0.95	0.80	0.04
Uniform Delay, d1	30.6	25.3	20.8	30.0	24.3	23.6	32.4	23.4	18.7	28.5	18.0	12.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	12.2	3.6	0.1	3.9	1.4	1.8	5.5	6.3	1.0	23.7	3.4	0.1
Delay (s)	42.8	28.9	20.8	33.8	25.7	25.4	37.9	29.7	19.7	52.1	21.3	12.2
Level of Service	D	C	C	C	C	C	D	C	B	D	C	B
Approach Delay (s)		31.6			27.0			28.7			28.9	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	29.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	70.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.98		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3526		1770	1863	1583	1770	3477		1770	3534	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3526		1770	1863	1583	1770	3477		1770	3534	
Volume (vph)	30	410	10	50	190	70	60	830	110	260	1090	10
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	32	432	11	53	200	74	63	874	116	274	1147	11
RTOR Reduction (vph)	0	2	0	0	0	60	0	11	0	0	1	0
Lane Group Flow (vph)	32	441	0	53	200	14	63	979	0	274	1157	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	2.3	15.2		3.0	15.9	15.9	3.8	37.0		16.5	49.7	
Effective Green, g (s)	3.3	16.2		4.0	16.9	16.9	4.8	38.0		17.5	50.7	
Actuated g/C Ratio	0.04	0.18		0.05	0.19	0.19	0.05	0.43		0.20	0.58	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	67	651		81	359	305	97	1507		353	2043	
v/s Ratio Prot	0.02	c0.13		c0.03	0.11		0.04	c0.28		c0.15	0.33	
v/s Ratio Perm						0.01						
v/c Ratio	0.48	0.68		0.65	0.56	0.05	0.65	0.65		0.78	0.57	
Uniform Delay, d1	41.4	33.3		41.2	32.0	28.8	40.6	19.6		33.2	11.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.3	2.8		17.4	1.9	0.1	14.0	2.2		10.2	1.1	
Delay (s)	46.6	36.1		58.6	33.9	28.9	54.6	21.8		43.5	12.7	
Level of Service	D	D		E	C	C	D	C		D	B	
Approach Delay (s)		36.8			36.8			23.8			18.6	
Approach LOS		D			D			C			B	

Intersection Summary

HCM Average Control Delay	24.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	87.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Util. Factor	1.00	1.00	1.00			0.86	0.86		1.00	0.95		
Frt	1.00	1.00	0.85			1.00	0.98		1.00	0.98		
Flt Protected	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1583			1522	4722		1770	3472		
Flt Permitted	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1863	1583			1522	4722		1770	3472		
Volume (vph)	120	690	290	205	10	70	380	50	220	480	70	90
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	141	812	341	241	12	82	447	59	259	565	82	106
RTOR Reduction (vph)	0	0	17	0	0	0	11	0	0	0	0	0
Lane Group Flow (vph)	141	812	565	0	0	94	495	0	259	647	0	0
Turn Type	Split		Perm		Split	Split			Split			Split
Protected Phases	4	4			8	8	8		2	2		6
Permitted Phases			4									
Actuated Green, G (s)	40.0	40.0	40.0			16.0	16.0		23.0	23.0		
Effective Green, g (s)	41.0	41.0	41.0			17.0	17.0		24.0	24.0		
Actuated g/C Ratio	0.27	0.27	0.27			0.11	0.11		0.16	0.16		
Clearance Time (s)	4.0	4.0	4.0			4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	484	509	433			172	535		283	556		
v/s Ratio Prot	0.08	c0.44				0.06	c0.10		0.15	c0.19		
v/s Ratio Perm			0.36									
v/c Ratio	0.29	1.60	1.31			0.55	0.93		0.92	1.16		
Uniform Delay, d1	43.0	54.5	54.5			62.9	65.9		62.0	63.0		
Progression Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.3	277.0	153.4			3.5	22.1		32.0	92.1		
Delay (s)	43.4	331.5	207.9			66.4	87.9		94.0	155.1		
Level of Service	D	F	F			E	F		F	F		
Approach Delay (s)		258.2					84.6			137.6		
Approach LOS		F					F			F		

Intersection Summary

HCM Average Control Delay	197.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.37		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	117.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.86	0.86		1.00	1.00	0.88	
Frt	1.00	0.99		1.00	1.00	0.85	
Flt Protected	0.95	0.99		0.95	0.95	1.00	
Satd. Flow (prot)	1522	4726		1770	1770	2787	
Flt Permitted	0.95	0.99		0.95	0.95	1.00	
Satd. Flow (perm)	1522	4726		1770	1770	2787	
Volume (vph)	290	615	45	100	470	270	10
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	341	724	53	118	553	318	12
RTOR Reduction (vph)	0	4	0	0	0	2	0
Lane Group Flow (vph)	295	925	0	118	553	328	0
Turn Type		Prot		Prot	Prot		
Protected Phases	6	6		1	1		
Permitted Phases						1	
Actuated Green, G (s)	21.0	21.0		30.0	30.0	30.0	
Effective Green, g (s)	22.0	22.0		31.0	31.0	31.0	
Actuated g/C Ratio	0.15	0.15		0.21	0.21	0.21	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	223	693		366	366	576	
v/s Ratio Prot	0.19	c0.20		0.07	c0.31		
v/s Ratio Perm						0.12	
v/c Ratio	1.32	1.33		0.32	1.51	0.57	
Uniform Delay, d1	64.0	64.0		50.6	59.5	53.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2	173.1	160.2		0.5	243.6	1.4	
Delay (s)	237.1	224.2		51.1	303.1	54.9	
Level of Service	F	F		D	F	D	
Approach Delay (s)		227.3			191.6		
Approach LOS		F			F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		5085	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		5085	1583
Volume (vph)	0	0	0	870	0	240	0	850	600	0	1770	280
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	916	0	253	0	895	632	0	1863	295
RTOR Reduction (vph)	0	0	0	0	0	67	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	916	0	186	0	895	632	0	1863	295
Turn Type				Prot		custom			Free			Free
Protected Phases				3				2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				30.2		30.2		51.8	90.0		51.8	90.0
Effective Green, g (s)				31.2		31.2		52.8	90.0		52.8	90.0
Actuated g/C Ratio				0.35		0.35		0.59	1.00		0.59	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1190		549		2983	1583		2983	1583
v/s Ratio Prot				c0.27				0.18			c0.37	
v/s Ratio Perm						0.12			0.40			0.19
v/c Ratio				0.77		0.34		0.30	0.40		0.62	0.19
Uniform Delay, d1				26.2		21.8		9.3	0.0		12.1	0.0
Progression Factor				1.00		1.00		0.81	1.00		1.00	1.00
Incremental Delay, d2				3.1		0.4		0.2	0.7		1.0	0.3
Delay (s)				29.3		22.1		7.8	0.7		13.1	0.3
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			27.7			4.8			11.4	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1583					5085	1583		5085	1583
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1583					5085	1583		5085	1583
Volume (vph)	100	0	220	0	0	0	0	1360	1250	0	1950	690
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	105	0	232	0	0	0	0	1432	1316	0	2053	726
RTOR Reduction (vph)	0	0	6	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	105	0	226	0	0	0	0	1432	1316	0	2053	726
Turn Type	Prot		custom						Free			Free
Protected Phases	7							2			6	
Permitted Phases			7						Free			Free
Actuated Green, G (s)	17.0		17.0					65.0	90.0		65.0	90.0
Effective Green, g (s)	18.0		18.0					66.0	90.0		66.0	90.0
Actuated g/C Ratio	0.20		0.20					0.73	1.00		0.73	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	687		317					3729	1583		3729	1583
v/s Ratio Prot	0.03							0.28			0.40	
v/s Ratio Perm			0.14						c0.83			0.46
v/c Ratio	0.15		0.71					0.38	0.83		0.55	0.46
Uniform Delay, d1	29.7		33.6					4.5	0.0		5.4	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.31	1.00
Incremental Delay, d2	0.1		7.3					0.3	5.2		0.4	0.7
Delay (s)	29.8		40.9					4.8	5.2		7.5	0.7
Level of Service	C		D					A	A		A	A
Approach Delay (s)		37.5			0.0			5.0			5.7	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	✣			↑↑↑	↱		↑↑↑	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0			3.0	3.0		3.0	3.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.91			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1681	1583			5085	1583		5085	1583
Flt Permitted				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1681	1583			5085	1583		5085	1583
Volume (vph)	0	0	0	630	0	240	0	980	670	0	1380	170
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	663	0	253	0	1032	705	0	1453	179
RTOR Reduction (vph)	0	0	0	0	30	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	476	410	0	0	1032	705	0	1453	179
Turn Type				Perm					Free			Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				27.6	27.6			44.4	80.0		44.4	80.0
Effective Green, g (s)				28.6	28.6			45.4	80.0		45.4	80.0
Actuated g/C Ratio				0.36	0.36			0.57	1.00		0.57	1.00
Clearance Time (s)				4.0	4.0			4.0			4.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				601	566			2886	1583		2886	1583
v/s Ratio Prot								0.20			c0.29	
v/s Ratio Perm				c0.28	0.26				0.45			0.11
v/c Ratio				0.79	0.73			0.36	0.45		0.50	0.11
Uniform Delay, d1				23.0	22.3			9.4	0.0		10.5	0.0
Progression Factor				1.00	1.00			1.20	1.00		1.00	1.00
Incremental Delay, d2				7.1	4.6			0.3	0.8		0.6	0.1
Delay (s)				30.1	26.9			11.5	0.8		11.1	0.1
Level of Service				C	C			B	A		B	A
Approach Delay (s)		0.0			28.6			7.2			9.9	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.85	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1441	1504					5085	1583		5085	1583
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1441	1504					5085	1583		5085	1583
Volume (vph)	350	0	740	0	0	0	0	1320	410	0	1760	210
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	368	0	779	0	0	0	0	1389	432	0	1853	221
RTOR Reduction (vph)	0	3	3	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	368	386	387	0	0	0	0	1389	432	0	1853	221
Turn Type	Split		Perm						Free			Free
Protected Phases	4	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	26.8	26.8	26.8					45.2	80.0		45.2	80.0
Effective Green, g (s)	27.8	27.8	27.8					46.2	80.0		46.2	80.0
Actuated g/C Ratio	0.35	0.35	0.35					0.58	1.00		0.58	1.00
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)	584	501	523					2937	1583		2937	1583
v/s Ratio Prot	0.22	c0.27						0.27			c0.36	
v/s Ratio Perm			0.26						0.27			0.14
v/c Ratio	0.63	0.77	0.74					0.47	0.27		0.63	0.14
Uniform Delay, d1	21.8	23.3	22.9					9.8	0.0		11.2	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		0.63	1.00
Incremental Delay, d2	2.2	7.0	5.4					0.5	0.4		0.8	0.1
Delay (s)	24.0	30.3	28.4					10.4	0.4		8.0	0.1
Level of Service	C	C	C					B	A		A	A
Approach Delay (s)		27.6			0.0			8.0			7.1	
Approach LOS		C			A			A			A	

Intersection Summary

HCM Average Control Delay	12.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	71.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3539	1583		3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		3539	1583		3539	1583	1770	5085	1583	3433	5085	1583
Volume (vph)	0	240	190	0	120	70	190	1280	10	100	1240	40
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	253	200	0	126	74	200	1347	11	105	1305	42
RTOR Reduction (vph)	0	0	0	0	0	62	0	0	0	0	0	0
Lane Group Flow (vph)	0	253	200	0	126	12	200	1347	11	105	1305	42
Turn Type			Free			Perm	Prot		Free	Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free			8			Free			Free
Actuated Green, G (s)		10.1	68.3		10.1	10.1	12.6	40.4	68.3	5.8	33.6	68.3
Effective Green, g (s)		11.1	68.3		11.1	11.1	13.6	41.4	68.3	6.8	34.6	68.3
Actuated g/C Ratio		0.16	1.00		0.16	0.16	0.20	0.61	1.00	0.10	0.51	1.00
Clearance Time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		575	1583		575	257	352	3082	1583	342	2576	1583
v/s Ratio Prot		c0.07			0.04		c0.11	0.26		0.03	c0.26	
v/s Ratio Perm			0.13			0.01			0.01			0.03
v/c Ratio		0.44	0.13		0.22	0.05	0.57	0.44	0.01	0.31	0.51	0.03
Uniform Delay, d1		25.8	0.0		24.8	24.1	24.7	7.2	0.0	28.6	11.2	0.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.5	0.2		0.2	0.1	2.1	0.5	0.0	0.5	0.7	0.0
Delay (s)		26.3	0.2		25.0	24.2	26.8	7.7	0.0	29.1	11.9	0.0
Level of Service		C	A		C	C	C	A	A	C	B	A
Approach Delay (s)		14.8			24.7			10.1			12.8	
Approach LOS		B			C			B			B	

Intersection Summary

HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	68.3	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.86	0.91	0.91	0.91		0.97	0.91	0.91		0.91	1.00
Frt	1.00	0.88	0.85	1.00	1.00		1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.97		0.95	1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1391	2882	1610	3278		3433	3390	1441		5085	1583
Flt Permitted	0.95	0.99	1.00	0.95	0.97		0.95	1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1391	2882	1610	3278		3433	3390	1441		5085	1583
Volume (vph)	110	0	430	945	302	25	90	510	560	0	750	140
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	116	0	453	995	318	26	95	537	589	0	789	147
RTOR Reduction (vph)	0	103	51	0	3	0	0	0	0	0	0	109
Lane Group Flow (vph)	93	33	289	498	838	0	95	537	589	0	789	38
Turn Type	custom		custom	Split			Prot		Free			Perm
Protected Phases	4	4	4	8	8		5	2			6	
Permitted Phases	4		5						Free			6
Actuated Green, G (s)	5.0	5.0	9.0	28.0	28.0		4.0	25.0	70.0		17.0	17.0
Effective Green, g (s)	6.0	6.0	11.0	29.0	29.0		5.0	26.0	70.0		18.0	18.0
Actuated g/C Ratio	0.09	0.09	0.16	0.41	0.41		0.07	0.37	1.00		0.26	0.26
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	144	119	453	667	1358		245	1259	1441		1308	407
v/s Ratio Prot	c0.06	0.02	0.05	c0.31	0.26		0.03	0.16			c0.16	
v/s Ratio Perm			0.05						c0.41			0.02
v/c Ratio	0.65	0.27	0.64	0.75	0.62		0.39	0.43	0.41		0.60	0.09
Uniform Delay, d1	31.0	30.0	27.6	17.4	16.1		31.0	16.4	0.0		22.9	19.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	20.2	5.6	6.8	7.5	2.1		4.6	1.1	0.9		2.1	0.5
Delay (s)	51.2	35.6	34.4	24.8	18.2		35.6	17.5	0.9		24.9	20.2
Level of Service	D	D	C	C	B		D	B	A		C	C
Approach Delay (s)		37.4			20.7			10.9			24.2	
Approach LOS		D			C			B			C	

Intersection Summary

HCM Average Control Delay	20.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97		1.00					0.91	0.88	0.97	0.91	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433		1583					5085	2787	3433	5085	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433		1583					5085	2787	3433	5085	
Volume (vph)	170	0	1620	0	0	0	0	990	540	30	2320	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	179	0	1705	0	0	0	0	1042	568	32	2442	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	157	0	0	0
Lane Group Flow (vph)	179	0	1705	0	0	0	0	1042	411	32	2442	0
Turn Type	custom		Free						Perm	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						2			
Actuated Green, G (s)	9.7		90.0					64.2	64.2	4.1	72.3	
Effective Green, g (s)	10.7		90.0					65.2	65.2	5.1	73.3	
Actuated g/C Ratio	0.12		1.00					0.72	0.72	0.06	0.81	
Clearance Time (s)	4.0							4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0							3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	408		1583					3684	2019	195	4141	
v/s Ratio Prot								0.20		0.01	0.48	
v/s Ratio Perm	0.05		c1.08						0.15			
v/c Ratio	0.44		1.08					0.28	0.20	0.16	0.59	
Uniform Delay, d1	36.9		45.0					4.3	4.0	40.4	3.0	
Progression Factor	1.00		1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.8		46.5					0.2	0.2	0.4	0.6	
Delay (s)	37.6		91.5					4.5	4.2	40.8	3.6	
Level of Service	D		F					A	A	D	A	
Approach Delay (s)		86.4			0.0			4.4			4.1	
Approach LOS		F			A			A			A	

Intersection Summary

HCM Average Control Delay	30.2	HCM Level of Service	C
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	56.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.97		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1583	3433		1583			
Volume (vph)	390	1270	0	0	1020	160	120	0	40	0	0	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	411	1337	0	0	1074	168	126	0	42	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	109	0	0	32	0	0	0
Lane Group Flow (vph)	411	1337	0	0	1074	59	126	0	10	0	0	0
Turn Type	Prot					Perm	custom		custom			
Protected Phases	7	4			8							
Permitted Phases						8	2		2			
Actuated Green, G (s)	20.6	50.0			25.4	25.4	17.2		17.2			
Effective Green, g (s)	21.6	51.0			26.4	26.4	18.2		18.2			
Actuated g/C Ratio	0.29	0.68			0.35	0.35	0.24		0.24			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Grp Cap (vph)	508	2400			1242	556	831		383			
v/s Ratio Prot	c0.23	0.38			c0.30							
v/s Ratio Perm						0.04	c0.04		0.01			
v/c Ratio	0.81	0.56			0.86	0.11	0.15		0.03			
Uniform Delay, d1	24.9	6.3			22.7	16.4	22.4		21.7			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	9.2	0.3			6.5	0.1	0.4		0.1			
Delay (s)	34.1	6.5			29.2	16.5	22.8		21.9			
Level of Service	C	A			C	B	C		C			
Approach Delay (s)		13.0			27.5			22.6			0.0	
Approach LOS		B			C			C			A	

Intersection Summary

HCM Average Control Delay	19.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	75.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	30	1140	60	20	1160	70	190	10	90	340	80	30
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	32	1200	63	21	1221	74	200	11	95	358	84	32
RTOR Reduction (vph)	0	0	37	0	0	0	0	0	83	0	0	25
Lane Group Flow (vph)	32	1200	26	21	1221	74	200	11	12	358	84	7
Turn Type	Prot		Perm	Prot		Free	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free			2			6
Actuated Green, G (s)	1.3	28.9	28.9	1.3	28.9	71.6	10.7	8.0	8.0	17.4	14.7	14.7
Effective Green, g (s)	2.3	29.9	29.9	2.3	29.9	71.6	11.7	9.0	9.0	18.4	15.7	15.7
Actuated g/C Ratio	0.03	0.42	0.42	0.03	0.42	1.00	0.16	0.13	0.13	0.26	0.22	0.22
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	57	1478	661	57	1478	1583	289	445	199	455	776	347
v/s Ratio Prot	c0.02	0.34		0.01	c0.34		0.11	0.00		c0.20	c0.02	
v/s Ratio Perm			0.02			0.05			0.01			0.00
v/c Ratio	0.56	0.81	0.04	0.37	0.83	0.05	0.69	0.02	0.06	0.79	0.11	0.02
Uniform Delay, d1	34.2	18.4	12.3	33.9	18.5	0.0	28.3	27.5	27.6	24.8	22.4	21.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	12.0	3.5	0.0	4.0	3.9	0.1	7.0	0.0	0.1	8.7	0.1	0.0
Delay (s)	46.2	21.9	12.4	37.9	22.5	0.1	35.2	27.5	27.7	33.5	22.4	21.9
Level of Service	D	C	B	D	C	A	D	C	C	C	C	C
Approach Delay (s)		22.0			21.4			32.6			30.8	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	24.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	71.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.95		1.00	0.95			0.95	1.00
Frt				1.00	1.00		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.95		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1682		1770	3539			3539	1583
Flt Permitted				0.95	0.95		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1682		1770	3539			3539	1583
Volume (vph)	0	0	0	1180	0	10	120	100	0	0	260	40
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	1242	0	11	126	105	0	0	274	42
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	32
Lane Group Flow (vph)	0	0	0	661	591	0	126	105	0	0	274	10
Turn Type				Perm			Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8								6
Actuated Green, G (s)				29.5	29.5		4.8	22.5			13.7	13.7
Effective Green, g (s)				30.5	30.5		5.8	23.5			14.7	14.7
Actuated g/C Ratio				0.51	0.51		0.10	0.39			0.24	0.24
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				855	855		171	1386			867	388
v/s Ratio Prot							c0.07	0.03			c0.08	
v/s Ratio Perm				c0.39	0.35							0.01
v/c Ratio				0.77	0.69		0.74	0.08			0.32	0.03
Uniform Delay, d1				11.9	11.2		26.4	11.4			18.5	17.2
Progression Factor				1.00	1.00		1.10	0.45			1.00	1.00
Incremental Delay, d2				4.4	2.4		15.2	0.1			1.0	0.1
Delay (s)				16.3	13.6		44.3	5.2			19.5	17.3
Level of Service				B	B		D	A			B	B
Approach Delay (s)		0.0			15.0			26.5			19.2	
Approach LOS		A			B			C			B	

Intersection Summary

HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		1.00					0.95	1.00	1.00	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		1583					3539	1583	1770	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		1583					3539	1583	1770	3539	
Volume (vph)	40	0	390	0	0	0	0	180	180	40	1430	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	0	411	0	0	0	0	189	189	42	1505	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	42	0	411	0	0	0	0	189	189	42	1505	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	3.2		60.0					33.6	60.0	11.2	48.8	
Effective Green, g (s)	4.2		60.0					34.6	60.0	12.2	49.8	
Actuated g/C Ratio	0.07		1.00					0.58	1.00	0.20	0.83	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	124		1583					2041	1583	360	2937	
v/s Ratio Prot								0.05		0.02	c0.43	
v/s Ratio Perm	0.02		c0.26						0.12			
v/c Ratio	0.34		0.26					0.09	0.12	0.12	0.51	
Uniform Delay, d1	26.6		0.0					5.7	0.0	19.5	1.5	
Progression Factor	1.00		1.00					1.00	1.00	1.44	2.44	
Incremental Delay, d2	1.6		0.4					0.1	0.2	0.1	0.5	
Delay (s)	28.2		0.4					5.8	0.2	28.2	4.2	
Level of Service	C		A					A	A	C	A	
Approach Delay (s)		3.0			0.0			3.0			4.8	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	4.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	10	820	400	30	750	90	80	130	10	40	410	10
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	863	421	32	789	95	84	137	11	42	432	11
RTOR Reduction (vph)	0	0	254	0	0	56	0	0	8	0	0	8
Lane Group Flow (vph)	11	863	167	32	789	39	84	137	3	42	432	3
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	0.9	21.5	21.5	1.9	22.5	22.5	4.0	15.3	15.3	2.1	13.4	13.4
Effective Green, g (s)	1.9	22.5	22.5	2.9	23.5	23.5	5.0	16.3	16.3	3.1	14.4	14.4
Actuated g/C Ratio	0.03	0.40	0.40	0.05	0.41	0.41	0.09	0.29	0.29	0.05	0.25	0.25
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	59	1402	627	90	1464	655	156	1016	454	97	897	401
v/s Ratio Prot	0.01	c0.24		c0.02	0.22		c0.05	0.04		0.02	c0.12	
v/s Ratio Perm			0.11			0.02			0.00			0.00
v/c Ratio	0.19	0.62	0.27	0.36	0.54	0.06	0.54	0.13	0.01	0.43	0.48	0.01
Uniform Delay, d1	26.7	13.7	11.6	26.0	12.6	10.0	24.8	15.0	14.5	26.0	18.0	15.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.5	0.8	0.2	2.4	0.4	0.0	3.5	0.1	0.0	3.1	0.4	0.0
Delay (s)	28.2	14.5	11.8	28.5	12.9	10.0	28.3	15.1	14.5	29.1	18.4	15.9
Level of Service	C	B	B	C	B	B	C	B	B	C	B	B
Approach Delay (s)		13.7			13.2			19.9			19.3	
Approach LOS		B			B			B			B	

Intersection Summary

HCM Average Control Delay	15.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	56.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.91	0.95	0.97	0.95			0.86	1.00
Frt				1.00	0.87	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1465	1504	3433	3539			6408	1583
Flt Permitted				0.95	0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1465	1504	3433	3539			6408	1583
Volume (vph)	0	0	0	210	0	430	970	800	0	0	690	500
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	221	0	453	1021	842	0	0	726	526
RTOR Reduction (vph)	0	0	0	0	170	170	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	187	85	62	1021	842	0	0	726	526
Turn Type				Perm		Perm	Prot					Free
Protected Phases					8		5	2			6	
Permitted Phases				8		8						Free
Actuated Green, G (s)				16.4	16.4	16.4	44.5	75.6			27.1	100.0
Effective Green, g (s)				17.4	17.4	17.4	45.5	76.6			28.1	100.0
Actuated g/C Ratio				0.17	0.17	0.17	0.46	0.77			0.28	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				292	255	262	1562	2711			1801	1583
v/s Ratio Prot							c0.30	0.24			c0.11	
v/s Ratio Perm				c0.11	0.06	0.04						0.33
v/c Ratio				0.64	0.33	0.24	0.65	0.31			0.40	0.33
Uniform Delay, d1				38.4	36.2	35.6	21.1	3.6			29.1	0.0
Progression Factor				1.00	1.00	1.00	0.68	0.57			1.00	1.00
Incremental Delay, d2				4.7	0.8	0.5	0.9	0.3			0.7	0.6
Delay (s)				43.1	37.0	36.0	15.2	2.3			29.8	0.6
Level of Service				D	D	D	B	A			C	A
Approach Delay (s)		0.0			38.4			9.4			17.5	
Approach LOS		A			D			A			B	

Intersection Summary

HCM Average Control Delay	17.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		0.88					0.86	1.00	0.97	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		2787					6408	1583	3433	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		2787					6408	1583	3433	3539	
Volume (vph)	250	0	1360	0	0	0	0	1520	580	110	790	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	263	0	1432	0	0	0	0	1600	611	116	832	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	263	0	1432	0	0	0	0	1600	611	116	832	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	19.0		100.0					60.4	100.0	8.6	73.0	
Effective Green, g (s)	20.0		100.0					61.4	100.0	9.6	74.0	
Actuated g/C Ratio	0.20		1.00					0.61	1.00	0.10	0.74	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	354		2787					3935	1583	330	2619	
v/s Ratio Prot								0.25		0.03	0.24	
v/s Ratio Perm	c0.15		c0.51						0.39			
v/c Ratio	0.74		0.51					0.41	0.39	0.35	0.32	
Uniform Delay, d1	37.6		0.0					9.9	0.0	42.3	4.4	
Progression Factor	1.00		1.00					1.00	1.00	0.55	4.23	
Incremental Delay, d2	8.2		0.7					0.3	0.7	0.6	0.3	
Delay (s)	45.8		0.7					10.2	0.7	24.0	19.0	
Level of Service	D		A					B	A	C	B	
Approach Delay (s)		7.7			0.0			7.6			19.6	
Approach LOS		A			A			A			B	

Intersection Summary

HCM Average Control Delay	10.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97	0.91	0.88	0.97	0.86		0.86	0.86	1.00	0.94	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	3433	5085	2787	3433	6268		1522	4780	1583	4990	3520	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	3433	5085	2787	3433	6268		1522	4780	1583	4990	3520	
Volume (vph)	240	1950	910	180	1530	260	320	670	100	770	810	30
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	253	2053	958	189	1611	274	337	705	105	811	853	32
RTOR Reduction (vph)	0	0	565	0	31	0	0	0	75	0	2	0
Lane Group Flow (vph)	253	2053	393	189	1854	0	251	791	30	811	883	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			
Actuated Green, G (s)	9.0	40.0	40.0	5.0	36.0		16.0	16.0	16.0	23.0	23.0	
Effective Green, g (s)	10.0	41.0	41.0	6.0	37.0		17.0	17.0	17.0	24.0	24.0	
Actuated g/C Ratio	0.10	0.41	0.41	0.06	0.37		0.17	0.17	0.17	0.24	0.24	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	343	2085	1143	206	2319		259	813	269	1198	845	
v/s Ratio Prot	c0.07	c0.40		c0.06	0.30		0.16	c0.17		0.16	c0.25	
v/s Ratio Perm			0.14						0.02			
v/c Ratio	0.74	0.98	0.34	0.92	0.80		0.97	0.97	0.11	0.68	1.04	
Uniform Delay, d1	43.7	29.2	20.3	46.8	28.2		41.2	41.3	35.1	34.5	38.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	8.0	16.4	0.8	40.0	2.0		46.8	24.9	0.2	1.5	43.2	
Delay (s)	51.8	45.6	21.1	86.8	30.2		88.0	66.2	35.3	36.0	81.2	
Level of Service	D	D	C	F	C		F	E	D	D	F	
Approach Delay (s)		38.9			35.4			68.1			59.6	
Approach LOS		D			D			E			E	

Intersection Summary

HCM Average Control Delay	46.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	94.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Volume (vph)	260	980	160	340	1490	560	170	1760	310	410	1750	120
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	274	1032	168	358	1568	589	179	1853	326	432	1842	126
RTOR Reduction (vph)	0	0	78	0	0	176	0	0	111	0	0	73
Lane Group Flow (vph)	274	1032	90	358	1568	413	179	1853	215	432	1842	53
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	6.0	23.0	23.0	10.0	27.0	27.0	4.0	31.0	31.0	10.0	37.0	37.0
Effective Green, g (s)	7.0	24.0	24.0	11.0	28.0	28.0	5.0	32.0	32.0	11.0	38.0	38.0
Actuated g/C Ratio	0.08	0.27	0.27	0.12	0.31	0.31	0.06	0.36	0.36	0.12	0.42	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	267	1356	422	420	1582	492	191	1808	563	420	2147	668
v/s Ratio Prot	c0.08	0.20		c0.10	c0.31		0.05	c0.36		0.13	c0.36	
v/s Ratio Perm			0.06			0.26			0.14			0.03
v/c Ratio	1.03	0.76	0.21	0.85	0.99	0.84	0.94	1.02	0.38	1.03	0.86	0.08
Uniform Delay, d1	41.5	30.4	25.7	38.7	30.9	28.9	42.3	29.0	21.6	39.5	23.6	15.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	62.0	2.6	0.3	15.3	20.4	12.2	46.9	27.7	2.0	51.4	4.7	0.2
Delay (s)	103.5	32.9	25.9	54.0	51.3	41.1	89.3	56.7	23.6	90.9	28.3	15.8
Level of Service	F	C	C	D	D	D	F	E	C	F	C	B
Approach Delay (s)		45.3			49.3			54.6			38.9	
Approach LOS		D			D			D			D	

Intersection Summary

HCM Average Control Delay	47.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	95.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3492		1770	1863	1583	1770	3508		1770	3512	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3492		1770	1863	1583	1770	3508		1770	3512	
Volume (vph)	80	410	40	90	440	120	70	1120	70	150	1280	70
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	84	432	42	95	463	126	74	1179	74	158	1347	74
RTOR Reduction (vph)	0	8	0	0	0	91	0	5	0	0	4	0
Lane Group Flow (vph)	84	466	0	95	463	35	74	1248	0	158	1417	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	4.0	21.7		6.3	24.0	24.0	3.2	37.9		9.0	43.7	
Effective Green, g (s)	5.0	22.7		7.3	25.0	25.0	4.2	38.9		10.0	44.7	
Actuated g/C Ratio	0.06	0.25		0.08	0.28	0.28	0.05	0.43		0.11	0.49	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	97	872		142	512	435	82	1501		195	1727	
v/s Ratio Prot	c0.05	0.13		0.05	c0.25		0.04	0.36		c0.09	c0.40	
v/s Ratio Perm						0.02						
v/c Ratio	0.87	0.53		0.67	0.90	0.08	0.90	0.83		0.81	0.82	
Uniform Delay, d1	42.6	29.5		40.6	31.8	24.4	43.1	23.1		39.5	19.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	50.6	0.6		11.3	19.3	0.1	67.3	5.5		21.8	4.5	
Delay (s)	93.2	30.2		52.0	51.1	24.5	110.5	28.6		61.4	24.2	
Level of Service	F	C		D	D	C	F	C		E	C	
Approach Delay (s)		39.6			46.3			33.2			27.9	
Approach LOS		D			D			C			C	

Intersection Summary

HCM Average Control Delay	34.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	90.9	Sum of lost time (s)	6.0
Intersection Capacity Utilization	82.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Util. Factor	1.00	1.00	1.00			0.86	0.86		1.00	0.95		
Frt	1.00	1.00	0.85			1.00	0.98		1.00	0.98		
Flt Protected	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1583			1522	4679		1770	3465		
Flt Permitted	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1863	1583			1522	4679		1770	3465		
Volume (vph)	105	460	220	90	10	290	680	140	270	615	100	40
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	124	541	259	106	12	341	800	165	318	724	118	47
RTOR Reduction (vph)	0	0	11	0	0	0	19	0	0	0	0	0
Lane Group Flow (vph)	124	541	354	0	0	317	982	0	318	842	0	0
Turn Type	Split		Perm		Split	Split			Split			Split
Protected Phases	4	4			8	8	8		2	2		6
Permitted Phases			4									
Actuated Green, G (s)	24.0	24.0	24.0			20.0	20.0		23.0	23.0		
Effective Green, g (s)	25.0	25.0	25.0			21.0	21.0		24.0	24.0		
Actuated g/C Ratio	0.18	0.18	0.18			0.15	0.15		0.17	0.17		
Clearance Time (s)	4.0	4.0	4.0			4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	316	333	283			228	702		303	594		
v/s Ratio Prot	0.07	c0.29				0.21	c0.21		0.18	c0.24		
v/s Ratio Perm			0.22									
v/c Ratio	0.39	1.62	1.25			1.39	1.40		1.05	1.42		
Uniform Delay, d1	50.8	57.5	57.5			59.5	59.5		58.0	58.0		
Progression Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.8	294.5	139.2			200.3	188.3		65.3	197.7		
Delay (s)	51.6	352.0	196.7			259.8	247.8		123.3	255.7		
Level of Service	D	F	F			F	F		F	F		
Approach Delay (s)		260.8					250.7			219.4		
Approach LOS		F					F			F		

Intersection Summary

HCM Average Control Delay	258.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.59		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	133.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.86	0.86		1.00	1.00	0.88	
Frt	1.00	0.98		1.00	1.00	0.85	
Flt Protected	0.95	0.99		0.95	0.95	1.00	
Satd. Flow (prot)	1522	4689		1770	1770	2787	
Flt Permitted	0.95	0.99		0.95	0.95	1.00	
Satd. Flow (perm)	1522	4689		1770	1770	2787	
Volume (vph)	390	620	90	80	700	490	10
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	459	729	106	94	824	576	12
RTOR Reduction (vph)	0	9	0	0	0	1	0
Lane Group Flow (vph)	324	1008	0	94	824	587	0
Turn Type		Prot		Prot	Prot		
Protected Phases	6	6		1	1		
Permitted Phases						1	
Actuated Green, G (s)	20.0	20.0		33.0	33.0	33.0	
Effective Green, g (s)	21.0	21.0		34.0	34.0	34.0	
Actuated g/C Ratio	0.15	0.15		0.24	0.24	0.24	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	228	703		430	430	677	
v/s Ratio Prot	0.21	c0.21		0.05	c0.47		
v/s Ratio Perm						0.21	
v/c Ratio	1.42	1.43		0.22	1.92	0.87	
Uniform Delay, d1	59.5	59.5		42.4	53.0	50.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2	213.2	203.1		0.3	420.9	11.3	
Delay (s)	272.7	262.6		42.6	473.9	62.2	
Level of Service	F	F		D	F	E	
Approach Delay (s)		265.1			286.2		
Approach LOS		F			F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		5085	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		5085	1583
Volume (vph)	0	0	0	990	0	170	0	1320	1000	0	1630	400
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	1042	0	179	0	1389	1053	0	1716	421
RTOR Reduction (vph)	0	0	0	0	0	12	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1042	0	167	0	1389	1053	0	1716	421
Turn Type				Prot		custom			Free			Free
Protected Phases				3				2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				33.6		33.6		48.4	90.0		48.4	90.0
Effective Green, g (s)				34.6		34.6		49.4	90.0		49.4	90.0
Actuated g/C Ratio				0.38		0.38		0.55	1.00		0.55	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1320		609		2791	1583		2791	1583
v/s Ratio Prot				c0.30				0.27			0.34	
v/s Ratio Perm						0.11			c0.67			0.27
v/c Ratio				0.79		0.27		0.50	0.67		0.61	0.27
Uniform Delay, d1				24.5		19.1		12.6	0.0		13.8	0.0
Progression Factor				1.00		1.00		0.85	1.00		1.00	1.00
Incremental Delay, d2				3.2		0.2		0.5	1.9		1.0	0.4
Delay (s)				27.7		19.3		11.2	1.9		14.8	0.4
Level of Service				C		B		B	A		B	A
Approach Delay (s)		0.0			26.5			7.2			12.0	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	13.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1583					5085	1583		5085	1583
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1583					5085	1583		5085	1583
Volume (vph)	150	0	100	0	0	0	0	2250	1220	0	1720	840
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	158	0	105	0	0	0	0	2368	1284	0	1811	884
RTOR Reduction (vph)	0	0	21	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	158	0	84	0	0	0	0	2368	1284	0	1811	884
Turn Type	Prot		custom						Free			Free
Protected Phases	7							2			6	
Permitted Phases			7						Free			Free
Actuated Green, G (s)	10.0		10.0					72.0	90.0		72.0	90.0
Effective Green, g (s)	11.0		11.0					73.0	90.0		73.0	90.0
Actuated g/C Ratio	0.12		0.12					0.81	1.00		0.81	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	420		193					4125	1583		4125	1583
v/s Ratio Prot	0.05							0.47			0.36	
v/s Ratio Perm			0.05						c0.81			0.56
v/c Ratio	0.38		0.43					0.57	0.81		0.44	0.56
Uniform Delay, d1	36.3		36.6					3.0	0.0		2.5	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.23	1.00
Incremental Delay, d2	0.6		1.6					0.6	4.6		0.2	1.0
Delay (s)	36.9		38.2					3.6	4.6		3.3	1.0
Level of Service	D		D					A	A		A	A
Approach Delay (s)		37.4			0.0			4.0			2.6	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	4.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	54.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0			3.0	3.0		3.0	3.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.92			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1681	1592			5085	1583		5085	1583
Flt Permitted				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1681	1592			5085	1583		5085	1583
Volume (vph)	0	0	0	870	0	290	0	1850	640	0	1490	410
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	916	0	305	0	1947	674	0	1568	432
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	644	576	0	0	1947	674	0	1568	432
Turn Type				Perm					Free			Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				34.3	34.3			37.7	80.0		37.7	80.0
Effective Green, g (s)				35.3	35.3			38.7	80.0		38.7	80.0
Actuated g/C Ratio				0.44	0.44			0.48	1.00		0.48	1.00
Clearance Time (s)				4.0	4.0			4.0			4.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				742	702			2460	1583		2460	1583
v/s Ratio Prot								c0.38			0.31	
v/s Ratio Perm				c0.38	0.36				0.43			0.27
v/c Ratio				0.87	0.82			0.79	0.43		0.64	0.27
Uniform Delay, d1				20.2	19.6			17.3	0.0		15.4	0.0
Progression Factor				1.00	1.00			0.68	1.00		1.00	1.00
Incremental Delay, d2				10.5	7.6			2.0	0.6		1.3	0.4
Delay (s)				30.8	27.2			13.6	0.6		16.7	0.4
Level of Service				C	C			B	A		B	A
Approach Delay (s)		0.0			29.1			10.3			13.2	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	75.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.87	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	0.99	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1460	1504					5085	1583		5085	1583
Flt Permitted	0.95	0.99	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1460	1504					5085	1583		5085	1583
Volume (vph)	300	0	510	0	0	0	0	2180	470	0	2040	230
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	316	0	537	0	0	0	0	2295	495	0	2147	242
RTOR Reduction (vph)	0	4	4	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	285	295	265	0	0	0	0	2295	495	0	2147	242
Turn Type	Split		Perm						Free			Free
Protected Phases	4	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	21.3	21.3	21.3					50.7	80.0		50.7	80.0
Effective Green, g (s)	22.3	22.3	22.3					51.7	80.0		51.7	80.0
Actuated g/C Ratio	0.28	0.28	0.28					0.65	1.00		0.65	1.00
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)	469	407	419					3286	1583		3286	1583
v/s Ratio Prot	0.17	c0.20						c0.45			0.42	
v/s Ratio Perm			0.18						0.31			0.15
v/c Ratio	0.61	0.73	0.63					0.70	0.31		0.65	0.15
Uniform Delay, d1	25.1	26.1	25.3					9.1	0.0		8.7	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		1.45	1.00
Incremental Delay, d2	2.2	6.3	3.1					1.3	0.5		0.7	0.1
Delay (s)	27.3	32.4	28.4					10.4	0.5		13.3	0.1
Level of Service	C	C	C					B	A		B	A
Approach Delay (s)		29.4			0.0			8.6			12.0	
Approach LOS		C			A			A			B	

Intersection Summary

HCM Average Control Delay	12.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	67.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.91		0.97	0.91	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		3539	1583		3539	1583	1770	5085		3433	5085	1583
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		3539	1583		3539	1583	1770	5085		3433	5085	1583
Volume (vph)	0	150	60	0	450	100	390	1250	0	100	1380	60
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	158	63	0	474	105	411	1316	0	105	1453	63
RTOR Reduction (vph)	0	0	0	0	0	84	0	0	0	0	0	0
Lane Group Flow (vph)	0	158	63	0	474	21	411	1316	0	105	1453	63
Turn Type			Free			Perm	Prot		Free	Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free			8			Free			Free
Actuated Green, G (s)		14.3	77.7		14.3	14.3	21.1	48.3		3.1	30.3	77.7
Effective Green, g (s)		15.3	77.7		15.3	15.3	22.1	49.3		4.1	31.3	77.7
Actuated g/C Ratio		0.20	1.00		0.20	0.20	0.28	0.63		0.05	0.40	1.00
Clearance Time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		697	1583		697	312	503	3226		181	2048	1583
v/s Ratio Prot		0.04			c0.13		c0.23	0.26		0.03	c0.29	
v/s Ratio Perm			0.04			0.01						0.04
v/c Ratio		0.23	0.04		0.68	0.07	0.82	0.41		0.58	0.71	0.04
Uniform Delay, d1		26.2	0.0		28.9	25.4	25.9	7.0		36.0	19.4	0.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		0.2	0.0		2.7	0.1	9.9	0.4		4.7	2.1	0.0
Delay (s)		26.4	0.0		31.7	25.5	35.8	7.4		40.6	21.5	0.0
Level of Service		C	A		C	C	D	A		D	C	A
Approach Delay (s)		18.9			30.5			14.2			21.9	
Approach LOS		B			C			B			C	

Intersection Summary

HCM Average Control Delay	19.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	77.7	Sum of lost time (s)	9.0
Intersection Capacity Utilization	70.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.86	0.91	0.91	0.91		0.97	0.91	0.91		0.91	1.00
Frt	1.00	0.88	0.85	1.00	0.99		1.00	0.93	0.85		1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.98		0.95	1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1393	2882	1610	3293		3433	3140	1441		5085	1583
Flt Permitted	0.95	0.99	1.00	0.95	0.98		0.95	1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1393	2882	1610	3293		3433	3140	1441		5085	1583
Volume (vph)	280	0	870	885	572	72	200	470	1490	0	880	370
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	295	0	916	932	602	76	211	495	1568	0	926	389
RTOR Reduction (vph)	0	96	35	0	6	0	0	193	0	0	0	303
Lane Group Flow (vph)	238	212	630	523	1081	0	211	780	1090	0	926	86
Turn Type	custom		custom	Split			Prot		Free			Perm
Protected Phases	4	4	4	8	8		5	2			6	
Permitted Phases	4		5						Free			6
Actuated Green, G (s)	17.0	17.0	22.0	33.0	33.0		5.0	28.0	90.0		19.0	19.0
Effective Green, g (s)	18.0	18.0	24.0	34.0	34.0		6.0	29.0	90.0		20.0	20.0
Actuated g/C Ratio	0.20	0.20	0.27	0.38	0.38		0.07	0.32	1.00		0.22	0.22
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	336	279	865	608	1244		229	1012	1441		1130	352
v/s Ratio Prot	0.14	0.15	0.15	0.32	c0.33		0.06	0.25			0.18	
v/s Ratio Perm			0.07						c0.76			0.05
v/c Ratio	0.71	0.76	0.73	0.86	0.87		0.92	0.77	0.76		0.82	0.25
Uniform Delay, d1	33.6	34.0	30.0	25.8	25.9		41.8	27.5	0.0		33.3	28.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	11.9	17.6	5.3	14.8	8.4		42.1	5.7	3.8		6.7	1.7
Delay (s)	45.5	51.5	35.4	40.6	34.4		83.8	33.2	3.8		40.0	30.5
Level of Service	D	D	D	D	C		F	C	A		D	C
Approach Delay (s)		41.5			36.4			23.8			37.1	
Approach LOS		D			D			C			D	

Intersection Summary

HCM Average Control Delay	33.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97		1.00					0.91	0.88	0.97	0.91	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433		1583					5085	2787	3433	5085	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433		1583					5085	2787	3433	5085	
Volume (vph)	240	0	600	0	0	0	0	1920	590	310	1890	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	253	0	632	0	0	0	0	2021	621	326	1989	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	249	0	0	0
Lane Group Flow (vph)	253	0	632	0	0	0	0	2021	372	326	1989	0
Turn Type	custom		Free						Perm	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						2			
Actuated Green, G (s)	11.7		90.0					52.9	52.9	13.4	70.3	
Effective Green, g (s)	12.7		90.0					53.9	53.9	14.4	71.3	
Actuated g/C Ratio	0.14		1.00					0.60	0.60	0.16	0.79	
Clearance Time (s)	4.0							4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0							3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	484		1583					3045	1669	549	4028	
v/s Ratio Prot								c0.40		c0.09	0.39	
v/s Ratio Perm	c0.07		0.40						0.13			
v/c Ratio	0.52		0.40					0.66	0.22	0.59	0.49	
Uniform Delay, d1	35.8		0.0					12.0	8.4	35.1	3.2	
Progression Factor	1.00		1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.0		0.8					1.2	0.3	1.7	0.4	
Delay (s)	36.9		0.8					13.2	8.7	36.8	3.6	
Level of Service	D		A					B	A	D	A	
Approach Delay (s)		11.1			0.0			12.1			8.3	
Approach LOS		B			A			B			A	

Intersection Summary

HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	62.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.97		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1583	3433		1583			
Volume (vph)	210	1550	0	0	1730	250	280	0	40	0	0	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	221	1632	0	0	1821	263	295	0	42	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	111	0	0	33	0	0	0
Lane Group Flow (vph)	221	1632	0	0	1821	152	295	0	9	0	0	0
Turn Type	Prot					Perm	custom		custom			
Protected Phases	7	4			8							
Permitted Phases						8	2		2			
Actuated Green, G (s)	9.0	55.0			42.0	42.0	17.0		17.0			
Effective Green, g (s)	10.0	56.0			43.0	43.0	18.0		18.0			
Actuated g/C Ratio	0.12	0.70			0.54	0.54	0.22		0.22			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Grp Cap (vph)	221	2477			1902	851	772		356			
v/s Ratio Prot	c0.12	0.46			c0.51							
v/s Ratio Perm						0.10	c0.09		0.01			
v/c Ratio	1.00	0.66			0.96	0.18	0.38		0.03			
Uniform Delay, d1	35.0	6.7			17.6	9.5	26.3		24.2			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	60.5	0.6			12.0	0.1	1.4		0.1			
Delay (s)	95.5	7.3			29.7	9.6	27.7		24.3			
Level of Service	F	A			C	A	C		C			
Approach Delay (s)		17.8			27.1			27.3			0.0	
Approach LOS		B			C			C			A	

Intersection Summary

HCM Average Control Delay	23.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	50	1340	40	30	1360	580	330	10	50	360	50	50
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	53	1411	42	32	1432	611	347	11	53	379	53	53
RTOR Reduction (vph)	0	0	22	0	0	0	0	0	48	0	0	47
Lane Group Flow (vph)	53	1411	20	32	1432	611	347	11	5	379	53	6
Turn Type	Prot		Perm	Prot		Free	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free			2			6
Actuated Green, G (s)	2.3	35.7	35.7	1.5	34.9	78.5	17.5	6.4	6.4	18.9	7.8	7.8
Effective Green, g (s)	3.3	36.7	36.7	2.5	35.9	78.5	18.5	7.4	7.4	19.9	8.8	8.8
Actuated g/C Ratio	0.04	0.47	0.47	0.03	0.46	1.00	0.24	0.09	0.09	0.25	0.11	0.11
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	74	1655	740	56	1618	1583	417	334	149	449	397	177
v/s Ratio Prot	c0.03	0.40		0.02	c0.40		0.20	0.00		c0.21	0.01	
v/s Ratio Perm			0.01			c0.39			0.00			0.00
v/c Ratio	0.72	0.85	0.03	0.57	0.89	0.39	0.83	0.03	0.03	0.84	0.13	0.03
Uniform Delay, d1	37.1	18.5	11.3	37.5	19.4	0.0	28.5	32.3	32.3	27.8	31.4	31.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	27.9	4.5	0.0	13.3	6.2	0.7	13.3	0.0	0.1	13.5	0.2	0.1
Delay (s)	65.0	23.0	11.3	50.8	25.6	0.7	41.8	32.3	32.4	41.4	31.6	31.1
Level of Service	E	C	B	D	C	A	D	C	C	D	C	C
Approach Delay (s)		24.1			18.7			40.3			39.2	
Approach LOS		C			B			D			D	

Intersection Summary

HCM Average Control Delay	24.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	78.5	Sum of lost time (s)	9.0
Intersection Capacity Utilization	74.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.95		1.00	0.95			0.95	1.00
Frt				1.00	0.95		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.97		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1627		1770	3539			3539	1583
Flt Permitted				0.95	0.97		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1627		1770	3539			3539	1583
Volume (vph)	0	0	0	320	10	70	470	1340	0	0	180	70
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	337	11	74	495	1411	0	0	189	74
RTOR Reduction (vph)	0	0	0	0	36	0	0	0	0	0	0	53
Lane Group Flow (vph)	0	0	0	213	173	0	495	1411	0	0	189	21
Turn Type				Perm			Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8								6
Actuated Green, G (s)				12.1	12.1		20.1	39.9			15.8	15.8
Effective Green, g (s)				13.1	13.1		21.1	40.9			16.8	16.8
Actuated g/C Ratio				0.22	0.22		0.35	0.68			0.28	0.28
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				367	355		622	2412			991	443
v/s Ratio Prot							c0.28	c0.40			0.05	
v/s Ratio Perm				c0.13	0.11							0.01
v/c Ratio				0.58	0.49		0.80	0.58			0.19	0.05
Uniform Delay, d1				21.0	20.5		17.5	5.1			16.4	15.8
Progression Factor				1.00	1.00		1.26	1.18			1.00	1.00
Incremental Delay, d2				2.3	1.1		5.3	0.8			0.4	0.2
Delay (s)				23.3	21.6		27.4	6.8			16.9	16.0
Level of Service				C	C		C	A			B	B
Approach Delay (s)		0.0			22.5			12.1			16.6	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	14.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	66.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		1.00					0.95	1.00	1.00	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		1583					3539	1583	1770	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		1583					3539	1583	1770	3539	
Volume (vph)	10	0	140	0	0	0	0	1790	1090	60	420	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	0	147	0	0	0	0	1884	1147	63	442	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	11	0	147	0	0	0	0	1884	1147	63	442	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	1.4		60.0					41.0	60.0	5.6	50.6	
Effective Green, g (s)	2.4		60.0					42.0	60.0	6.6	51.6	
Actuated g/C Ratio	0.04		1.00					0.70	1.00	0.11	0.86	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	71		1583					2477	1583	195	3044	
v/s Ratio Prot								0.53		0.04	0.12	
v/s Ratio Perm	0.01		0.09						c0.72			
v/c Ratio	0.15		0.09					0.76	0.72	0.32	0.15	
Uniform Delay, d1	27.8		0.0					5.8	0.0	24.6	0.7	
Progression Factor	1.00		1.00					1.00	1.00	0.64	1.38	
Incremental Delay, d2	1.0		0.1					2.3	2.9	0.9	0.1	
Delay (s)	28.8		0.1					8.0	2.9	16.6	1.0	
Level of Service	C		A					A	A	B	A	
Approach Delay (s)		2.1			0.0			6.1			3.0	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	5.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	66.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	
Volume (vph)	10	630	380	10	1080	80	350	640	10	80	180	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	663	400	11	1137	84	368	674	11	84	189	0
RTOR Reduction (vph)	0	0	248	0	0	52	0	0	7	0	0	0
Lane Group Flow (vph)	11	663	152	11	1137	32	368	674	4	84	189	0
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	0.7	24.8	24.8	0.7	24.8	24.8	16.6	22.0	22.0	4.6	10.0	
Effective Green, g (s)	1.7	25.8	25.8	1.7	25.8	25.8	17.6	23.0	23.0	5.6	11.0	
Actuated g/C Ratio	0.02	0.38	0.38	0.02	0.38	0.38	0.26	0.34	0.34	0.08	0.16	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	44	1341	600	44	1341	600	457	1195	535	146	572	
v/s Ratio Prot	c0.01	0.19		0.01	c0.32		c0.21	c0.19		0.05	0.05	
v/s Ratio Perm			0.10			0.02			0.00			
v/c Ratio	0.25	0.49	0.25	0.25	0.85	0.05	0.81	0.56	0.01	0.58	0.33	
Uniform Delay, d1	32.6	16.2	14.5	32.6	19.4	13.4	23.6	18.4	15.0	30.1	25.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.0	0.3	0.2	3.0	5.2	0.0	9.9	0.6	0.0	5.4	0.3	
Delay (s)	35.5	16.5	14.8	35.5	24.5	13.4	33.6	19.1	15.0	35.5	25.6	
Level of Service	D	B	B	D	C	B	C	B	B	D	C	
Approach Delay (s)		16.0			23.9			24.1			28.7	
Approach LOS		B			C			C			C	

Intersection Summary

HCM Average Control Delay	22.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	68.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	64.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

20. Ventura & Gonzales

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	150	.05	280	.09*
NBT	3	4800	1090	.23*	1190	.25
NBR	1	1600	400	.25	360	.23
SBL	2	3200	160	.05*	300	.09
SBT	3	4800	1030	.21	1540	.32*
SBR	1	1600	160	.10	100	.06
EBL	2	3200	280	.09*	270	.08
EBT	2	3200	280	.09	460	.14*
EBR	1	1600	110	.07	140	.09
WBL	2	3200	270	.08	750	.23*
WBT	2	3200	330	.10*	560	.18
WBR	1	1600	90	.06	130	.08
TOTAL CAPACITY UTILIZATION				**.47**		**.78**

24. Ventura & Wooley

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	230	.14	250	.16
NBT	3	4800	850	.19*	1090	.25*
NBR	0	0	70		100	
SBL	2	3200	500	.16*	560	.18*
SBT	3	4800	740	.16	1080	.25
SBR	0	0	50		130	
EBL	2	3200	200	.06	240	.08*
EBT	3	4800	690	.18*	850	.19
EBR	0	0	160		50	
WBL	2	3200	170	.05*	400	.13
WBT	3	4800	500	.13	1130	.27*
WBR	0	0	120		180	
TOTAL CAPACITY UTILIZATION				**.58**		**.78**

45. Oxnard & Vineyard

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	80	.03	160	.05
NBT	3	4800	1180	.25*	1930	.40*
NBR	2	3200	790	.25	860	.27
SBL	2	3200	100	.03*	180	.06*
SBT	4	6400	1180	.19	1520	.28
SBR	0	0	60		280	
EBL	1.5		260	{.15}*	310	{.15}*
EBT	2.5	6400	720	.15	620	.15
EBR	1	1600	140	.09	100	.06
WBL	3	4800	410	.09	770	.16
WBT	2	3200	350	.11*	810	.26*
WBR	0	0	10		30	
TOTAL CAPACITY UTILIZATION				**.54**		**.87**

46. Oxnard & Gonzales

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	120	.04*	180	.06
NBT	3	4800	1150	.24	1660	.35*
NBR	1	1600	290	.18	310	.19
SBL	2	3200	370	.12	410	.13*
SBT	3	4800	1520	.32*	1800	.38
SBR	1	1600	60	.04	120	.08
EBL	2	3200	290	.09	270	.08*
EBT	3	4800	900	.19*	860	.18
EBR	1	1600	60	.04	150	.09
WBL	2	3200	260	.08*	320	.10
WBT	3	4800	780	.16	1340	.28*
WBR	1	1600	390	.24	570	.36
TOTAL CAPACITY UTILIZATION				**.63**		**.84**

49. Oxnard & 5th St

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03	70	.04*
NBT	2	3200	890	.30*	1140	.38
NBR	0	0	70		80	
SBL	1	1600	160	.10*	140	.09
SBT	2	3200	1110	.35	1320	.43*
SBR	0	0	10		70	
EBL	1	1600	40	.03	70	.04*
EBT	2	3200	440	.14*	390	.13
EBR	0	0	10		30	
WBL	1	1600	40	.03*	80	.05
WBT	1	1600	200	.13	390	.24*
WBR	1	1600	70	.04	100	.06

TOTAL CAPACITY UTILIZATION .57 .75

61. Rose & Auto Center

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	110	.07*	200	.13*
NBT	2	3200	620	.19	700	.22
NBR	1	1600	380	.24	500	.31
SBL	1	1600	220	.14	180	.11
SBT	2	3200	1160	.38*	630	.20*
SBR	0	0	40		20	
EBL	1	1600	40	.03	40	.03
EBT	1	1600	140	.09*	200	.13*
EBR	1	1600	190	.12	210	.13
WBL	2.5		170		760	
WBT	0.5	4800	50	.05*	210	.20*
WBR	1	1600	60	.04	230	.14

Note: Assumes E/W Split Phasing
Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION .59 .66

65. Rose & Gonzales

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	280	.09*	400	.13*
NBT	3	4800	1010	.21	1320	.28
NBR	1	1600	510	.32	410	.26
SBL	2	3200	230	.07	250	.08
SBT	4	6400	1250	.20*	1630	.25*
SBR	1	1600	310	.19	550	.34
EBL	2	3200	360	.11	470	.15*
EBT	3	4800	930	.19*	590	.12
EBR	1	1600	370	.23	310	.19
WBL	2	3200	150	.05*	310	.10
WBT	4	6400	410	.06	1460	.23*
WBR	1	1600	200	.13	500	.31
Right Turn Adjustment			NBR	.06*		

TOTAL CAPACITY UTILIZATION .59 .76

66. Rose & Camino del Sol

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	170	.05*	220	.07*
NBT	3	4800	1360	.30	1620	.35
NBR	0	0	70		60	
SBL	2	3200	230	.07	100	.03
SBT	3	4800	1790	.40*	1680	.38*
SBR	0	0	130		160	
EBL	2	3200	200	.06	190	.06*
EBT	3	4800	400	.13*	220	.06
EBR	0	0	210	.13	90	
WBL	2	3200	170	.05*	350	.11
WBT	2	3200	120	.04	490	.15*
WBR	1	1600	130	.08	330	.21

TOTAL CAPACITY UTILIZATION .63 .66

68. Rose & 5th

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	10	.01*	80	.05*
NBT	3	4800	1310	.27	1690	.35
NBR	1	1600	280	.18	130	.08
SBL	1	1600	20	.01	10	.01
SBT	3	4800	1830	.38*	1780	.37*
SBR	1	1600	180	.11	210	.13
EBL	2	3200	190	.06	250	.08
EBT	2	3200	670	.21*	620	.19*
EBR	1	1600	60	.04	110	.07
WBL	2	3200	180	.06*	400	.13*
WBT	2	3200	230	.07	720	.23
WBR	1	1600	10	.01	150	.09

TOTAL CAPACITY UTILIZATION .66 .74

69. Rose & Wooley

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	60	.04*	90	.06*
NBT	3	4800	1250	.26	1300	.27
NBR	1	1600	100	.06	60	.04
SBL	1	1600	30	.02	30	.02
SBT	3	4800	1620	.34*	1700	.35*
SBR	f		390		440	
EBL	2	3200	370	.12	480	.15*
EBT	2	3200	530	.18*	340	.13
EBR	0	0	60		70	
WBL	2	3200	80	.03*	160	.05
WBT	2	3200	140	.05	580	.19*
WBR	0	0	10		30	

TOTAL CAPACITY UTILIZATION .59 .75

71. Rose & Oxnard

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	200	.13*	390	.24*
NBT	3	4800	1230	.26	1260	.26
NBR	f		10		0	
SBL	2	3200	70	.02	70	.02
SBT	3	4800	1290	.27*	1350	.28*
SBR	f		40		60	
EBL	0	0	0		0	
EBT	2	3200	230	.07*	140	.04
EBR	f		190		60	
WBL	0	0	0		0	
WBT	2	3200	90	.03	430	.13*
WBR	1	1600	50	.03	90	.06

TOTAL CAPACITY UTILIZATION .47 .65

72. Rose & Channel Islands

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	290	.09*	440	.14*
NBT	3	4800	1080	.23	1410	.29
NBR	1	1600	270	.17	190	.12
SBL	1	1600	70	.04	140	.09
SBT	3	4800	1590	.33*	1340	.28*
SBR	1	1600	190	.12	290	.18
EBL	2	3200	440	.14	250	.08
EBT	3	4800	510	.16*	450	.14*
EBR	0	0	250		220	
WBL	2	3200	330	.10*	390	.12*
WBT	3	4800	440	.09	780	.16
WBR	0	0	10		10	

TOTAL CAPACITY UTILIZATION .68 .68

73. Rose & Bard

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	60	.04*	100	.06
NBT	3	4800	1370	.29	1610	.34*
NBR	0	0	10		30	
SBL	1	1600	130	.08	140	.09*
SBT	3	4800	1810	.41*	1090	.32
SBR	0	0	160		450	
EBL	1	1600	250	.16*	170	.11*
EBT	2	3200	170	.07	240	.11
EBR	0	0	60		100	
WBL	1	1600	30	.02	20	.01
WBT	2	3200	140	.09*	400	.18*
WBR	0	0	170	.11	180	
TOTAL CAPACITY UTILIZATION				**.70**		**.72**

74. Rose & Pleasant Valley

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	90	.03*	180	.06
NBT	3	4800	1000	.24	1370	.36*
NBR	0	0	160		380	
SBL	2	3200	240	.08	120	.04*
SBT	3	4800	1420	.38*	840	.25
SBR	0	0	380		340	
EBL	2	3200	310	.10	250	.08*
EBT	3	4800	750	.16*	680	.14
EBR	1	1600	140	.09	130	.08
WBL	2	3200	400	.13*	270	.08
WBT	3	4800	730	.18	920	.20*
WBR	0	0	140		60	
TOTAL CAPACITY UTILIZATION				**.70**		**.68**

77. Dupont & Channel Islands

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	80	.05*	80	.05*
SBT	0	0	0		0	
SBR	1	1600	180	.11	150	.09
EBL	1	1600	20	.01	70	.04*
EBT	2	3200	770	.24*	740	.23
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	650	.20	960	.30*
WBR	1	1600	50	.03	160	.10
Right Turn Adjustment			SBR	.03*	SBR	.01*
TOTAL CAPACITY UTILIZATION				**.32**		**.40**

78. Bard & Pleasant Valley

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	10	.01	10	.01
NBT	1	1600	10	.02*	10	.01*
NBR	0	0	20		10	
SBL	1	1600	180	.11*	300	.19*
SBT	1	1600	10	.01	10	.01
SBR	1	1600	40	.03	30	.02
EBL	1	1600	10	.01*	50	.03*
EBT	2	3200	890	.28	1270	.40
EBR	1	1600	10	.01	10	.01
WBL	1	1600	30	.02	10	.01
WBT	2	3200	1110	.46*	1010	.43*
WBR	0	0	360		370	
TOTAL CAPACITY UTILIZATION				**.60**		**.66**

81. Rice & Gonzales

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	310	.10*	450	.14
NBT	2	3200	1730	.54	2300	.72*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	2350	.49*	2020	.42
SBR	1	1600	780	.49	550	.34
EBL	2	3200	260	.08*	250	.08*
EBT	0	0	0		0	
EBR	1	1600	230	.14	400	.25
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				**.67**		**.80**

82. Rice & Camino Del Sol

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	110	.03*	60	.02
NBT	3	4800	1450	.30	2090	.44*
NBR	1	1600	10	.01	60	.04
SBL	2	3200	160	.05	480	.15*
SBT	3	4800	1670	.35*	1950	.41
SBR	1	1600	680	.43	310	.19
EBL	2	3200	350	.11*	500	.16*
EBT	3	4800	250	.05	650	.14
EBR	1	1600	20	.01	50	.03
WBL	2	3200	10	.00	10	.00
WBT	3	4800	200	.04*	140	.03*
WBR	1	1600	260	.16	50	.03
Right Turn Adjustment			WBR	.06*		
TOTAL CAPACITY UTILIZATION				**.59**		**.78**

85. Rice & Wooley

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03*	90	.06*
NBT	3	4800	1320	.28	1920	.40
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1450	.30*	1930	.40*
SBR	1	1600	310	.19	560	.35
EBL	2	3200	780	.24*	690	.22*
EBT	0	0	0		0	
EBR	1	1600	90	.06	90	.06
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				**.57**		**.68**

86. Rice & Channel Islands

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03*	210	.13
NBT	2	3200	700	.22	1440	.45*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1060	.33*	810	.25
SBR	f		390		1050	
EBL	2	3200	730	.23*	480	.15*
EBT	0	0	0		0	
EBR	1	1600	130	.08	70	.04
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				**.59**		**.60**

87. SR-1/Rice NB & Pleasant Vly

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	100	.03*	280	.09*
NBT	0	0	0		0	
NBR	1	1600	20	.01	40	.03
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	360	.23*	220	.14*
EBT	2	3200	1310	.41	1470	.46
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	1000	.31*	1740	.54*
WBR	1	1600	150	.09	240	.15

TOTAL CAPACITY UTILIZATION .57 .77

88. Oxnard & Pleasant Valley

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	170	.11	280	.18*
NBT	2	3200	10	.00*	10	.00
NBR	1	1600	80	.05	40	.03
SBL	1	1600	320	.20*	300	.19
SBT	2	3200	70	.02	40	.01*
SBR	1	1600	30	.02	40	.03
EBL	1	1600	40	.03*	40	.03*
EBT	2	3200	1180	.37	1340	.42
EBR	1	1600	50	.03	20	.01
WBL	1	1600	20	.01	30	.02
WBT	2	3200	1160	.36*	1420	.44*
WBR	f		40		520	
Right Turn Adjustment			NBR	.03*		

TOTAL CAPACITY UTILIZATION .62 .66

89. Rice & Hueneme

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	30	.02*	10	.01*
SBT	0	0	0		0	
SBR	f		710		270	
EBL	2	3200	340	.11*	730	.23*
EBT	2	3200	550	.17	850	.27
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	660	.21*	840	.26*
WBR	f		10		50	

TOTAL CAPACITY UTILIZATION .34 .50

92. Del Norte & Camino Del Sol

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	110	.07*	110	.07
NBT	3	4800	680	.14	1170	.25*
NBR	0	0	10		10	
SBL	1	1600	30	.02	60	.04*
SBT	3	4800	700	.20*	720	.20
SBR	0	0	270		260	
EBL	2	3200	140	.04*	500	.16*
EBT	1	1600	10	.01	10	.01
EBR	1	1600	10	.01	10	.01
WBL	1	1600	10	.01	10	.01
WBT	1	1600	10	.01*	10	.01*
WBR	0	0	10		10	

TOTAL CAPACITY UTILIZATION .32 .46

94. Del Norte & 5th St

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	10		0	
SBL	2	3200	70	.02*	60	.02*
SBT	0	0	0		0	
SBR	2	3200	410	.13	470	.15
EBL	1	1600	280	.18	380	.24*
EBT	2	3200	970	.30*	830	.26
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	340	.11	1160	.36*
WBR	1	1600	50	.03	110	.07

TOTAL CAPACITY UTILIZATION .32 .62

100. Rose & Hueneme

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	70	.04*	300	.19
NBT	3	4800	260	.05	840	.18*
NBR	f		100		590	
SBL	1	1600	10	.01	130	.08*
SBT	4	6400	810	.14*	350	.07
SBR	0	0	70		140	.09
EBL	1	1600	100	.06*	60	.04*
EBT	2	3200	710	.22	890	.28
EBR	f		700		120	
WBL	1	1600	330	.21	60	.04
WBT	2	3200	1240	.39*	1050	.33*
WBR	1	1600	10	.01	10	.01

TOTAL CAPACITY UTILIZATION .63 .63

101. Oxnard & Channel Islands

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03*	280	.18
NBT	2	3200	80	.03	650	.20*
NBR	1	1600	10	.01	10	.01
SBL	1	1600	30	.02	70	.04*
SBT	2	3200	360	.11*	140	.04
SBR	1	1600	10	.01	10	.01
EBL	1	1600	10	.01	10	.01*
EBT	2	3200	770	.24*	650	.20
EBR	1	1600	390	.24	320	.20
WBL	1	1600	20	.01*	10	.01
WBT	2	3200	720	.23	1030	.32*
WBR	1	1600	100	.06	50	.03

TOTAL CAPACITY UTILIZATION .39 .57

121. Rice & Bypass

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	1970	.41*	1730	.36
NBR	1	1600	720	.45	680	.43
SBL	2	3200	10	.00	10	.00
SBT	3	4800	1530	.32	2030	.42*
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	640	.20*	840	.26*
WBT	0	0	0		0	
WBR	f		10		10	

TOTAL CAPACITY UTILIZATION .61 .68

122. Bypass & Fifth

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	70	.04*	130	.08*
NBT	0	0	0		0	
NBR	1	1600	650	.41	560	.35
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3200	660	.21*	780	.24*
EBR	1	1600	20	.01	10	.01
WBL	2	3200	630	.20*	840	.26*
WBT	2	3200	390	.12	550	.17
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.22*	NBR	.07*
TOTAL CAPACITY UTILIZATION				**.67**		**.65**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.91	0.95	0.97	0.95			0.86	1.00
Frt				1.00	0.85	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1441	1504	3433	3539			6408	1583
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1441	1504	3433	3539			6408	1583
Volume (vph)	0	0	0	70	0	320	790	460	0	0	460	640
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	74	0	337	832	484	0	0	484	674
RTOR Reduction (vph)	0	0	0	0	150	151	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	74	18	18	832	484	0	0	484	674
Turn Type				Perm		Perm	Prot					Free
Protected Phases					8		5	2			6	
Permitted Phases				8		8						Free
Actuated Green, G (s)				9.6	9.6	9.6	40.9	82.4			37.5	100.0
Effective Green, g (s)				10.6	10.6	10.6	41.9	83.4			38.5	100.0
Actuated g/C Ratio				0.11	0.11	0.11	0.42	0.83			0.38	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				178	153	159	1438	2952			2467	1583
v/s Ratio Prot							c0.24	0.14			0.08	
v/s Ratio Perm				0.04	0.01	0.01						c0.43
v/c Ratio				0.42	0.12	0.11	0.58	0.16			0.20	0.43
Uniform Delay, d1				41.8	40.5	40.4	22.3	1.6			20.5	0.0
Progression Factor				1.00	1.00	1.00	0.69	0.03			1.00	1.00
Incremental Delay, d2				1.6	0.3	0.3	0.5	0.1			0.2	0.8
Delay (s)				43.4	40.8	40.8	15.9	0.2			20.6	0.8
Level of Service				D	D	D	B	A			C	A
Approach Delay (s)		0.0			41.2			10.1			9.1	
Approach LOS		A			D			B			A	

Intersection Summary

HCM Average Control Delay	14.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		0.88					0.86	1.00	0.97	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		2787					6408	1583	3433	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		2787					6408	1583	3433	3539	
Volume (vph)	180	0	1420	0	0	0	0	1070	330	150	380	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	189	0	1495	0	0	0	0	1126	347	158	400	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	189	0	1495	0	0	0	0	1126	347	158	400	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	15.1		100.0					63.3	100.0	9.6	76.9	
Effective Green, g (s)	16.1		100.0					64.3	100.0	10.6	77.9	
Actuated g/C Ratio	0.16		1.00					0.64	1.00	0.11	0.78	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	285		2787					4120	1583	364	2757	
v/s Ratio Prot								0.18		0.05	0.11	
v/s Ratio Perm	c0.11		c0.54						0.22			
v/c Ratio	0.66		0.54					0.27	0.22	0.43	0.15	
Uniform Delay, d1	39.4		0.0					7.7	0.0	41.9	2.8	
Progression Factor	1.00		1.00					1.00	1.00	0.62	1.04	
Incremental Delay, d2	5.7		0.7					0.2	0.3	0.8	0.1	
Delay (s)	45.1		0.7					7.9	0.3	26.7	3.0	
Level of Service	D		A					A	A	C	A	
Approach Delay (s)		5.7			0.0			6.1			9.7	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	6.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97	0.91	0.88	0.97	0.86		0.86	0.86	1.00	0.94	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	5085	2787	3433	6361		1522	4798	1583	4990	3524	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	5085	2787	3433	6361		1522	4798	1583	4990	3524	
Volume (vph)	80	1180	790	100	1180	60	260	720	140	410	350	10
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	84	1242	832	105	1242	63	274	758	147	432	368	11
RTOR Reduction (vph)	0	0	583	0	10	0	0	0	111	0	3	0
Lane Group Flow (vph)	84	1242	249	105	1295	0	248	784	36	432	376	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			
Actuated Green, G (s)	3.0	18.4	18.4	3.0	18.4		14.7	14.7	14.7	12.6	12.6	
Effective Green, g (s)	4.0	19.4	19.4	4.0	19.4		15.7	15.7	15.7	13.6	13.6	
Actuated g/C Ratio	0.06	0.30	0.30	0.06	0.30		0.24	0.24	0.24	0.21	0.21	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	212	1525	836	212	1907		369	1164	384	1049	741	
v/s Ratio Prot	0.02	c0.24		c0.03	0.20		0.16	c0.16		0.09	c0.11	
v/s Ratio Perm			0.09						0.02			
v/c Ratio	0.40	0.81	0.30	0.50	0.68		0.67	0.67	0.09	0.41	0.51	
Uniform Delay, d1	29.2	21.0	17.4	29.4	19.9		22.2	22.2	19.0	22.1	22.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.2	4.9	0.9	1.8	2.0		4.8	1.6	0.1	0.3	0.5	
Delay (s)	30.4	25.9	18.3	31.2	21.9		26.9	23.7	19.1	22.4	23.1	
Level of Service	C	C	B	C	C		C	C	B	C	C	
Approach Delay (s)		23.1			22.6			23.8			22.7	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	23.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	64.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Volume (vph)	290	900	60	260	780	390	120	1150	290	370	1520	60
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	305	947	63	274	821	411	126	1211	305	389	1600	63
RTOR Reduction (vph)	0	0	48	0	0	201	0	0	186	0	0	37
Lane Group Flow (vph)	305	947	15	274	821	210	126	1211	119	389	1600	26
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	7.0	15.7	15.7	7.0	15.7	15.7	3.2	20.0	20.0	11.3	28.1	28.1
Effective Green, g (s)	8.0	16.7	16.7	8.0	16.7	16.7	4.2	21.0	21.0	12.3	29.1	29.1
Actuated g/C Ratio	0.11	0.24	0.24	0.11	0.24	0.24	0.06	0.30	0.30	0.18	0.42	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	392	1213	378	392	1213	378	206	1526	475	603	2114	658
v/s Ratio Prot	c0.09	c0.19		0.08	0.16		0.04	0.24		c0.11	c0.31	
v/s Ratio Perm			0.01			0.13			0.08			0.02
v/c Ratio	0.78	0.78	0.04	0.70	0.68	0.56	0.61	0.79	0.25	0.65	0.76	0.04
Uniform Delay, d1	30.1	24.9	20.5	29.8	24.2	23.4	32.1	22.5	18.5	26.8	17.4	12.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.4	3.3	0.0	5.4	1.5	1.8	5.3	4.3	1.3	2.4	2.6	0.1
Delay (s)	39.5	28.3	20.5	35.2	25.7	25.2	37.4	26.8	19.8	29.2	20.0	12.3
Level of Service	D	C	C	D	C	C	D	C	B	C	C	B
Approach Delay (s)		30.5			27.3			26.3			21.5	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	25.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	70.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3527		1770	1863	1583	1770	3500		1770	3534	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3527		1770	1863	1583	1770	3500		1770	3534	
Volume (vph)	40	440	10	40	200	70	40	890	70	160	1110	10
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	463	11	42	211	74	42	937	74	168	1168	11
RTOR Reduction (vph)	0	2	0	0	0	61	0	6	0	0	1	0
Lane Group Flow (vph)	42	472	0	42	211	13	42	1005	0	168	1178	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	2.2	14.2		2.2	14.2	14.2	2.7	39.9		12.7	49.9	
Effective Green, g (s)	3.2	15.2		3.2	15.2	15.2	3.7	40.9		13.7	50.9	
Actuated g/C Ratio	0.04	0.18		0.04	0.18	0.18	0.04	0.48		0.16	0.60	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	67	631		67	333	283	77	1684		285	2116	
v/s Ratio Prot	c0.02	c0.13		0.02	0.11		0.02	c0.29		c0.09	0.33	
v/s Ratio Perm						0.01						
v/c Ratio	0.63	0.75		0.63	0.63	0.05	0.55	0.60		0.59	0.56	
Uniform Delay, d1	40.3	33.1		40.3	32.3	28.9	39.8	16.1		33.0	10.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	16.9	4.9		16.9	3.9	0.1	7.7	1.6		3.1	1.1	
Delay (s)	57.2	37.9		57.2	36.2	29.0	47.5	17.6		36.1	11.3	
Level of Service	E	D		E	D	C	D	B		D	B	
Approach Delay (s)		39.5			37.3			18.8			14.4	
Approach LOS		D			D			B			B	

Intersection Summary

HCM Average Control Delay	22.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Util. Factor	1.00	1.00	1.00			0.86	0.86		1.00	0.95		
Frt	1.00	1.00	0.85			1.00	0.98		1.00	0.98		
Flt Protected	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1583			1522	4713		1770	3459		
Flt Permitted	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1863	1583			1522	4713		1770	3459		
Volume (vph)	125	650	260	185	10	80	340	50	245	450	80	100
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	147	765	306	218	12	94	400	59	288	529	94	118
RTOR Reduction (vph)	0	0	17	0	0	0	12	0	0	0	0	0
Lane Group Flow (vph)	147	765	507	0	0	106	447	0	288	623	0	0
Turn Type	Split		Perm		Split	Split			Split			Split
Protected Phases	4	4			8	8	8		2	2		6
Permitted Phases			4									
Actuated Green, G (s)	40.0	40.0	40.0			15.9	15.9		23.0	23.0		
Effective Green, g (s)	41.0	41.0	41.0			16.9	16.9		24.0	24.0		
Actuated g/C Ratio	0.27	0.27	0.27			0.11	0.11		0.16	0.16		
Clearance Time (s)	4.0	4.0	4.0			4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	484	510	433			172	531		283	554		
v/s Ratio Prot	0.08	c0.41				0.07	c0.09		0.16	c0.18		
v/s Ratio Perm			0.32									
v/c Ratio	0.30	1.50	1.17			0.62	0.84		1.02	1.12		
Uniform Delay, d1	43.1	54.4	54.4			63.4	65.2		63.0	63.0		
Progression Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.4	235.1	98.6			6.4	11.6		58.1	77.3		
Delay (s)	43.5	289.6	153.1			69.8	76.8		121.0	140.3		
Level of Service	D	F	F			E	E		F	F		
Approach Delay (s)		214.6					75.5			134.2		
Approach LOS		F					E			F		

Intersection Summary

HCM Average Control Delay	183.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.31		
Actuated Cycle Length (s)	149.9	Sum of lost time (s)	15.0
Intersection Capacity Utilization	113.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.86	0.86		1.00	1.00	0.88	
Frt	1.00	0.99		1.00	1.00	0.85	
Flt Protected	0.95	0.99		0.95	0.95	1.00	
Satd. Flow (prot)	1522	4722		1770	1770	2787	
Flt Permitted	0.95	0.99		0.95	0.95	1.00	
Satd. Flow (perm)	1522	4722		1770	1770	2787	
Volume (vph)	310	615	45	100	440	250	10
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	365	724	53	118	518	294	12
RTOR Reduction (vph)	0	4	0	0	0	2	0
Lane Group Flow (vph)	304	952	0	118	518	304	0
Turn Type		Prot		Prot	Prot		
Protected Phases	6	6		1	1		
Permitted Phases						1	
Actuated Green, G (s)	21.0	21.0		30.0	30.0	30.0	
Effective Green, g (s)	22.0	22.0		31.0	31.0	31.0	
Actuated g/C Ratio	0.15	0.15		0.21	0.21	0.21	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	223	693		366	366	576	
v/s Ratio Prot	0.20	c0.20		0.07	c0.29		
v/s Ratio Perm						0.11	
v/c Ratio	1.36	1.37		0.32	1.42	0.53	
Uniform Delay, d1	64.0	64.0		50.5	59.4	52.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2	189.6	177.1		0.5	202.4	0.9	
Delay (s)	253.5	241.0		51.0	261.8	53.8	
Level of Service	F	F		D	F	D	
Approach Delay (s)		244.0			167.8		
Approach LOS		F			F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰↰		↱		↑↑↑	↱		↑↑↑	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		5085	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		5085	1583
Volume (vph)	0	0	0	710	0	230	0	790	600	0	1600	290
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	747	0	242	0	832	632	0	1684	305
RTOR Reduction (vph)	0	0	0	0	0	86	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	747	0	156	0	832	632	0	1684	305
Turn Type				Prot		custom			Free			Free
Protected Phases				3				2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				25.3		25.3		56.7	90.0		56.7	90.0
Effective Green, g (s)				26.3		26.3		57.7	90.0		57.7	90.0
Actuated g/C Ratio				0.29		0.29		0.64	1.00		0.64	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1003		463		3260	1583		3260	1583
v/s Ratio Prot				c0.22				0.16			c0.33	
v/s Ratio Perm						0.10			0.40			0.19
v/c Ratio				0.74		0.34		0.26	0.40		0.52	0.19
Uniform Delay, d1				28.8		25.0		6.9	0.0		8.7	0.0
Progression Factor				1.00		1.00		0.60	1.00		1.00	1.00
Incremental Delay, d2				3.0		0.4		0.2	0.7		0.6	0.3
Delay (s)				31.9		25.4		4.4	0.7		9.3	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			30.3			2.8			7.9	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	11.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	57.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1583					5085	1583		5085	1583
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1583					5085	1583		5085	1583
Volume (vph)	70	0	270	0	0	0	0	1340	1120	0	1690	640
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	74	0	284	0	0	0	0	1411	1179	0	1779	674
RTOR Reduction (vph)	0	0	8	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	74	0	276	0	0	0	0	1411	1179	0	1779	674
Turn Type	Prot		custom						Free			Free
Protected Phases	7							2			6	
Permitted Phases			7						Free			Free
Actuated Green, G (s)	19.5		19.5					62.5	90.0		62.5	90.0
Effective Green, g (s)	20.5		20.5					63.5	90.0		63.5	90.0
Actuated g/C Ratio	0.23		0.23					0.71	1.00		0.71	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	782		361					3588	1583		3588	1583
v/s Ratio Prot	0.02							0.28			0.35	
v/s Ratio Perm			0.17						c0.74			0.43
v/c Ratio	0.09		0.76					0.39	0.74		0.50	0.43
Uniform Delay, d1	27.4		32.5					5.4	0.0		6.0	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.64	1.00
Incremental Delay, d2	0.1		9.2					0.3	3.2		0.4	0.7
Delay (s)	27.5		41.7					5.7	3.2		4.3	0.7
Level of Service	C		D					A	A		A	A
Approach Delay (s)		38.8			0.0			4.6			3.3	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	6.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0			3.0	3.0		3.0	3.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.92			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1681	1597			5085	1583		5085	1583
Flt Permitted				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1681	1597			5085	1583		5085	1583
Volume (vph)	0	0	0	660	0	210	0	980	650	0	1390	160
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	695	0	221	0	1032	684	0	1463	168
RTOR Reduction (vph)	0	0	0	0	30	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	475	411	0	0	1032	684	0	1463	168
Turn Type				Perm					Free			Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				27.5	27.5			44.5	80.0		44.5	80.0
Effective Green, g (s)				28.5	28.5			45.5	80.0		45.5	80.0
Actuated g/C Ratio				0.36	0.36			0.57	1.00		0.57	1.00
Clearance Time (s)				4.0	4.0			4.0			4.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				599	569			2892	1583		2892	1583
v/s Ratio Prot								0.20			c0.29	
v/s Ratio Perm				c0.28	0.26				0.43			0.11
v/c Ratio				0.79	0.72			0.36	0.43		0.51	0.11
Uniform Delay, d1				23.1	22.3			9.3	0.0		10.4	0.0
Progression Factor				1.00	1.00			1.10	1.00		1.00	1.00
Incremental Delay, d2				7.1	4.5			0.3	0.8		0.6	0.1
Delay (s)				30.2	26.9			10.5	0.8		11.1	0.1
Level of Service				C	C			B	A		B	A
Approach Delay (s)		0.0			28.6			6.6			10.0	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	58.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.85	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1442	1504					5085	1583		5085	1583
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1442	1504					5085	1583		5085	1583
Volume (vph)	310	0	620	0	0	0	0	1350	490	0	1770	230
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	326	0	653	0	0	0	0	1421	516	0	1863	242
RTOR Reduction (vph)	0	3	3	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	324	325	324	0	0	0	0	1421	516	0	1863	242
Turn Type	Split		Perm						Free			Free
Protected Phases	4	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	23.6	23.6	23.6					48.4	80.0		48.4	80.0
Effective Green, g (s)	24.6	24.6	24.6					49.4	80.0		49.4	80.0
Actuated g/C Ratio	0.31	0.31	0.31					0.62	1.00		0.62	1.00
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)	517	443	462					3140	1583		3140	1583
v/s Ratio Prot	0.19	c0.23						0.28			c0.37	
v/s Ratio Perm			0.22						0.33			0.15
v/c Ratio	0.63	0.73	0.70					0.45	0.33		0.59	0.15
Uniform Delay, d1	23.8	24.8	24.4					8.1	0.0		9.2	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		0.63	1.00
Incremental Delay, d2	2.4	6.2	4.7					0.5	0.5		0.7	0.2
Delay (s)	26.1	30.9	29.2					8.6	0.5		6.5	0.2
Level of Service	C	C	C					A	A		A	A
Approach Delay (s)		28.8			0.0			6.5			5.8	
Approach LOS		C			A			A			A	

Intersection Summary

HCM Average Control Delay	10.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	66.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3539	1583		3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		3539	1583		3539	1583	1770	5085	1583	3433	5085	1583
Volume (vph)	0	230	190	0	90	50	200	1230	10	70	1290	40
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	242	200	0	95	53	211	1295	11	74	1358	42
RTOR Reduction (vph)	0	0	0	0	0	45	0	0	0	0	0	0
Lane Group Flow (vph)	0	242	200	0	95	8	211	1295	11	74	1358	42
Turn Type			Free			Perm	Prot		Free	Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free			8			Free			Free
Actuated Green, G (s)		9.8	67.9		9.8	9.8	12.9	40.6	67.9	5.5	33.2	67.9
Effective Green, g (s)		10.8	67.9		10.8	10.8	13.9	41.6	67.9	6.5	34.2	67.9
Actuated g/C Ratio		0.16	1.00		0.16	0.16	0.20	0.61	1.00	0.10	0.50	1.00
Clearance Time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		563	1583		563	252	362	3115	1583	329	2561	1583
v/s Ratio Prot		c0.07			0.03		c0.12	0.25		0.02	c0.27	
v/s Ratio Perm			0.13			0.01			0.01			0.03
v/c Ratio		0.43	0.13		0.17	0.03	0.58	0.42	0.01	0.22	0.53	0.03
Uniform Delay, d1		25.8	0.0		24.7	24.1	24.4	6.8	0.0	28.4	11.4	0.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.5	0.2		0.1	0.1	2.4	0.4	0.0	0.3	0.8	0.0
Delay (s)		26.3	0.2		24.8	24.2	26.8	7.2	0.0	28.7	12.2	0.0
Level of Service		C	A		C	C	C	A	A	C	B	A
Approach Delay (s)		14.5			24.6			9.9			12.7	
Approach LOS		B			C			A			B	

Intersection Summary

HCM Average Control Delay	12.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	67.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.86	0.91	0.91	0.91		0.97	0.91	0.91		0.91	1.00
Frt	1.00	0.92	0.85	1.00	1.00		1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.97		0.95	1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1435	2882	1610	3274		3433	3390	1441		5085	1583
Flt Permitted	0.67	0.48	1.00	0.95	0.97		0.95	1.00	1.00		1.00	1.00
Satd. Flow (perm)	1180	701	2882	1610	3274		3433	3390	1441		5085	1583
Volume (vph)	80	0	280	1180	280	10	130	500	500	0	580	110
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	84	0	295	1242	295	11	137	526	526	0	611	116
RTOR Reduction (vph)	0	39	44	0	1	0	0	0	0	0	0	86
Lane Group Flow (vph)	51	37	208	621	926	0	137	526	526	0	611	30
Turn Type	Perm		custom	Split			Prot		Free			Perm
Protected Phases		4	4	8	8		5	2			6	
Permitted Phases	4		5						Free			6
Actuated Green, G (s)	5.0	5.0	9.0	28.0	28.0		4.0	25.0	70.0		17.0	17.0
Effective Green, g (s)	6.0	6.0	11.0	29.0	29.0		5.0	26.0	70.0		18.0	18.0
Actuated g/C Ratio	0.09	0.09	0.16	0.41	0.41		0.07	0.37	1.00		0.26	0.26
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	101	60	453	667	1356		245	1259	1441		1308	407
v/s Ratio Prot			0.04	c0.39	0.28		0.04	c0.16			0.12	
v/s Ratio Perm	0.04	c0.05	0.03						c0.37			0.02
v/c Ratio	0.50	0.61	0.46	0.93	0.89dl		0.56	0.42	0.37		0.47	0.07
Uniform Delay, d1	30.6	30.9	26.8	19.5	16.7		31.4	16.4	0.0		22.0	19.7
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	16.9	38.7	3.3	21.5	2.8		8.9	1.0	0.7		1.2	0.3
Delay (s)	47.5	69.5	30.1	41.1	19.5		40.4	17.4	0.7		23.2	20.0
Level of Service	D	E	C	D	B		D	B	A		C	C
Approach Delay (s)		40.4			28.2			12.7			22.7	
Approach LOS		D			C			B			C	

Intersection Summary

HCM Average Control Delay	23.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97		1.00					0.91	0.88	0.97	0.91	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433		1583					5085	2787	3433	5085	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433		1583					5085	2787	3433	5085	
Volume (vph)	90	0	1130	0	0	0	0	1040	820	50	1870	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	95	0	1189	0	0	0	0	1095	863	53	1968	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	210	0	0	0
Lane Group Flow (vph)	95	0	1189	0	0	0	0	1095	653	53	1968	0
Turn Type	custom		Free						Perm	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						2			
Actuated Green, G (s)	6.5		90.0					67.1	67.1	4.4	75.5	
Effective Green, g (s)	7.5		90.0					68.1	68.1	5.4	76.5	
Actuated g/C Ratio	0.08		1.00					0.76	0.76	0.06	0.85	
Clearance Time (s)	4.0							4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0							3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	286		1583					3848	2109	206	4322	
v/s Ratio Prot								0.22		0.02	0.39	
v/s Ratio Perm	0.03		c0.75						0.23			
v/c Ratio	0.33		0.75					0.28	0.31	0.26	0.46	
Uniform Delay, d1	38.9		0.0					3.4	3.5	40.4	1.7	
Progression Factor	1.00		1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.7		3.3					0.2	0.4	0.7	0.3	
Delay (s)	39.6		3.3					3.6	3.9	41.1	2.0	
Level of Service	D		A					A	A	D	A	
Approach Delay (s)		6.0			0.0			3.7			3.0	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	4.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	46.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.97		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1583	3433		1583			
Volume (vph)	360	1310	0	0	1000	150	100	0	20	0	0	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	379	1379	0	0	1053	158	105	0	21	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	102	0	0	16	0	0	0
Lane Group Flow (vph)	379	1379	0	0	1053	56	105	0	5	0	0	0
Turn Type	Prot					Perm	custom		custom			
Protected Phases	7	4			8							
Permitted Phases						8	2		2			
Actuated Green, G (s)	19.4	48.6			25.2	25.2	17.2		17.2			
Effective Green, g (s)	20.4	49.6			26.2	26.2	18.2		18.2			
Actuated g/C Ratio	0.28	0.67			0.36	0.36	0.25		0.25			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Grp Cap (vph)	489	2379			1256	562	847		390			
v/s Ratio Prot	c0.21	0.39			c0.30							
v/s Ratio Perm						0.04	c0.03		0.00			
v/c Ratio	0.78	0.58			0.84	0.10	0.12		0.01			
Uniform Delay, d1	24.6	6.5			21.9	15.9	21.6		21.0			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	7.5	0.3			5.1	0.1	0.3		0.1			
Delay (s)	32.1	6.8			26.9	16.0	21.9		21.1			
Level of Service	C	A			C	B	C		C			
Approach Delay (s)		12.3			25.5			21.8			0.0	
Approach LOS		B			C			C			A	

Intersection Summary

HCM Average Control Delay	17.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	73.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	40	1180	50	20	1160	40	170	10	80	320	70	30
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	1242	53	21	1221	42	179	11	84	337	74	32
RTOR Reduction (vph)	0	0	30	0	0	0	0	0	74	0	0	25
Lane Group Flow (vph)	42	1242	23	21	1221	42	179	11	10	337	74	7
Turn Type	Prot		Perm	Prot		Free	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free			2			6
Actuated Green, G (s)	2.1	30.6	30.6	1.4	29.9	72.7	10.3	8.0	8.0	16.7	14.4	14.4
Effective Green, g (s)	3.1	31.6	31.6	2.4	30.9	72.7	11.3	9.0	9.0	17.7	15.4	15.4
Actuated g/C Ratio	0.04	0.43	0.43	0.03	0.43	1.00	0.16	0.12	0.12	0.24	0.21	0.21
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	75	1538	688	58	1504	1583	275	438	196	431	750	335
v/s Ratio Prot	c0.02	c0.35		0.01	0.34		0.10	0.00		c0.19	c0.02	
v/s Ratio Perm			0.01			c0.03			0.01			0.00
v/c Ratio	0.56	0.81	0.03	0.36	0.81	0.03	0.65	0.03	0.05	0.78	0.10	0.02
Uniform Delay, d1	34.1	17.9	11.8	34.4	18.3	0.0	28.8	28.0	28.1	25.7	23.1	22.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.2	3.2	0.0	3.8	3.5	0.0	5.4	0.0	0.1	8.9	0.1	0.0
Delay (s)	43.4	21.1	11.8	38.2	21.8	0.0	34.3	28.0	28.2	34.6	23.1	22.7
Level of Service	D	C	B	D	C	A	C	C	C	C	C	C
Approach Delay (s)		21.5			21.4			32.2			31.9	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	23.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	72.7	Sum of lost time (s)	6.0
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.95		1.00	0.95			0.95	1.00
Frt				1.00	0.98		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.96		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1662		1770	3539			3539	1583
Flt Permitted				0.95	0.96		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1662		1770	3539			3539	1583
Volume (vph)	0	0	0	750	0	50	90	70	0	0	110	20
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	789	0	53	95	74	0	0	116	21
RTOR Reduction (vph)	0	0	0	0	10	0	0	0	0	0	0	14
Lane Group Flow (vph)	0	0	0	443	389	0	95	74	0	0	116	7
Turn Type				Perm			Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8								6
Actuated Green, G (s)				22.1	22.1		6.4	29.9			19.5	19.5
Effective Green, g (s)				23.1	23.1		7.4	30.9			20.5	20.5
Actuated g/C Ratio				0.38	0.38		0.12	0.52			0.34	0.34
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				647	640		218	1823			1209	541
v/s Ratio Prot							c0.05	0.02			c0.03	
v/s Ratio Perm				c0.26	0.23							0.00
v/c Ratio				0.68	0.61		0.44	0.04			0.10	0.01
Uniform Delay, d1				15.4	14.8		24.4	7.2			13.4	13.1
Progression Factor				1.00	1.00		0.72	0.61			1.00	1.00
Incremental Delay, d2				3.0	1.6		1.4	0.0			0.2	0.0
Delay (s)				18.4	16.5		19.0	4.4			13.6	13.1
Level of Service				B	B		B	A			B	B
Approach Delay (s)		0.0			17.5			12.6			13.5	
Approach LOS		A			B			B			B	

Intersection Summary

HCM Average Control Delay	16.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	40.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		1.00					0.95	1.00	1.00	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		1583					3539	1583	1770	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		1583					3539	1583	1770	3539	
Volume (vph)	30	0	570	0	0	0	0	130	130	40	790	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	32	0	600	0	0	0	0	137	137	42	832	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	32	0	600	0	0	0	0	137	137	42	832	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	1.6		60.0					41.0	60.0	5.4	50.4	
Effective Green, g (s)	2.6		60.0					42.0	60.0	6.4	51.4	
Actuated g/C Ratio	0.04		1.00					0.70	1.00	0.11	0.86	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	77		1583					2477	1583	189	3032	
v/s Ratio Prot								0.04		0.02	0.24	
v/s Ratio Perm	0.02		c0.38						0.09			
v/c Ratio	0.42		0.38					0.06	0.09	0.22	0.27	
Uniform Delay, d1	28.0		0.0					2.8	0.0	24.5	0.8	
Progression Factor	1.00		1.00					1.00	1.00	1.61	3.16	
Incremental Delay, d2	3.6		0.7					0.0	0.1	0.5	0.2	
Delay (s)	31.6		0.7					2.9	0.1	40.0	2.7	
Level of Service	C		A					A	A	D	A	
Approach Delay (s)		2.3			0.0			1.5			4.5	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	3.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	40.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	10	770	390	20	720	100	40	80	10	30	360	10
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	811	411	21	758	105	42	84	11	32	379	11
RTOR Reduction (vph)	0	0	244	0	0	61	0	0	8	0	0	8
Lane Group Flow (vph)	11	811	167	21	758	44	42	84	3	32	379	3
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	0.8	19.7	19.7	1.7	20.6	20.6	2.1	11.7	11.7	1.9	11.5	11.5
Effective Green, g (s)	1.8	20.7	20.7	2.7	21.6	21.6	3.1	12.7	12.7	2.9	12.5	12.5
Actuated g/C Ratio	0.04	0.41	0.41	0.05	0.42	0.42	0.06	0.25	0.25	0.06	0.25	0.25
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	62	1436	643	94	1499	670	108	881	394	101	867	388
v/s Ratio Prot	0.01	c0.23		c0.01	0.21		c0.02	0.02		0.02	c0.11	
v/s Ratio Perm			0.11			0.03			0.00			0.00
v/c Ratio	0.18	0.56	0.26	0.22	0.51	0.07	0.39	0.10	0.01	0.32	0.44	0.01
Uniform Delay, d1	23.9	11.7	10.1	23.1	10.8	8.7	23.0	14.7	14.4	23.1	16.3	14.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4	0.5	0.2	1.2	0.3	0.0	2.3	0.0	0.0	1.8	0.4	0.0
Delay (s)	25.3	12.2	10.3	24.4	11.1	8.8	25.4	14.8	14.4	24.9	16.6	14.6
Level of Service	C	B	B	C	B	A	C	B	B	C	B	B
Approach Delay (s)		11.7			11.1			18.0			17.2	
Approach LOS		B			B			B			B	

Intersection Summary

HCM Average Control Delay	12.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	51.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.91	0.95	0.97	0.95			0.86	1.00
Frt				1.00	0.87	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1469	1504	3433	3539			6408	1583
Flt Permitted				0.95	0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1469	1504	3433	3539			6408	1583
Volume (vph)	0	0	0	200	0	390	1050	880	0	0	690	560
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	211	0	411	1105	926	0	0	726	589
RTOR Reduction (vph)	0	0	0	0	144	144	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	175	90	69	1105	926	0	0	726	589
Turn Type				Perm		Perm	Prot					Free
Protected Phases					8		5	2			6	
Permitted Phases				8		8						Free
Actuated Green, G (s)				15.8	15.8	15.8	48.7	76.2			23.5	100.0
Effective Green, g (s)				16.8	16.8	16.8	49.7	77.2			24.5	100.0
Actuated g/C Ratio				0.17	0.17	0.17	0.50	0.77			0.24	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				282	247	253	1706	2732			1570	1583
v/s Ratio Prot							c0.32	0.26			c0.11	
v/s Ratio Perm				c0.10	0.06	0.05						0.37
v/c Ratio				0.62	0.36	0.27	0.65	0.34			0.46	0.37
Uniform Delay, d1				38.6	36.9	36.3	18.7	3.5			32.1	0.0
Progression Factor				1.00	1.00	1.00	0.80	0.60			1.00	1.00
Incremental Delay, d2				4.2	0.9	0.6	0.8	0.3			1.0	0.7
Delay (s)				42.8	37.8	36.9	15.7	2.4			33.1	0.7
Level of Service				D	D	D	B	A			C	A
Approach Delay (s)		0.0			38.9			9.6			18.6	
Approach LOS		A			D			A			B	

Intersection Summary

HCM Average Control Delay	17.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		0.88					0.86	1.00	0.97	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		2787					6408	1583	3433	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		2787					6408	1583	3433	3539	
Volume (vph)	300	0	1410	0	0	0	0	1620	430	110	780	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	316	0	1484	0	0	0	0	1705	453	116	821	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	316	0	1484	0	0	0	0	1705	453	116	821	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	22.0		100.0					57.2	100.0	8.8	70.0	
Effective Green, g (s)	23.0		100.0					58.2	100.0	9.8	71.0	
Actuated g/C Ratio	0.23		1.00					0.58	1.00	0.10	0.71	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	407		2787					3729	1583	336	2513	
v/s Ratio Prot								0.27		0.03	0.23	
v/s Ratio Perm	c0.18		c0.53						0.29			
v/c Ratio	0.78		0.53					0.46	0.29	0.35	0.33	
Uniform Delay, d1	36.1		0.0					11.9	0.0	42.1	5.5	
Progression Factor	1.00		1.00					1.00	1.00	0.79	2.81	
Incremental Delay, d2	9.0		0.7					0.4	0.5	0.5	0.3	
Delay (s)	45.1		0.7					12.3	0.5	33.8	15.7	
Level of Service	D		A					B	A	C	B	
Approach Delay (s)		8.5			0.0			9.8			17.9	
Approach LOS		A			A			A			B	

Intersection Summary

HCM Average Control Delay	10.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97	0.91	0.88	0.97	0.86		0.86	0.86	1.00	0.94	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	3433	5085	2787	3433	6258		1522	4777	1583	4990	3520	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	3433	5085	2787	3433	6258		1522	4777	1583	4990	3520	
Volume (vph)	160	1930	860	180	1520	280	310	620	100	770	810	30
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	168	2032	905	189	1600	295	326	653	105	811	853	32
RTOR Reduction (vph)	0	0	534	0	33	0	0	0	75	0	2	0
Lane Group Flow (vph)	168	2032	371	189	1862	0	236	743	30	811	883	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			
Actuated Green, G (s)	8.7	40.0	40.0	5.0	36.3		16.0	16.0	16.0	23.0	23.0	
Effective Green, g (s)	9.7	41.0	41.0	6.0	37.3		17.0	17.0	17.0	24.0	24.0	
Actuated g/C Ratio	0.10	0.41	0.41	0.06	0.37		0.17	0.17	0.17	0.24	0.24	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	333	2085	1143	206	2334		259	812	269	1198	845	
v/s Ratio Prot	c0.05	c0.40		c0.06	0.30		0.16	c0.16		0.16	c0.25	
v/s Ratio Perm			0.13						0.02			
v/c Ratio	0.50	0.97	0.32	0.92	0.80		0.91	0.92	0.11	0.68	1.04	
Uniform Delay, d1	42.9	29.0	20.1	46.8	28.0		40.8	40.8	35.1	34.5	38.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.2	14.6	0.8	40.0	2.0		33.3	14.7	0.2	1.5	43.2	
Delay (s)	44.1	43.5	20.8	86.8	30.0		74.1	55.5	35.3	36.0	81.2	
Level of Service	D	D	C	F	C		E	E	D	D	F	
Approach Delay (s)		37.0			35.1			57.6			59.6	
Approach LOS		D			D			E			E	

Intersection Summary

HCM Average Control Delay	44.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	92.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Volume (vph)	270	860	150	320	1340	570	180	1660	310	410	1800	120
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	284	905	158	337	1411	600	189	1747	326	432	1895	126
RTOR Reduction (vph)	0	0	78	0	0	176	0	0	113	0	0	73
Lane Group Flow (vph)	284	905	80	337	1411	424	189	1747	213	432	1895	53
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	6.0	23.0	23.0	10.0	27.0	27.0	4.0	31.0	31.0	10.0	37.0	37.0
Effective Green, g (s)	7.0	24.0	24.0	11.0	28.0	28.0	5.0	32.0	32.0	11.0	38.0	38.0
Actuated g/C Ratio	0.08	0.27	0.27	0.12	0.31	0.31	0.06	0.36	0.36	0.12	0.42	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	267	1356	422	420	1582	492	191	1808	563	420	2147	668
v/s Ratio Prot	c0.08	0.18		c0.10	c0.28		0.06	c0.34		0.13	c0.37	
v/s Ratio Perm			0.05			0.27			0.13			0.03
v/c Ratio	1.06	0.67	0.19	0.80	0.89	0.86	0.99	0.97	0.38	1.03	0.88	0.08
Uniform Delay, d1	41.5	29.4	25.5	38.4	29.6	29.2	42.5	28.5	21.6	39.5	23.9	15.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	72.9	1.3	0.2	10.6	6.8	14.4	61.4	14.6	1.9	51.4	5.7	0.2
Delay (s)	114.4	30.7	25.7	49.0	36.3	43.6	103.9	43.0	23.5	90.9	29.6	15.8
Level of Service	F	C	C	D	D	D	F	D	C	F	C	B
Approach Delay (s)		47.8			40.0			45.3			39.7	
Approach LOS		D			D			D			D	

Intersection Summary

HCM Average Control Delay	42.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	90.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3501		1770	1863	1583	1770	3504		1770	3512	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3501		1770	1863	1583	1770	3504		1770	3512	
Volume (vph)	70	390	30	80	390	100	70	1140	80	140	1320	70
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	74	411	32	84	411	105	74	1200	84	147	1389	74
RTOR Reduction (vph)	0	6	0	0	0	78	0	6	0	0	4	0
Lane Group Flow (vph)	74	437	0	84	411	27	74	1278	0	147	1459	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	3.1	18.5		6.1	21.5	21.5	3.1	38.3		8.7	43.9	
Effective Green, g (s)	4.1	19.5		7.1	22.5	22.5	4.1	39.3		9.7	44.9	
Actuated g/C Ratio	0.05	0.22		0.08	0.26	0.26	0.05	0.45		0.11	0.51	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	83	779		143	479	407	83	1572		196	1800	
v/s Ratio Prot	c0.04	0.12		0.05	c0.22		c0.04	0.36		c0.08	c0.42	
v/s Ratio Perm						0.02						
v/c Ratio	0.89	0.56		0.59	0.86	0.07	0.89	0.81		0.75	0.81	
Uniform Delay, d1	41.5	30.2		38.8	31.0	24.6	41.5	21.0		37.8	17.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	63.7	0.9		6.0	14.1	0.1	63.7	4.7		14.8	4.1	
Delay (s)	105.2	31.2		44.9	45.2	24.7	105.2	25.7		52.6	21.9	
Level of Service	F	C		D	D	C	F	C		D	C	
Approach Delay (s)		41.8			41.5			30.0			24.7	
Approach LOS		D			D			C			C	

Intersection Summary

HCM Average Control Delay	31.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	87.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Util. Factor	1.00	1.00	1.00			0.86	0.86		1.00	0.95		
Frt	1.00	1.00	0.85			1.00	0.98		1.00	0.98		
Flt Protected	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1583			1522	4705		1770	3459		
Flt Permitted	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1863	1583			1522	4705		1770	3459		
Volume (vph)	95	450	210	55	10	290	670	100	240	675	120	50
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	112	529	247	65	12	341	788	118	282	794	141	59
RTOR Reduction (vph)	0	0	7	0	0	0	12	0	0	0	0	0
Lane Group Flow (vph)	112	529	305	0	0	303	944	0	282	935	0	0
Turn Type	Split		Perm		Split	Split			Split			Split
Protected Phases	4	4			8	8	8		2	2		6
Permitted Phases			4									
Actuated Green, G (s)	24.0	24.0	24.0			20.0	20.0		23.0	23.0		
Effective Green, g (s)	25.0	25.0	25.0			21.0	21.0		24.0	24.0		
Actuated g/C Ratio	0.18	0.18	0.18			0.15	0.15		0.17	0.17		
Clearance Time (s)	4.0	4.0	4.0			4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	316	333	283			228	706		303	593		
v/s Ratio Prot	0.06	c0.28				0.20	c0.20		0.16	c0.27		
v/s Ratio Perm			0.19									
v/c Ratio	0.35	1.59	1.08			1.33	1.34		0.93	1.58		
Uniform Delay, d1	50.4	57.5	57.5			59.5	59.5		57.2	58.0		
Progression Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.7	278.7	76.2			175.0	161.3		33.9	267.6		
Delay (s)	51.1	336.2	133.7			234.5	220.8		91.1	325.6		
Level of Service	D	F	F			F	F		F	F		
Approach Delay (s)		236.4					224.1			271.2		
Approach LOS		F					F			F		

Intersection Summary

HCM Average Control Delay	253.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.57		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	132.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

50: Wooley & Oxnard

Movement	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.86	0.86		1.00	1.00	0.88	
Frt	1.00	0.99		1.00	1.00	0.85	
Flt Protected	0.95	0.99		0.95	0.95	1.00	
Satd. Flow (prot)	1522	4706		1770	1770	2787	
Flt Permitted	0.95	0.99		0.95	0.95	1.00	
Satd. Flow (perm)	1522	4706		1770	1770	2787	
Volume (vph)	380	685	80	80	640	510	10
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	447	806	94	94	753	600	12
RTOR Reduction (vph)	0	8	0	0	0	1	0
Lane Group Flow (vph)	339	1059	0	94	753	611	0
Turn Type		Prot		Prot	Prot		
Protected Phases	6	6		1	1		
Permitted Phases						1	
Actuated Green, G (s)	20.0	20.0		33.0	33.0	33.0	
Effective Green, g (s)	21.0	21.0		34.0	34.0	34.0	
Actuated g/C Ratio	0.15	0.15		0.24	0.24	0.24	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	228	706		430	430	677	
v/s Ratio Prot	0.22	c0.23		0.05	c0.43		
v/s Ratio Perm						0.22	
v/c Ratio	1.49	1.50		0.22	1.75	0.90	
Uniform Delay, d1	59.5	59.5		42.4	53.0	51.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2	241.0	232.6		0.3	347.5	15.4	
Delay (s)	300.5	292.1		42.6	400.5	66.8	
Level of Service	F	F		D	F	E	
Approach Delay (s)		294.1			237.5		
Approach LOS		F			F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		5085	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		5085	1583
Volume (vph)	0	0	0	1020	0	140	0	1330	910	0	1630	400
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	1074	0	147	0	1400	958	0	1716	421
RTOR Reduction (vph)	0	0	0	0	0	11	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1074	0	136	0	1400	958	0	1716	421
Turn Type				Prot		custom			Free			Free
Protected Phases				3				2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				34.1		34.1		47.9	90.0		47.9	90.0
Effective Green, g (s)				35.1		35.1		48.9	90.0		48.9	90.0
Actuated g/C Ratio				0.39		0.39		0.54	1.00		0.54	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1339		617		2763	1583		2763	1583
v/s Ratio Prot				c0.31				0.28			0.34	
v/s Ratio Perm						0.09			c0.61			0.27
v/c Ratio				0.80		0.22		0.51	0.61		0.62	0.27
Uniform Delay, d1				24.4		18.3		12.9	0.0		14.2	0.0
Progression Factor				1.00		1.00		0.87	1.00		1.00	1.00
Incremental Delay, d2				3.6		0.2		0.6	1.5		1.1	0.4
Delay (s)				27.9		18.5		11.8	1.5		15.2	0.4
Level of Service				C		B		B	A		B	A
Approach Delay (s)		0.0			26.8			7.6			12.3	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	13.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1583					5085	1583		5085	1583
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1583					5085	1583		5085	1583
Volume (vph)	160	0	100	0	0	0	0	2170	1210	0	1790	800
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	168	0	105	0	0	0	0	2284	1274	0	1884	842
RTOR Reduction (vph)	0	0	25	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	168	0	80	0	0	0	0	2284	1274	0	1884	842
Turn Type	Prot		custom						Free			Free
Protected Phases	7							2			6	
Permitted Phases			7						Free			Free
Actuated Green, G (s)	10.0		10.0					72.0	90.0		72.0	90.0
Effective Green, g (s)	11.0		11.0					73.0	90.0		73.0	90.0
Actuated g/C Ratio	0.12		0.12					0.81	1.00		0.81	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	420		193					4125	1583		4125	1583
v/s Ratio Prot	0.05							0.45			0.37	
v/s Ratio Perm			0.05						c0.80			0.53
v/c Ratio	0.40		0.41					0.55	0.80		0.46	0.53
Uniform Delay, d1	36.5		36.5					2.9	0.0		2.6	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.10	1.00
Incremental Delay, d2	0.6		1.4					0.5	4.5		0.3	0.9
Delay (s)	37.1		37.9					3.5	4.5		3.1	0.9
Level of Service	D		D					A	A		A	A
Approach Delay (s)		37.4			0.0			3.8			2.4	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	4.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	53.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0			3.0	3.0		3.0	3.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.93			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.97			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1681	1608			5085	1583		5085	1583
Flt Permitted				0.95	0.97			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1681	1608			5085	1583		5085	1583
Volume (vph)	0	0	0	1030	0	270	0	1710	560	0	1440	370
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	1084	0	284	0	1800	589	0	1516	389
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	721	645	0	0	1800	589	0	1516	389
Turn Type				Perm					Free			Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				36.5	36.5			35.5	80.0		35.5	80.0
Effective Green, g (s)				37.5	37.5			36.5	80.0		36.5	80.0
Actuated g/C Ratio				0.47	0.47			0.46	1.00		0.46	1.00
Clearance Time (s)				4.0	4.0			4.0			4.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				788	754			2320	1583		2320	1583
v/s Ratio Prot								c0.35			0.30	
v/s Ratio Perm				c0.43	0.40				0.37			0.25
v/c Ratio				0.91	0.86			0.78	0.37		0.65	0.25
Uniform Delay, d1				19.8	18.8			18.3	0.0		16.9	0.0
Progression Factor				1.00	1.00			0.73	1.00		1.00	1.00
Incremental Delay, d2				15.1	9.4			2.0	0.5		1.4	0.4
Delay (s)				34.9	28.2			15.4	0.5		18.3	0.4
Level of Service				C	C			B	A		B	A
Approach Delay (s)		0.0			31.7			11.7			14.6	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM Average Control Delay	17.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.85	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1442	1504					5085	1583		5085	1583
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1442	1504					5085	1583		5085	1583
Volume (vph)	270	0	540	0	0	0	0	1990	440	0	2190	190
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	284	0	568	0	0	0	0	2095	463	0	2305	200
RTOR Reduction (vph)	0	3	3	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	282	283	281	0	0	0	0	2095	463	0	2305	200
Turn Type	Split		Perm						Free			Free
Protected Phases	4	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	20.9	20.9	20.9					51.1	80.0		51.1	80.0
Effective Green, g (s)	21.9	21.9	21.9					52.1	80.0		52.1	80.0
Actuated g/C Ratio	0.27	0.27	0.27					0.65	1.00		0.65	1.00
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)	460	395	412					3312	1583		3312	1583
v/s Ratio Prot	0.17	c0.20						0.41			c0.45	
v/s Ratio Perm			0.19						0.29			0.13
v/c Ratio	0.61	0.72	0.68					0.63	0.29		0.70	0.13
Uniform Delay, d1	25.4	26.2	25.9					8.3	0.0		8.9	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		1.37	1.00
Incremental Delay, d2	2.4	6.1	4.6					0.9	0.5		0.8	0.1
Delay (s)	27.8	32.3	30.6					9.2	0.5		12.9	0.1
Level of Service	C	C	C					A	A		B	A
Approach Delay (s)		30.2			0.0			7.6			11.9	
Approach LOS		C			A			A			B	

Intersection Summary

HCM Average Control Delay	12.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.91		0.97	0.91	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		3539	1583		3539	1583	1770	5085		3433	5085	1583
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		3539	1583		3539	1583	1770	5085		3433	5085	1583
Volume (vph)	0	140	60	0	430	90	390	1260	0	70	1350	60
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	147	63	0	453	95	411	1326	0	74	1421	63
RTOR Reduction (vph)	0	0	0	0	0	77	0	0	0	0	0	0
Lane Group Flow (vph)	0	147	63	0	453	18	411	1326	0	74	1421	63
Turn Type			Free			Perm	Prot		Free	Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free			8			Free			Free
Actuated Green, G (s)		14.0	77.4		14.0	14.0	21.1	48.3		3.1	30.3	77.4
Effective Green, g (s)		15.0	77.4		15.0	15.0	22.1	49.3		4.1	31.3	77.4
Actuated g/C Ratio		0.19	1.00		0.19	0.19	0.29	0.64		0.05	0.40	1.00
Clearance Time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		686	1583		686	307	505	3239		182	2056	1583
v/s Ratio Prot		0.04			c0.13		c0.23	0.26		0.02	c0.28	
v/s Ratio Perm			0.04			0.01						0.04
v/c Ratio		0.21	0.04		0.66	0.06	0.81	0.41		0.41	0.69	0.04
Uniform Delay, d1		26.2	0.0		28.8	25.4	25.7	6.9		35.5	19.1	0.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		0.2	0.0		2.4	0.1	9.7	0.4		1.5	1.9	0.0
Delay (s)		26.4	0.0		31.2	25.5	35.5	7.3		37.0	21.0	0.0
Level of Service		C	A		C	C	D	A		D	C	A
Approach Delay (s)		18.5			30.2			14.0			20.9	
Approach LOS		B			C			B			C	

Intersection Summary

HCM Average Control Delay	19.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	77.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	69.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.86	0.91	0.91	0.91		0.97	0.91	0.91		0.91	1.00
Frt	1.00	0.88	0.85	1.00	0.99		1.00	0.95	0.85		1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.98		0.95	1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1395	2882	1610	3307		3433	3211	1441		5085	1583
Flt Permitted	0.95	0.99	1.00	0.95	0.98		0.95	1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1395	2882	1610	3307		3433	3211	1441		5085	1583
Volume (vph)	260	0	860	880	660	60	240	460	1130	0	650	240
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	274	0	905	926	695	63	253	484	1189	0	684	253
RTOR Reduction (vph)	0	131	43	0	4	0	0	72	0	0	0	205
Lane Group Flow (vph)	215	173	617	545	1135	0	253	676	925	0	684	48
Turn Type	custom		custom	Split			Prot		Free			Perm
Protected Phases	4	4	4	8	8		5	2			6	
Permitted Phases	4		5						Free			6
Actuated Green, G (s)	16.0	16.0	23.9	34.0	34.0		7.9	28.0	90.0		16.1	16.1
Effective Green, g (s)	17.0	17.0	25.9	35.0	35.0		8.9	29.0	90.0		17.1	17.1
Actuated g/C Ratio	0.19	0.19	0.29	0.39	0.39		0.10	0.32	1.00		0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	318	264	925	626	1286		339	1035	1441		966	301
v/s Ratio Prot	0.13	0.12	c0.13	0.34	c0.34		0.07	0.21			0.13	
v/s Ratio Perm			0.09						c0.64			0.03
v/c Ratio	0.68	0.66	0.67	0.87	0.88		0.75	0.65	0.64		0.71	0.16
Uniform Delay, d1	33.9	33.8	28.3	25.4	25.6		39.5	26.2	0.0		34.1	30.4
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	11.0	12.1	3.8	15.3	9.0		13.9	3.2	2.2		4.4	1.1
Delay (s)	44.9	45.9	32.1	40.7	34.6		53.4	29.4	2.2		38.5	31.6
Level of Service	D	D	C	D	C		D	C	A		D	C
Approach Delay (s)		38.0			36.6			19.5			36.6	
Approach LOS		D			D			B			D	

Intersection Summary			
HCM Average Control Delay	31.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97		1.00					0.91	0.88	0.97	0.91	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433		1583					5085	2787	3433	5085	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433		1583					5085	2787	3433	5085	
Volume (vph)	180	0	700	0	0	0	0	1650	500	310	1850	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	189	0	737	0	0	0	0	1737	526	326	1947	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	204	0	0	0
Lane Group Flow (vph)	189	0	737	0	0	0	0	1737	322	326	1947	0
Turn Type	custom		Free						Perm	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						2			
Actuated Green, G (s)	10.1		90.0					54.1	54.1	13.8	71.9	
Effective Green, g (s)	11.1		90.0					55.1	55.1	14.8	72.9	
Actuated g/C Ratio	0.12		1.00					0.61	0.61	0.16	0.81	
Clearance Time (s)	4.0							4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0							3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	423		1583					3113	1706	565	4119	
v/s Ratio Prot								c0.34		c0.09	0.38	
v/s Ratio Perm	0.06		c0.47						0.12			
v/c Ratio	0.45		0.47					0.56	0.19	0.58	0.47	
Uniform Delay, d1	36.6		0.0					10.3	7.7	34.7	2.6	
Progression Factor	1.00		1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.8		1.0					0.7	0.2	1.4	0.4	
Delay (s)	37.4		1.0					11.0	7.9	36.1	3.0	
Level of Service	D		A					B	A	D	A	
Approach Delay (s)		8.4			0.0			10.3			7.8	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.97		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1583	3433		1583			
Volume (vph)	220	1470	0	0	1740	240	280	0	40	0	0	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	232	1547	0	0	1832	253	295	0	42	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	94	0	0	34	0	0	0
Lane Group Flow (vph)	232	1547	0	0	1832	159	295	0	8	0	0	0
Turn Type	Prot					Perm	custom		custom			
Protected Phases	7	4			8							
Permitted Phases						8	2		2			
Actuated Green, G (s)	13.5	64.5			47.0	47.0	17.0		17.0			
Effective Green, g (s)	14.5	65.5			48.0	48.0	18.0		18.0			
Actuated g/C Ratio	0.16	0.73			0.54	0.54	0.20		0.20			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Grp Cap (vph)	287	2590			1898	849	690		318			
v/s Ratio Prot	c0.13	0.44			c0.52							
v/s Ratio Perm						0.10	c0.09		0.01			
v/c Ratio	0.81	0.60			0.97	0.19	0.43		0.03			
Uniform Delay, d1	36.2	5.7			19.9	10.7	31.2		28.7			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	15.3	0.4			13.3	0.1	1.9		0.2			
Delay (s)	51.4	6.1			33.3	10.8	33.2		28.9			
Level of Service	D	A			C	B	C		C			
Approach Delay (s)		12.0			30.5			32.6			0.0	
Approach LOS		B			C			C			A	

Intersection Summary

HCM Average Control Delay	22.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	89.5	Sum of lost time (s)	9.0
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	40	1340	20	30	1420	520	280	10	40	300	40	40
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	1411	21	32	1495	547	295	11	42	316	42	42
RTOR Reduction (vph)	0	0	10	0	0	0	0	0	38	0	0	38
Lane Group Flow (vph)	42	1411	11	32	1495	547	295	11	4	316	42	4
Turn Type	Prot		Perm	Prot		Free	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free			2			6
Actuated Green, G (s)	2.2	35.9	35.9	1.5	35.2	76.2	15.7	6.3	6.3	16.5	7.1	7.1
Effective Green, g (s)	3.2	36.9	36.9	2.5	36.2	76.2	16.7	7.3	7.3	17.5	8.1	8.1
Actuated g/C Ratio	0.04	0.48	0.48	0.03	0.48	1.00	0.22	0.10	0.10	0.23	0.11	0.11
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	74	1714	767	58	1681	1583	388	339	152	406	376	168
v/s Ratio Prot	0.02	0.40		0.02	c0.42		0.17	0.00		c0.18	0.01	
v/s Ratio Perm			0.01			c0.35			0.00			0.00
v/c Ratio	0.57	0.82	0.01	0.55	0.89	0.35	0.76	0.03	0.03	0.78	0.11	0.03
Uniform Delay, d1	35.8	16.9	10.2	36.3	18.2	0.0	27.9	31.2	31.2	27.5	30.8	30.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.6	3.3	0.0	10.9	6.2	0.6	8.5	0.0	0.1	9.1	0.1	0.1
Delay (s)	45.4	20.2	10.2	47.2	24.4	0.6	36.4	31.3	31.3	36.6	30.9	30.6
Level of Service	D	C	B	D	C	A	D	C	C	D	C	C
Approach Delay (s)		20.8			18.4			35.6			35.4	
Approach LOS		C			B			D			D	

Intersection Summary

HCM Average Control Delay	22.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	76.2	Sum of lost time (s)	6.0
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.95		1.00	0.95			0.95	1.00
Frt				1.00	0.92		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.98		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1601		1770	3539			3539	1583
Flt Permitted				0.95	0.98		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1601		1770	3539			3539	1583
Volume (vph)	0	0	0	250	10	90	450	430	0	0	160	40
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	263	11	95	474	453	0	0	168	42
RTOR Reduction (vph)	0	0	0	0	68	0	0	0	0	0	0	32
Lane Group Flow (vph)	0	0	0	181	120	0	474	453	0	0	168	10
Turn Type				Perm			Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8								6
Actuated Green, G (s)				11.6	11.6		22.9	40.4			13.5	13.5
Effective Green, g (s)				12.6	12.6		23.9	41.4			14.5	14.5
Actuated g/C Ratio				0.21	0.21		0.40	0.69			0.24	0.24
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				353	336		705	2442			855	383
v/s Ratio Prot							c0.27	c0.13			0.05	
v/s Ratio Perm				c0.11	0.08							0.01
v/c Ratio				0.51	0.36		0.67	0.19			0.20	0.03
Uniform Delay, d1				21.0	20.2		14.8	3.3			18.1	17.4
Progression Factor				1.00	1.00		0.75	0.61			1.00	1.00
Incremental Delay, d2				1.3	0.7		2.4	0.2			0.5	0.1
Delay (s)				22.2	20.9		13.5	2.2			18.6	17.5
Level of Service				C	C		B	A			B	B
Approach Delay (s)		0.0			21.6			8.0			18.4	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		1.00					0.95	1.00	1.00	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		1583					3539	1583	1770	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		1583					3539	1583	1770	3539	
Volume (vph)	10	0	80	0	0	0	0	900	1010	60	330	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	0	84	0	0	0	0	947	1063	63	347	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	11	0	84	0	0	0	0	947	1063	63	347	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	1.3		60.0					41.4	60.0	5.3	50.7	
Effective Green, g (s)	2.3		60.0					42.4	60.0	6.3	51.7	
Actuated g/C Ratio	0.04		1.00					0.71	1.00	0.10	0.86	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	68		1583					2501	1583	186	3049	
v/s Ratio Prot								0.27		0.04	0.10	
v/s Ratio Perm	0.01		0.05						c0.67			
v/c Ratio	0.16		0.05					0.38	0.67	0.34	0.11	
Uniform Delay, d1	27.9		0.0					3.5	0.0	24.9	0.6	
Progression Factor	1.00		1.00					1.00	1.00	1.25	0.05	
Incremental Delay, d2	1.1		0.1					0.4	2.3	1.0	0.1	
Delay (s)	29.0		0.1					4.0	2.3	32.1	0.1	
Level of Service	C		A					A	A	C	A	
Approach Delay (s)		3.4			0.0			3.1			5.0	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM Average Control Delay	3.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	10	650	320	10	1030	50	280	650	10	70	140	10
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	684	337	11	1084	53	295	684	11	74	147	11
RTOR Reduction (vph)	0	0	211	0	0	33	0	0	7	0	0	9
Lane Group Flow (vph)	11	684	126	11	1084	20	295	684	4	74	147	2
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	0.6	23.0	23.0	0.6	23.0	23.0	14.0	21.3	21.3	3.2	10.5	10.5
Effective Green, g (s)	1.6	24.0	24.0	1.6	24.0	24.0	15.0	22.3	22.3	4.2	11.5	11.5
Actuated g/C Ratio	0.02	0.37	0.37	0.02	0.37	0.37	0.23	0.35	0.35	0.07	0.18	0.18
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	44	1325	593	44	1325	593	414	1231	551	116	635	284
v/s Ratio Prot	c0.01	0.19		0.01	c0.31		c0.17	c0.19		0.04	0.04	
v/s Ratio Perm			0.08			0.01			0.00			0.00
v/c Ratio	0.25	0.52	0.21	0.25	0.82	0.03	0.71	0.56	0.01	0.64	0.23	0.01
Uniform Delay, d1	30.7	15.5	13.6	30.7	18.1	12.7	22.6	16.9	13.7	29.2	22.5	21.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.0	0.3	0.2	3.0	4.1	0.0	5.7	0.5	0.0	11.0	0.2	0.0
Delay (s)	33.6	15.9	13.8	33.6	22.1	12.7	28.3	17.4	13.7	40.2	22.7	21.6
Level of Service	C	B	B	C	C	B	C	B	B	D	C	C
Approach Delay (s)		15.4			21.8			20.6			28.2	
Approach LOS		B			C			C			C	

Intersection Summary

HCM Average Control Delay	20.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	64.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

APPENDIX C

LEVEL OF SERVICE WORKSHEETS: PROJECT PHASING SCENARIOS & MITIGATION

20. Ventura & Gonzales

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	153	.10	197	.12*
NBT	2	3200	568	.18*	703	.22
NBR	1	1600	304	.19	402	.25
SBL	1	1600	87	.05*	108	.07
SBT	3	4800	506	.12	990	.22*
SBR	0	0	69		74	
EBL	1	1600	137	.09*	130	.08
EBT	2	3200	353	.11	428	.13*
EBR	1	1600	53	.03	119	.07
WBL	2	3200	212	.07	566	.18*
WBT	2	3200	325	.11*	496	.18
WBR	0	0	35		87	
TOTAL CAPACITY UTILIZATION				**.43**		**.65**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	148	.09	207	.13*
NBT	2	3200	587	.18*	713	.22
NBR	1	1600	299	.19	400	.25
SBL	1	1600	89	.06*	110	.07
SBT	3	4800	523	.12	988	.22*
SBR	0	0	69		74	
EBL	1	1600	137	.09*	135	.08
EBT	2	3200	365	.11	430	.13*
EBR	1	1600	51	.03	119	.07
WBL	2	3200	207	.06	536	.17*
WBT	2	3200	325	.11*	496	.18
WBR	0	0	37		94	
TOTAL CAPACITY UTILIZATION				**.44**		**.65**

24. Ventura & Wooley

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	87	.05	92	.06
NBT	2	3200	1020	.34*	1117	.37*
NBR	0	0	64		75	
SBL	1	1600	140	.09*	176	.11*
SBT	2	3200	824	.28	1146	.40
SBR	0	0	78		147	
EBL	1	1600	209	.13	154	.10*
EBT	2	3200	602	.19*	466	.15
EBR	1	1600	54	.03	85	.05
WBL	1	1600	94	.06*	233	.15
WBT	2	3200	353	.11	699	.22*
WBR	1	1600	174	.11	215	.13
TOTAL CAPACITY UTILIZATION				**.68**		**.80**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	87	.05	92	.06
NBT	2	3200	1022	.34*	1119	.37*
NBR	0	0	66		73	
SBL	1	1600	135	.08*	176	.11*
SBT	2	3200	826	.28	1136	.40
SBR	0	0	76		147	
EBL	1	1600	204	.13	154	.10*
EBT	2	3200	619	.19*	468	.15
EBR	1	1600	59	.04	85	.05
WBL	1	1600	94	.06*	233	.15
WBT	2	3200	353	.11	713	.22*
WBR	1	1600	169	.11	215	.13
TOTAL CAPACITY UTILIZATION				**.67**		**.80**

45. Oxnard & Vineyard

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	83	.03	283	.09*
NBT	2	3200	616	.19*	805	.25
NBR	2	3200	781	.24	786	.25
SBL	2	3200	98	.03*	181	.06
SBT	3	4800	645	.15	882	.22*
SBR	0	0	95		186	
EBL	1.5		259	.16	240	
EBT	2.5	6400	1122	.23*	597	.13*
EBR	1	1600	172	.11	136	.09
WBL	3	4800	577	.12	889	.19
WBT	2	3200	433	.14*	1013	.32*
WBR	0	0	16		21	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .59 .76

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	85	.03	302	.09*
NBT	2	3200	640	.20*	810	.25
NBR	2	3200	774	.24	798	.25
SBL	2	3200	98	.03*	181	.06
SBT	3	4800	683	.16	884	.22*
SBR	0	0	95		181	
EBL	1.5		264	.17	242	
EBT	2.5	6400	1196	.25*	609	.13*
EBR	1	1600	174	.11	136	.09
WBL	3	4800	608	.13	889	.19
WBT	2	3200	433	.14*	1013	.32*
WBR	0	0	16		21	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .62 .76

46. Oxnard & Gonzales

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	95	.03	180	.06*
NBT	3	4800	771	.16*	936	.20
NBR	1	1600	370	.23	305	.19
SBL	2	3200	302	.09*	405	.13
SBT	3	4800	1009	.21	1333	.28*
SBR	1	1600	61	.04	113	.07
EBL	2	3200	229	.07	245	.08
EBT	2	3200	925	.29*	966	.30*
EBR	1	1600	59	.04	124	.08
WBL	2	3200	267	.08*	386	.12*
WBT	3	4800	737	.15	1171	.24
WBR	1	1600	356	.22	386	.24
Right Turn Adjustment			NBR	.01*		

TOTAL CAPACITY UTILIZATION .63 .76

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	95	.03	178	.06*
NBT	3	4800	785	.16*	960	.20
NBR	1	1600	363	.23	305	.19
SBL	2	3200	350	.11*	405	.13
SBT	3	4800	1035	.22	1321	.28*
SBR	1	1600	61	.04	113	.07
EBL	2	3200	231	.07	243	.08
EBT	2	3200	927	.29*	995	.31*
EBR	1	1600	64	.04	126	.08
WBL	2	3200	262	.08*	391	.12*
WBT	3	4800	732	.15	1207	.25
WBR	1	1600	356	.22	384	.24
Right Turn Adjustment			NBR	.01*		

TOTAL CAPACITY UTILIZATION .65 .77

65. Rose & Gonzales

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	267	.08	396	.12*
NBT	3	4800	1115	.23*	1202	.25
NBR	1	1600	228	.14	130	.08
SBL	2	3200	304	.10*	304	.10
SBT	3	4800	1042	.22	1491	.31*
SBR	1	1600	297	.19	610	.38
EBL	2	3200	673	.21*	579	.18*
EBT	3	4800	864	.18	585	.12
EBR	1	1600	252	.16	207	.13
WBL	1	1600	85	.05	167	.10
WBT	3	4800	348	.07*	1118	.23*
WBR	1	1600	143	.09	288	.18
TOTAL CAPACITY UTILIZATION				**.61**		**.84**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	274	.09	394	.12*
NBT	3	4800	1163	.24*	1248	.26
NBR	1	1600	204	.13	128	.08
SBL	2	3200	378	.12*	304	.10
SBT	3	4800	1047	.22	1501	.31*
SBR	1	1600	280	.18	610	.38
EBL	2	3200	738	.23*	579	.18*
EBT	3	4800	950	.20	611	.13
EBR	1	1600	274	.17	207	.13
WBL	1	1600	87	.05	138	.09
WBT	3	4800	372	.08*	1180	.25*
WBR	1	1600	155	.10	290	.18
TOTAL CAPACITY UTILIZATION				**.67**		**.86**

66. Rose & Camino del Sol

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	131	.08	108	.07
NBT	2	3200	1181	.37*	1299	.41*
NBR	1	1600	202	.13	140	.09
SBL	1	1600	185	.12*	135	.08*
SBT	2	3200	1249	.39	1287	.40
SBR	f		82		254	
EBL	1	1600	189	.12	137	.09
EBT	2	3200	261	.13*	181	.09*
EBR	0	0	140		95	
WBL	1	1600	152	.10*	261	.16*
WBT	2	3200	145	.05	459	.14
WBR	1	1600	95	.06	247	.15
TOTAL CAPACITY UTILIZATION				**.72**		**.74**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	131	.08	94	.06
NBT	2	3200	1210	.38*	1313	.41*
NBR	1	1600	216	.14	140	.09
SBL	1	1600	221	.14*	140	.09*
SBT	2	3200	1220	.38	1285	.40
SBR	f		84		247	
EBL	1	1600	194	.12	142	.09
EBT	2	3200	290	.13*	179	.09*
EBR	0	0	135		93	
WBL	1	1600	152	.10*	275	.17*
WBT	2	3200	147	.05	517	.16
WBR	1	1600	100	.06	273	.17
TOTAL CAPACITY UTILIZATION				**.75**		**.76**

68. Rose & 5th

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	16	.01*	25	.02*
NBT	3	4800	1187	.27	1263	.28
NBR	0	0	113		59	
SBL	1	1600	39	.02	29	.02
SBT	3	4800	1224	.29*	1312	.32*
SBR	0	0	151		208	
EBL	2	3200	227	.07	325	.10
EBT	1	1600	461	.29*	345	.22*
EBR	1	1600	34	.02	46	.03
WBL	1	1600	137	.09*	233	.15*
WBT	2	3200	256	.09	581	.21
WBR	0	0	25		76	

TOTAL CAPACITY UTILIZATION .68 .71

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	16	.01	25	.02*
NBT	3	4800	1204	.28*	1253	.27
NBR	0	0	142		57	
SBL	1	1600	39	.02*	31	.02
SBT	3	4800	1207	.28	1307	.32*
SBR	0	0	146		210	
EBL	2	3200	234	.07	344	.11
EBT	1	1600	483	.30*	331	.21*
EBR	1	1600	34	.02	44	.03
WBL	1	1600	139	.09*	269	.17*
WBT	2	3200	258	.09	605	.21
WBR	0	0	25		78	

TOTAL CAPACITY UTILIZATION .69 .72

69. Rose & Wooley

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	35	.02*	38	.02*
NBT	2	3200	1057	.33	890	.28
NBR	1	1600	103	.06	75	.05
SBL	1	1600	23	.01	11	.01
SBT	2	3200	1057	.33*	1296	.41*
SBR	f		391		415	
EBL	2	3200	249	.08	344	.11*
EBT	2	3200	318	.11*	222	.09
EBR	0	0	36		60	
WBL	1	1600	64	.04*	117	.07
WBT	2	3200	140	.05	374	.13*
WBR	0	0	18		27	

TOTAL CAPACITY UTILIZATION .50 .67

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	33	.02	38	.02*
NBT	2	3200	1079	.34*	890	.28
NBR	1	1600	103	.06	75	.05
SBL	1	1600	25	.02*	13	.01
SBT	2	3200	1047	.33	1306	.41*
SBR	f		384		427	
EBL	2	3200	271	.08	339	.11*
EBT	2	3200	306	.11*	217	.09
EBR	0	0	34		60	
WBL	1	1600	78	.05*	127	.08
WBT	2	3200	135	.05	376	.13*
WBR	0	0	18		27	

TOTAL CAPACITY UTILIZATION .52 .67

71. **Rose & Oxnard**

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	155	.10*	171	.11*
NBT	2	3200	812	.25	798	.25
NBR	1	1600	31	.02	21	.01
SBL	2	3200	38	.01	59	.02
SBT	2	3200	661	.21*	1054	.33*
SBR	f		29		49	
EBL	0	0	0		0	
EBT	2	3200	300	.09*	196	.06
EBR	f		203		298	
WBL	0	0	1		0	
WBT	2	3200	236	.07	702	.22*
WBR	f		72		85	
TOTAL CAPACITY UTILIZATION				**.40**		**.66**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	153	.10*	171	.11*
NBT	2	3200	824	.26	796	.25
NBR	1	1600	31	.02	21	.01
SBL	2	3200	45	.01	66	.02
SBT	2	3200	649	.20*	1061	.33*
SBR	f		29		49	
EBL	0	0	0		0	
EBT	2	3200	302	.09*	198	.06
EBR	f		203		298	
WBL	0	0	1		0	
WBT	2	3200	243	.08	707	.22*
WBR	f		77		87	
TOTAL CAPACITY UTILIZATION				**.39**		**.66**

72. **Rose & Channel Islands**

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	162	.05	278	.09
NBT	2	3200	675	.21*	175	.05*
NBR	1	1600	113	.07	25	.02
SBL	1	1600	105	.07*	190	.12*
SBT	3	4800	623	.16	208	.07
SBR	0	0	142		331	.21
EBL	2	3200	380	.12	441	.14*
EBT	2	3200	635	.20*	395	.12
EBR	1	1600	195	.12	189	.12
WBL	2	3200	169	.05*	286	.09
WBT	2	3200	293	.09	764	.24*
WBR	1	1600	5	.00	8	.01
Right Turn Adjustment					SBR	.02*
TOTAL CAPACITY UTILIZATION				**.53**		**.57**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	160	.05	276	.09
NBT	2	3200	687	.21*	175	.05*
NBR	1	1600	123	.08	27	.02
SBL	1	1600	105	.07*	190	.12*
SBT	3	4800	613	.16	220	.07
SBR	0	0	137		326	.20
EBL	2	3200	380	.12	439	.14*
EBT	2	3200	640	.20*	405	.13
EBR	1	1600	195	.12	187	.12
WBL	2	3200	174	.05*	291	.09
WBT	2	3200	303	.09	788	.25*
WBR	1	1600	5	.00	8	.01
Right Turn Adjustment					SBR	.01*
TOTAL CAPACITY UTILIZATION				**.53**		**.57**

73. Rose & Bard

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	32	.02	52	.03*
NBT	2	3200	683	.21*	422	.13
NBR	1	1600	19	.01	19	.01
SBL	1	1600	191	.12*	76	.05
SBT	2	3200	505	.16	561	.18*
SBR	1	1600	154	.10	314	.20
EBL	1	1600	238	.15*	170	.11*
EBT	2	3200	216	.08	154	.06
EBR	0	0	32		47	
WBL	1	1600	9	.01	15	.01
WBT	2	3200	120	.08*	353	.16*
WBR	0	0	173	.11	145	
TOTAL CAPACITY UTILIZATION				**.56**		**.48**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	34	.02	57	.04*
NBT	2	3200	695	.22*	412	.13
NBR	1	1600	19	.01	19	.01
SBL	1	1600	193	.12*	78	.05
SBT	2	3200	505	.16	568	.18*
SBR	1	1600	149	.09	319	.20
EBL	1	1600	240	.15*	177	.11*
EBT	2	3200	216	.08	156	.06
EBR	0	0	34		47	
WBL	1	1600	11	.01	15	.01
WBT	2	3200	127	.08*	355	.16*
WBR	0	0	175	.11	147	
TOTAL CAPACITY UTILIZATION				**.57**		**.49**

74. Rose & Pleasant Valley

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	54	.03	75	.05
NBT	2	3200	158	.05*	192	.06*
NBR	1	1600	55	.03	53	.03
SBL	1	1600	153	.10*	142	.09*
SBT	2	3200	181	.06	232	.07
SBR	1	1600	182	.11	266	.17
EBL	1	1600	268	.17*	234	.15*
EBT	2	3200	660	.21	421	.13
EBR	1	1600	35	.02	32	.02
WBL	1	1600	54	.03	78	.05
WBT	2	3200	489	.15*	689	.22*
WBR	1	1600	112	.07	122	.08
TOTAL CAPACITY UTILIZATION				**.47**		**.52**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	54	.03	82	.05
NBT	2	3200	135	.04*	199	.06*
NBR	1	1600	55	.03	48	.03
SBL	1	1600	153	.10*	144	.09*
SBT	2	3200	181	.06	258	.08
SBR	1	1600	148	.09	266	.17
EBL	1	1600	285	.18*	234	.15*
EBT	2	3200	655	.20	378	.12
EBR	1	1600	40	.03	22	.01
WBL	1	1600	49	.03	68	.04
WBT	2	3200	441	.14*	679	.21*
WBR	1	1600	128	.08	141	.09
TOTAL CAPACITY UTILIZATION				**.46**		**.51**

78. Bard & Pleasant Valley

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	1		1	
NBT	1	1600	1	.01*	1	.01*
NBR	0	0	14		15	
SBL	1.5		293		191	
SBT	0.5	3200	3	.09*	11	.06*
SBR	1	1600	15	.01	22	.01
EBL	1	1600	46	.03*	43	.03*
EBT	2	3200	920	.29	569	.18
EBR	0	0	5		1	
WBL	1	1600	16	.01	36	.02
WBT	2	3200	600	.30*	914	.45*
WBR	0	0	361		525	

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .43 .55

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	1		1	
NBT	1	1600	1	.01*	1	.01*
NBR	0	0	14		15	
SBL	1.5		293		196	
SBT	0.5	3200	3	.09*	11	.06*
SBR	1	1600	17	.01	24	.02
EBL	1	1600	46	.03*	43	.03*
EBT	2	3200	920	.29	571	.18
EBR	0	0	5		1	
WBL	1	1600	16	.01	36	.02
WBT	2	3200	600	.30*	907	.45*
WBR	0	0	373		532	

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .43 .55

82. Rice & Camino Del Sol

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	103	.06	197	.12*
NBT	3	4800	895	.19*	1247	.26
NBR	1	1600	81	.05	42	.03
SBL	1	1600	203	.13*	103	.06
SBT	3	4800	1089	.23	1179	.25*
SBR	d	1600	149	.09	240	.15
EBL	1	1600	140	.09*	147	.09*
EBT	2	3200	211	.07	224	.07
EBR	1	1600	69	.04	59	.04
WBL	1	1600	41	.03	76	.05
WBT	2	3200	134	.04*	337	.11*
WBR	1	1600	73	.05	176	.11

TOTAL CAPACITY UTILIZATION .45 .57

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	91	.06	192	.12*
NBT	3	4800	1080	.23*	1216	.25
NBR	1	1600	81	.05	40	.03
SBL	1	1600	205	.13*	74	.05
SBT	3	4800	1055	.22	1299	.27*
SBR	d	1600	123	.08	254	.16
EBL	1	1600	176	.11*	130	.08*
EBT	2	3200	209	.07	150	.05
EBR	1	1600	67	.04	61	.04
WBL	1	1600	41	.03	76	.05
WBT	2	3200	96	.03*	330	.10*
WBR	1	1600	63	.04	174	.11

TOTAL CAPACITY UTILIZATION .50 .57

84. Rice & Fifth

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	19	.01	38	.02*
NBT	2	3200	1147	.36*	1078	.34
NBR	1	1600	356	.22	262	.16
SBL	1	1600	20	.01*	19	.01
SBT	2	3200	905	.28	1417	.44*
SBR	1	1600	91	.06	208	.13
EBL	1	1600	110	.07	72	.05
EBT	2	3200	381	.12*	337	.11*
EBR	0	0	17		11	
WBL	1	1600	163	.10*	353	.22*
WBT	2	3200	264	.09	497	.17
WBR	0	0	17		39	
TOTAL CAPACITY UTILIZATION				**.59**		**.79**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	29	.02	45	.03*
NBT	2	3200	1241	.39*	1054	.33
NBR	1	1600	394	.25	226	.14
SBL	1	1600	20	.01*	21	.01
SBT	2	3200	883	.28	1513	.47*
SBR	1	1600	91	.06	208	.13
EBL	1	1600	120	.08	84	.05
EBT	2	3200	422	.14*	325	.11*
EBR	0	0	19		11	
WBL	1	1600	149	.09*	339	.21*
WBT	2	3200	281	.09	509	.17
WBR	0	0	17		39	
TOTAL CAPACITY UTILIZATION				**.63**		**.82**

85. Rice & Wooley

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	27	.02	85	.05*
NBT	2	3200	1150	.36*	1131	.35
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	896	.28	1417	.44*
SBR	1	1600	198	.12	375	.23
EBL	2	3200	454	.14*	371	.12*
EBT	0	0	0		0	
EBR	1	1600	38	.02	20	.01
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				**.50**		**.61**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	27	.02	87	.05*
NBT	2	3200	1344	.42*	1083	.34
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	944	.29	1494	.47*
SBR	1	1600	215	.13	382	.24
EBL	2	3200	503	.16*	361	.11*
EBT	0	0	0		0	
EBR	1	1600	38	.02	25	.02
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				**.58**		**.63**

86. Rice & Channel Islands

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	79	.05*	337	.21*
NBT	2	3200	574	.18	989	.31
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	692	.22*	853	.27*
SBR	d	1600	189	.12	711	.44
EBL	2	3200	491	.15*	202	.06*
EBT	0	0	0		0	
EBR	1	1600	124	.08	26	.02
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					SBR	.12*
TOTAL CAPACITY UTILIZATION				**.42**		**.66**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	79	.05*	308	.19*
NBT	2	3200	612	.19	955	.30
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	644	.20*	879	.27*
SBR	d	1600	194	.12	757	.47
EBL	2	3200	520	.16*	190	.06*
EBT	0	0	0		0	
EBR	1	1600	112	.07	31	.02
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					SBR	.15*
TOTAL CAPACITY UTILIZATION				**.41**		**.67**

87. SR-1/Rice NB & Pleasant Vly

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	96	.03*	391	.12*
NBT	1	1600	4	.02	9	.02
NBR	0	0	22		17	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	343	.21*	210	.13*
EBT	2	3200	1012	.32	706	.22
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	617	.22*	1372	.49*
WBR	0	0	88		187	
TOTAL CAPACITY UTILIZATION				**.46**		**.74**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	101	.03*	391	.12*
NBT	1	1600	4	.02	9	.02
NBR	0	0	27		17	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	350	.22*	208	.13*
EBT	2	3200	1002	.31	725	.23
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	622	.22*	1370	.49*
WBR	0	0	90		189	
TOTAL CAPACITY UTILIZATION				**.47**		**.74**

89. Rice & Hueneme

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	44	.03*	19	.01*
SBT	0	0	0		0	
SBR	f		166		152	
EBL	2	3200	132	.04	199	.06*
EBT	1	1600	450	.28*	481	.30
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	382	.24	711	.44*
WBR	f		27		100	
TOTAL CAPACITY UTILIZATION				**.31**		**.51**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	44	.03*	19	.01*
SBT	0	0	0		0	
SBR	f		125		171	
EBL	2	3200	146	.05*	182	.06*
EBT	1	1600	440	.28	495	.31
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	411	.26*	704	.44*
WBR	f		27		98	
TOTAL CAPACITY UTILIZATION				**.34**		**.51**

92. Del Norte & Camino Del Sol

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	55	.03*	169	.11*
NBT	2	3200	355	.11	558	.17
NBR	d	1600	10	.01	5	.00
SBL	1	1600	46	.03	42	.03
SBT	2	3200	444	.14*	361	.11*
SBR	1	1600	169	.11	194	.12
EBL	1	1600	158	.10*	270	.17*
EBT	1	1600	15	.01	10	.01
EBR	1	1600	94	.06	43	.03
WBL	0	0	10		21	
WBT	1	1600	7	.02*	20	.04*
WBR	0	0	8		16	
TOTAL CAPACITY UTILIZATION				**.29**		**.43**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03	179	.11*
NBT	2	3200	432	.14*	419	.13
NBR	d	1600	12	.01	5	.00
SBL	1	1600	44	.03*	40	.03
SBT	2	3200	365	.11	390	.12*
SBR	1	1600	119	.07	192	.12
EBL	1	1600	144	.09*	176	.11*
EBT	1	1600	15	.01	10	.01
EBR	1	1600	94	.06	43	.03
WBL	0	0	10		21	
WBT	1	1600	7	.02*	20	.04*
WBR	0	0	8		16	
TOTAL CAPACITY UTILIZATION				**.28**		**.38**

94. Del Norte & 5th St

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	1		0	
SBL	1	1600	72	.05*	55	.03*
SBT	0	0	0		0	
SBR	1	1600	192	.12	204	.13
EBL	1	1600	211	.13	135	.08*
EBT	1	1600	682	.43*	419	.26
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	242	.17	748	.52*
WBR	0	0	36		83	
Right Turn Adjustment					SBR	.04*
TOTAL CAPACITY UTILIZATION				**.48**		**.67**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	1		0	
SBL	1	1600	67	.04*	103	.06*
SBT	0	0	0		0	
SBR	1	1600	175	.11	238	.15
EBL	1	1600	259	.16	87	.05*
EBT	1	1600	656	.41*	421	.26
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	261	.21	717	.50*
WBR	0	0	70		88	
Right Turn Adjustment					SBR	.05*
TOTAL CAPACITY UTILIZATION				**.45**		**.66**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	466	0	214	0	1128	319	0	1179	306
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	518	0	238	0	1253	354	0	1310	340
RTOR Reduction (vph)	0	0	0	0	0	47	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	518	0	191	0	1253	354	0	1310	340
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				19.0		19.0		63.0	90.0		63.0	90.0
Effective Green, g (s)				20.0		20.0		64.0	90.0		64.0	90.0
Actuated g/C Ratio				0.22		0.22		0.71	1.00		0.71	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				763		352		3616	1583		2517	1583
v/s Ratio Prot				c0.15		0.12		0.25			c0.37	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.68		0.54		0.35	0.22		0.52	0.21
Uniform Delay, d1				32.1		31.0		5.0	0.0		6.0	0.0
Progression Factor				1.00		1.00		0.63	1.00		1.00	1.00
Incremental Delay, d2				2.4		1.7		0.2	0.3		0.8	0.3
Delay (s)				34.5		32.7		3.4	0.3		6.7	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			33.9			2.7			5.4	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	9.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	52.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.87						1.00	0.85		0.97	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1524						3539	1583		4910	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1524						3539	1583		4910	
Volume (vph)	234	0	180	0	0	0	0	1201	883	0	1308	391
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	269	0	207	0	0	0	0	1380	1015	0	1503	449
RTOR Reduction (vph)	0	29	0	0	0	0	0	0	0	0	41	0
Lane Group Flow (vph)	245	202	0	0	0	0	0	1380	1015	0	1911	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.7	17.7						64.3	90.0		64.3	
Effective Green, g (s)	18.7	18.7						65.3	90.0		65.3	
Actuated g/C Ratio	0.21	0.21						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	349	317						2568	1583		3562	
v/s Ratio Prot	0.15	0.13						0.39			0.39	
v/s Ratio Perm									c0.64			
v/c Ratio	0.70	0.64						0.54	0.64		0.54	
Uniform Delay, d1	33.1	32.5						5.6	0.0		5.5	
Progression Factor	1.00	1.00						1.00	1.00		0.62	
Incremental Delay, d2	6.3	4.1						0.8	2.0		0.5	
Delay (s)	39.3	36.7						6.4	2.0		3.9	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.1			0.0			4.5			3.9	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	52.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	577	2	26	81	63	0	0	91	26
Peak Hour Factor	0.93	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.93	0.93
Hourly flow rate (vph)	0	0	0	620	2	28	87	68	0	0	98	28

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	651	155	126
Volume Left (vph)	620	87	0
Volume Right (vph)	28	0	28
Hadj (s)	0.20	0.15	-0.10
Departure Headway (s)	5.0	6.1	5.9
Degree Utilization, x	0.90	0.26	0.21
Capacity (veh/h)	716	574	585
Control Delay (s)	34.9	11.2	10.4
Approach Delay (s)	34.9	11.2	10.4
Approach LOS	D	B	B

Intersection Summary			
Delay	27.7		
HCM Level of Service	D		
Intersection Capacity Utilization	54.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	23	1	232	0	0	0	0	116	282	51	623	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.95	0.95	0.95	0.87	0.87	0.87	0.87	0.95
Hourly flow rate (vph)	26	1	267	0	0	0	0	133	324	59	716	0

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total (vph)	294	457	775
Volume Left (vph)	26	0	59
Volume Right (vph)	267	324	0
Hadj (s)	-0.49	-0.39	0.05
Departure Headway (s)	6.1	5.5	5.7
Degree Utilization, x	0.50	0.69	1.22
Capacity (veh/h)	559	642	642
Control Delay (s)	15.1	19.9	131.6
Approach Delay (s)	15.1	19.9	131.6
Approach LOS	C	C	F

Intersection Summary			
Delay	75.6		
HCM Level of Service	F		
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	738	0	160	0	1212	319	0	1280	286
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	858	0	186	0	1409	371	0	1488	333
RTOR Reduction (vph)	0	0	0	0	0	24	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	858	0	162	0	1409	371	0	1488	333
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				28.2		28.2		53.8	90.0		53.8	90.0
Effective Green, g (s)				29.2		29.2		54.8	90.0		54.8	90.0
Actuated g/C Ratio				0.32		0.32		0.61	1.00		0.61	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1114		514		3096	1583		2155	1583
v/s Ratio Prot				c0.25		0.10		0.28			c0.42	
v/s Ratio Perm									0.23			0.21
v/c Ratio				0.77		0.31		0.46	0.23		0.69	0.21
Uniform Delay, d1				27.4		22.9		9.5	0.0		11.9	0.0
Progression Factor				1.00		1.00		0.55	1.00		1.00	1.00
Incremental Delay, d2				3.3		0.4		0.4	0.3		1.8	0.3
Delay (s)				30.7		23.2		5.6	0.3		13.7	0.3
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			29.4			4.5			11.3	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.89						1.00	0.85		0.98	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1560						3539	1583		4993	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1560						3539	1583		4993	
Volume (vph)	276	0	139	0	0	0	0	1342	747	0	1836	253
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	294	0	148	0	0	0	0	1428	795	0	1953	269
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	0	14	0
Lane Group Flow (vph)	231	200	0	0	0	0	0	1428	795	0	2208	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.0	17.0						65.0	90.0		65.0	
Effective Green, g (s)	18.0	18.0						66.0	90.0		66.0	
Actuated g/C Ratio	0.20	0.20						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	336	312						2595	1583		3662	
v/s Ratio Prot	c0.14	0.13						0.40			c0.44	
v/s Ratio Perm									0.50			
v/c Ratio	0.69	0.64						0.55	0.50		0.60	
Uniform Delay, d1	33.4	33.0						5.4	0.0		5.7	
Progression Factor	1.00	1.00						0.91	1.00		0.74	
Incremental Delay, d2	5.8	4.4						0.8	1.0		0.5	
Delay (s)	39.1	37.5						5.7	1.0		4.8	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.3			0.0			4.0			4.8	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	308	3	77	320	172	0	0	158	36
Peak Hour Factor	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Hourly flow rate (vph)	0	0	0	321	3	80	333	179	0	0	165	38

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	404	513	202
Volume Left (vph)	321	333	0
Volume Right (vph)	80	0	38
Hadj (s)	0.07	0.16	-0.08
Departure Headway (s)	6.0	5.8	6.0
Degree Utilization, x	0.67	0.82	0.34
Capacity (veh/h)	573	611	551
Control Delay (s)	20.5	29.5	12.1
Approach Delay (s)	20.5	29.5	12.1
Approach LOS	C	D	B

Intersection Summary			
Delay	23.1		
HCM Level of Service	C		
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	40	0	104	0	0	0	0	507	615	49	379	0
Peak Hour Factor	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Hourly flow rate (vph)	44	0	116	0	0	0	0	563	683	54	421	0

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total (vph)	160	1247	476
Volume Left (vph)	44	0	54
Volume Right (vph)	116	683	0
Hadj (s)	-0.34	-0.29	0.06
Departure Headway (s)	6.3	4.8	5.4
Degree Utilization, x	0.28	1.67	0.71
Capacity (veh/h)	544	754	653
Control Delay (s)	11.7	320.4	20.6
Approach Delay (s)	11.7	320.4	20.6
Approach LOS	B	F	C

Intersection Summary			
Delay	218.4		
HCM Level of Service	F		
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	504	0	216	0	1142	319	0	1220	304
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	560	0	240	0	1269	354	0	1356	338
RTOR Reduction (vph)	0	0	0	0	0	44	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	560	0	196	0	1269	354	0	1356	338
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				20.1		20.1		61.9	90.0		61.9	90.0
Effective Green, g (s)				21.1		21.1		62.9	90.0		62.9	90.0
Actuated g/C Ratio				0.23		0.23		0.70	1.00		0.70	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				805		371		3554	1583		2473	1583
v/s Ratio Prot				c0.16		0.12		0.25			c0.38	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.70		0.53		0.36	0.22		0.55	0.21
Uniform Delay, d1				31.5		30.1		5.4	0.0		6.6	0.0
Progression Factor				1.00		1.00		0.66	1.00		1.00	1.00
Incremental Delay, d2				2.6		1.4		0.2	0.3		0.9	0.3
Delay (s)				34.1		31.4		3.8	0.3		7.5	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			33.3			3.0			6.1	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	10.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	54.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.87						1.00	0.85		0.97	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1532						3539	1583		4912	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1532						3539	1583		4912	
Volume (vph)	241	0	168	0	0	0	0	1206	914	0	1370	403
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	277	0	193	0	0	0	0	1386	1051	0	1575	463
RTOR Reduction (vph)	0	27	0	0	0	0	0	0	0	0	41	0
Lane Group Flow (vph)	243	200	0	0	0	0	0	1386	1051	0	1997	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.5	17.5						64.5	90.0		64.5	
Effective Green, g (s)	18.5	18.5						65.5	90.0		65.5	
Actuated g/C Ratio	0.21	0.21						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	346	315						2576	1583		3575	
v/s Ratio Prot	0.14	0.13						0.39			0.41	
v/s Ratio Perm									c0.66			
v/c Ratio	0.70	0.63						0.54	0.66		0.56	
Uniform Delay, d1	33.2	32.7						5.5	0.0		5.6	
Progression Factor	1.00	1.00						1.00	1.00		0.65	
Incremental Delay, d2	6.3	4.1						0.8	2.2		0.5	
Delay (s)	39.5	36.8						6.3	2.2		4.2	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.2			0.0			4.5			4.2	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	325	3	72	325	390	0	0	163	43
Peak Hour Factor	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Hourly flow rate (vph)	0	0	0	339	3	75	339	406	0	0	170	45

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	417	745	215
Volume Left (vph)	339	339	0
Volume Right (vph)	75	0	45
Hadj (s)	0.09	0.12	-0.09
Departure Headway (s)	6.3	5.9	6.3
Degree Utilization, x	0.73	1.22	0.38
Capacity (veh/h)	562	620	551
Control Delay (s)	24.6	133.4	13.0
Approach Delay (s)	24.6	133.4	13.0
Approach LOS	C	F	B

Intersection Summary			
Delay	81.7		
HCM Level of Service	F		
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	40	0	118	0	0	0	0	721	634	49	401	0
Peak Hour Factor	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Hourly flow rate (vph)	44	0	131	0	0	0	0	801	704	54	446	0

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total (vph)	176	1506	500
Volume Left (vph)	44	0	54
Volume Right (vph)	131	704	0
Hadj (s)	-0.36	-0.25	0.06
Departure Headway (s)	6.3	5.0	5.5
Degree Utilization, x	0.31	2.08	0.76
Capacity (veh/h)	542	724	647
Control Delay (s)	12.1	503.7	23.4
Approach Delay (s)	12.1	503.7	23.4
Approach LOS	B	F	C

Intersection Summary			
Delay	354.0		
HCM Level of Service	F		
Intersection Capacity Utilization	92.9%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	731	0	167	0	1210	341	0	1280	286
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	850	0	194	0	1407	397	0	1488	333
RTOR Reduction (vph)	0	0	0	0	0	24	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	850	0	170	0	1407	397	0	1488	333
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				28.1		28.1		53.9	90.0		53.9	90.0
Effective Green, g (s)				29.1		29.1		54.9	90.0		54.9	90.0
Actuated g/C Ratio				0.32		0.32		0.61	1.00		0.61	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1110		512		3102	1583		2159	1583
v/s Ratio Prot				c0.25		0.11		0.28			c0.42	
v/s Ratio Perm									0.25			0.21
v/c Ratio				0.77		0.33		0.45	0.25		0.69	0.21
Uniform Delay, d1				27.4		23.1		9.5	0.0		11.8	0.0
Progression Factor				1.00		1.00		0.61	1.00		1.00	1.00
Incremental Delay, d2				3.2		0.4		0.4	0.3		1.8	0.3
Delay (s)				30.6		23.5		6.1	0.3		13.6	0.3
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			29.3			4.9			11.2	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.89						1.00	0.85		0.98	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1559						3539	1583		4989	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1559						3539	1583		4989	
Volume (vph)	274	0	139	0	0	0	0	1361	749	0	1819	263
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	291	0	148	0	0	0	0	1448	797	0	1935	280
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	0	14	0
Lane Group Flow (vph)	230	198	0	0	0	0	0	1448	797	0	2201	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.0	17.0						65.0	90.0		65.0	
Effective Green, g (s)	18.0	18.0						66.0	90.0		66.0	
Actuated g/C Ratio	0.20	0.20						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	336	312						2595	1583		3659	
v/s Ratio Prot	c0.14	0.13						0.41			c0.44	
v/s Ratio Perm									0.50			
v/c Ratio	0.68	0.63						0.56	0.50		0.60	
Uniform Delay, d1	33.4	33.0						5.4	0.0		5.7	
Progression Factor	1.00	1.00						1.19	1.00		0.74	
Incremental Delay, d2	5.7	4.2						0.8	1.0		0.5	
Delay (s)	39.0	37.2						7.2	1.0		4.7	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.1			0.0			5.0			4.7	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	325	3	72	325	390	0	0	163	43
Peak Hour Factor	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Hourly flow rate (vph)	0	0	0	339	3	75	339	406	0	0	170	45

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	417	745	215
Volume Left (vph)	339	339	0
Volume Right (vph)	75	0	45
Hadj (s)	0.09	0.12	-0.09
Departure Headway (s)	6.3	5.9	6.3
Degree Utilization, x	0.73	1.22	0.38
Capacity (veh/h)	562	620	551
Control Delay (s)	24.6	133.4	13.0
Approach Delay (s)	24.6	133.4	13.0
Approach LOS	C	F	B

Intersection Summary			
Delay	81.7		
HCM Level of Service	F		
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	40	0	118	0	0	0	0	721	634	49	401	0
Peak Hour Factor	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Hourly flow rate (vph)	44	0	131	0	0	0	0	801	704	54	446	0

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total (vph)	176	1506	500
Volume Left (vph)	44	0	54
Volume Right (vph)	131	704	0
Hadj (s)	-0.36	-0.25	0.06
Departure Headway (s)	6.3	5.0	5.5
Degree Utilization, x	0.31	2.08	0.76
Capacity (veh/h)	542	724	647
Control Delay (s)	12.1	503.7	23.4
Approach Delay (s)	12.1	503.7	23.4
Approach LOS	B	F	C

Intersection Summary			
Delay	354.0		
HCM Level of Service	F		
Intersection Capacity Utilization	92.9%	ICU Level of Service	F
Analysis Period (min)	15		

65. Rose & Gonzales

Year 2010 W/Project Phase 1 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	274	.09	394	.12*
NBT	3	4800	1163	.24*	1248	.26
NBR	1	1600	204	.13	128	.08
SBL	2	3200	378	.12*	304	.10
SBT	3	4800	1047	.22	1501	.31*
SBR	1	1600	280	.18	610	.38
EBL	2	3200	738	.23*	579	.18*
EBT	3	4800	950	.20	611	.13
EBR	1	1600	274	.17	207	.13
WBL	1	1600	87	.05	138	.09
WBT	4	6400	372	.06*	1180	.18*
WBR	1	1600	155	.10	290	.18
TOTAL CAPACITY UTILIZATION				**.65**		**.79**

66. Rose & Camino del Sol

Year 2010 W/Project Phase 1 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	131	.08*	94	.06*
NBT	3	4800	1210	.30	1313	.30
NBR	0	0	216		140	
SBL	1	1600	221	.14	140	.09
SBT	2	3200	1220	.38*	1285	.40*
SBR	f		84		247	
EBL	1	1600	194	.12	142	.09
EBT	2	3200	290	.13*	179	.09*
EBR	0	0	135		93	
WBL	1	1600	152	.10*	275	.17*
WBT	2	3200	147	.05	517	.16
WBR	1	1600	100	.06	273	.17
TOTAL CAPACITY UTILIZATION				**.69**		**.72**

84. Rice & Fifth

Year 2010 W/Project Phase 1 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	29	.02	45	.03*
NBT	2	3200	1241	.39*	1054	.33
NBR	1	1600	394	.25	226	.14
SBL	1	1600	20	.01*	21	.01
SBT	3	4800	883	.20	1513	.36*
SBR	0	0	91		208	
EBL	1	1600	120	.08	84	.05
EBT	2	3200	422	.14*	325	.11*
EBR	0	0	19		11	
WBL	1	1600	149	.09*	339	.21*
WBT	2	3200	281	.09	509	.17
WBR	0	0	17		39	
TOTAL CAPACITY UTILIZATION				**.63**		**.71**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					3.0			3.0			3.0	
Lane Util. Factor					1.00			1.00			1.00	
Frt					1.00			1.00			0.97	
Flt Protected					0.95			0.97			1.00	
Satd. Flow (prot)					1771			1812			1814	
Flt Permitted					0.95			0.78			1.00	
Satd. Flow (perm)					1771			1455			1814	
Volume (vph)	0	0	0	680	2	16	88	70	0	0	127	31
Peak-hour factor, PHF	0.93	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.93	0.93
Adj. Flow (vph)	0	0	0	731	2	17	95	75	0	0	137	33
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	11	0
Lane Group Flow (vph)	0	0	0	0	748	0	0	170	0	0	159	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)					31.2			25.8			25.8	
Effective Green, g (s)					32.2			26.8			26.8	
Actuated g/C Ratio					0.50			0.41			0.41	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					877			600			748	
v/s Ratio Prot											0.09	
v/s Ratio Perm					0.42			c0.12				
v/c Ratio					0.85			0.28			0.21	
Uniform Delay, d1					14.3			12.7			12.3	
Progression Factor					1.00			0.89			1.00	
Incremental Delay, d2					8.1			1.2			0.7	
Delay (s)					22.4			12.5			13.0	
Level of Service					C			B			B	
Approach Delay (s)		0.0			22.4			12.5			13.0	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	19.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0						3.0	3.0		3.0	
Lane Util. Factor		1.00						1.00	1.00		1.00	
Frt		0.88						1.00	0.85		1.00	
Flt Protected		1.00						1.00	1.00		1.00	
Satd. Flow (prot)		1626						1863	1583		1857	
Flt Permitted		1.00						1.00	1.00		0.98	
Satd. Flow (perm)		1626						1863	1583		1821	
Volume (vph)	23	1	260	0	0	0	0	130	292	51	857	0
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.95	0.95	0.95	0.87	0.87	0.87	0.87	0.95
Adj. Flow (vph)	26	1	299	0	0	0	0	149	336	59	985	0
RTOR Reduction (vph)	0	118	0	0	0	0	0	0	98	0	0	0
Lane Group Flow (vph)	0	208	0	0	0	0	0	149	238	0	1044	0
Turn Type	Perm								Perm	Perm		
Protected Phases		4						2			6	
Permitted Phases	4								2	6		
Actuated Green, G (s)		12.0						45.0	45.0		45.0	
Effective Green, g (s)		13.0						46.0	46.0		46.0	
Actuated g/C Ratio		0.20						0.71	0.71		0.71	
Clearance Time (s)		4.0						4.0	4.0		4.0	
Vehicle Extension (s)		3.0						3.0	3.0		3.0	
Lane Grp Cap (vph)		325						1318	1120		1289	
v/s Ratio Prot								0.08				
v/s Ratio Perm		0.13							0.15		c0.57	
v/c Ratio		0.64						0.11	0.21		0.81	
Uniform Delay, d1		23.9						3.0	3.3		6.5	
Progression Factor		1.00						1.00	1.00		1.51	
Incremental Delay, d2		4.3						0.2	0.4		4.4	
Delay (s)		28.1						3.2	3.7		14.2	
Level of Service		C						A	A		B	
Approach Delay (s)		28.1			0.0			3.5			14.2	
Approach LOS		C			A			A			B	

Intersection Summary

HCM Average Control Delay	13.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	93.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					3.0			3.0			3.0	
Lane Util. Factor					1.00			1.00			1.00	
Frt					0.98			1.00			0.97	
Flt Protected					0.96			0.98			1.00	
Satd. Flow (prot)					1747			1821			1810	
Flt Permitted					0.96			0.75			1.00	
Satd. Flow (perm)					1747			1392			1810	
Volume (vph)	0	0	0	325	3	72	325	390	0	0	163	43
Peak-hour factor, PHF	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Adj. Flow (vph)	0	0	0	339	3	75	339	406	0	0	170	45
RTOR Reduction (vph)	0	0	0	0	12	0	0	0	0	0	14	0
Lane Group Flow (vph)	0	0	0	0	405	0	0	745	0	0	201	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)					17.0			40.0			40.0	
Effective Green, g (s)					18.0			41.0			41.0	
Actuated g/C Ratio					0.28			0.63			0.63	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					484			878			1142	
v/s Ratio Prot											0.11	
v/s Ratio Perm					0.23			c0.54				
v/c Ratio					0.84			0.85			0.18	
Uniform Delay, d1					22.1			9.5			5.0	
Progression Factor					1.00			0.71			1.00	
Incremental Delay, d2					11.9			8.7			0.3	
Delay (s)					34.0			15.5			5.3	
Level of Service					C			B			A	
Approach Delay (s)		0.0			34.0			15.5			5.3	
Approach LOS		A			C			B			A	

Intersection Summary

HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0						3.0	3.0		3.0	
Lane Util. Factor		1.00						1.00	1.00		1.00	
Frt		0.90						1.00	0.85		1.00	
Flt Protected		0.99						1.00	1.00		0.99	
Satd. Flow (prot)		1654						1863	1583		1853	
Flt Permitted		0.99						1.00	1.00		0.88	
Satd. Flow (perm)		1654						1863	1583		1644	
Volume (vph)	40	0	118	0	0	0	0	721	634	49	401	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Adj. Flow (vph)	44	0	131	0	0	0	0	801	704	54	446	0
RTOR Reduction (vph)	0	115	0	0	0	0	0	0	149	0	0	0
Lane Group Flow (vph)	0	60	0	0	0	0	0	801	555	0	500	0
Turn Type	Perm								Perm	Perm		
Protected Phases		4						2			6	
Permitted Phases	4								2	6		
Actuated Green, G (s)		6.8						50.2	50.2		50.2	
Effective Green, g (s)		7.8						51.2	51.2		51.2	
Actuated g/C Ratio		0.12						0.79	0.79		0.79	
Clearance Time (s)		4.0						4.0	4.0		4.0	
Vehicle Extension (s)		3.0						3.0	3.0		3.0	
Lane Grp Cap (vph)		198						1467	1247		1295	
v/s Ratio Prot								c0.43				
v/s Ratio Perm		0.04							0.35		0.30	
v/c Ratio		0.30						0.55	0.44		0.39	
Uniform Delay, d1		26.1						2.6	2.3		2.1	
Progression Factor		1.00						1.00	1.00		0.83	
Incremental Delay, d2		0.9						1.5	1.2		0.7	
Delay (s)		27.0						4.0	3.4		2.4	
Level of Service		C						A	A		A	
Approach Delay (s)		27.0			0.0			3.7			2.4	
Approach LOS		C			A			A			A	

Intersection Summary

HCM Average Control Delay	5.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	82.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

20. Ventura & Gonzales

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	152	.10	217	.14*
NBT	2	3200	694	.22*	821	.26
NBR	1	1600	327	.20	392	.25
SBL	1	1600	105	.07*	154	.10
SBT	3	4800	633	.15	1123	.25*
SBR	0	0	91		80	
EBL	1	1600	172	.11*	164	.10
EBT	2	3200	335	.10	436	.14*
EBR	1	1600	67	.04	124	.08
WBL	2	3200	226	.07	611	.19*
WBT	2	3200	327	.12*	512	.19
WBR	0	0	49		98	
TOTAL CAPACITY UTILIZATION				**.52**		**.72**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	141	.09	239	.15*
NBT	2	3200	739	.23*	843	.26
NBR	1	1600	316	.20	386	.24
SBL	1	1600	111	.07*	160	.10
SBT	3	4800	672	.16	1117	.25*
SBR	0	0	91		80	
EBL	1	1600	172	.11*	175	.11*
EBT	2	3200	363	.11	442	.14
EBR	1	1600	61	.04	124	.08
WBL	2	3200	215	.07	540	.17
WBT	2	3200	327	.12*	512	.20*
WBR	0	0	55		115	
TOTAL CAPACITY UTILIZATION				**.53**		**.71**

24. Ventura & Wooley

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	122	.08	130	.08
NBT	2	3200	979	.33*	1111	.37*
NBR	0	0	65		81	
SBL	1	1600	227	.14*	269	.17*
SBT	2	3200	803	.27	1130	.40
SBR	0	0	71		143	
EBL	1	1600	207	.13	175	.11*
EBT	2	3200	623	.19*	559	.17
EBR	1	1600	79	.05	77	.05
WBL	1	1600	113	.07*	273	.17
WBT	2	3200	388	.12	803	.25*
WBR	1	1600	161	.10	206	.13
TOTAL CAPACITY UTILIZATION				**.73**		**.90**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	122	.08	130	.08
NBT	2	3200	985	.33*	1117	.37*
NBR	0	0	71		75	
SBL	1	1600	216	.14*	269	.17*
SBT	2	3200	809	.27	1108	.39
SBR	0	0	65		143	
EBL	1	1600	196	.12	175	.11*
EBT	2	3200	662	.21*	565	.18
EBR	1	1600	90	.06	77	.05
WBL	1	1600	113	.07*	273	.17
WBT	2	3200	388	.12	837	.26*
WBR	1	1600	150	.09	206	.13
TOTAL CAPACITY UTILIZATION				**.75**		**.91**

45. Oxnard & Vineyard

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	82	.03	253	.08
NBT	2	3200	752	.24*	1077	.34*
NBR	2	3200	783	.24	804	.25
SBL	2	3200	99	.03*	181	.06*
SBT	3	4800	774	.18	1036	.26
SBR	0	0	86		209	
EBL	1.5		259	.16	257	
EBT	2.5	6400	1025	.21*	603	.13*
EBR	1	1600	164	.10	128	.08
WBL	3	4800	537	.11	860	.18
WBT	2	3200	413	.13*	964	.31*
WBR	0	0	15		23	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .61 .84

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	88	.03	298	.09
NBT	2	3200	808	.25*	1088	.34*
NBR	2	3200	766	.24	832	.26
SBL	2	3200	99	.03*	181	.06*
SBT	3	4800	864	.20	1042	.26
SBR	0	0	86		198	
EBL	1.5		270	.17	263	
EBT	2.5	6400	1199	.25*	631	.14*
EBR	1	1600	170	.11	128	.08
WBL	3	4800	610	.13	860	.18
WBT	2	3200	413	.13*	964	.31*
WBR	0	0	15		23	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .66 .85

46. Oxnard & Gonzales

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	101	.03	180	.06*
NBT	3	4800	863	.18*	1111	.23
NBR	1	1600	351	.22	307	.19
SBL	2	3200	318	.10*	407	.13
SBT	3	4800	1132	.24	1446	.30*
SBR	1	1600	61	.04	114	.07
EBL	2	3200	244	.08	251	.08
EBT	2	3200	919	.29*	941	.29*
EBR	1	1600	59	.04	130	.08
WBL	2	3200	266	.08*	370	.12*
WBT	3	4800	748	.16	1212	.25
WBR	1	1600	364	.23	431	.27

TOTAL CAPACITY UTILIZATION .65 .77

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	101	.03	174	.05
NBT	3	4800	897	.19*	1167	.24*
NBR	1	1600	334	.21	307	.19
SBL	2	3200	430	.13*	407	.13*
SBT	3	4800	1194	.25	1418	.30
SBR	1	1600	61	.04	114	.07
EBL	2	3200	250	.08	245	.08
EBT	2	3200	925	.29*	1008	.32*
EBR	1	1600	70	.04	136	.09
WBL	2	3200	255	.08*	381	.12*
WBT	3	4800	737	.15	1296	.27
WBR	1	1600	364	.23	425	.27

TOTAL CAPACITY UTILIZATION .69 .81

65. Rose & Gonzales

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	270	.08	397	.12*
NBT	3	4800	1089	.23*	1230	.26
NBR	1	1600	296	.19	197	.12
SBL	2	3200	286	.09*	291	.09
SBT	3	4800	1092	.23	1524	.32*
SBR	1	1600	300	.19	596	.37
EBL	2	3200	597	.19*	553	.17*
EBT	3	4800	880	.18	586	.12
EBR	1	1600	280	.18	232	.15
WBL	1	1600	101	.06	202	.13
WBT	4	6400	363	.06*	1201	.19*
WBR	1	1600	157	.10	339	.21

TOTAL CAPACITY UTILIZATION .57 .80

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	287	.09	391	.12*
NBT	3	4800	1201	.25*	1336	.28
NBR	1	1600	240	.15	191	.12
SBL	2	3200	460	.14*	291	.09
SBT	3	4800	1103	.23	1546	.32*
SBR	1	1600	261	.16	596	.37
EBL	2	3200	748	.23*	553	.17*
EBT	3	4800	1082	.23	648	.14
EBR	1	1600	330	.21	232	.15
WBL	1	1600	107	.07	135	.08
WBT	4	6400	419	.07*	1347	.21*
WBR	1	1600	185	.12	345	.22

TOTAL CAPACITY UTILIZATION .69 .82

66. Rose & Camino del Sol

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	140	.09*	135	.08*
NBT	3	4800	1224	.29	1376	.31
NBR	0	0	170		121	
SBL	1	1600	196	.12	127	.08
SBT	2	3200	1380	.43*	1382	.43*
SBR	f		93		231	
EBL	1	1600	192	.12	150	.09
EBT	2	3200	294	.14*	190	.09*
EBR	0	0	157		93	
WBL	1	1600	156	.10*	282	.18*
WBT	2	3200	139	.04	467	.15
WBR	1	1600	103	.06	267	.17

TOTAL CAPACITY UTILIZATION .76 .78

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	140	.09*	101	.06*
NBT	3	4800	1291	.31	1410	.32
NBR	0	0	204		121	
SBL	1	1600	280	.18	138	.09
SBT	2	3200	1313	.41*	1376	.43*
SBR	f		99		214	
EBL	1	1600	203	.13	161	.10*
EBT	2	3200	361	.16*	184	.08
EBR	0	0	146		87	
WBL	1	1600	156	.10*	316	.20
WBT	2	3200	145	.05	601	.19*
WBR	1	1600	114	.07	329	.21

TOTAL CAPACITY UTILIZATION .76 .78

68. Rose & 5th

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	15	.01*	39	.02*
NBT	3	4800	1217	.29	1366	.30
NBR	0	0	154		76	
SBL	1	1600	34	.02	24	.02
SBT	3	4800	1370	.32*	1425	.34*
SBR	0	0	158		209	
EBL	2	3200	218	.07	307	.10
EBT	1	1600	511	.32*	412	.26*
EBR	1	1600	40	.03	62	.04
WBL	1	1600	148	.09*	273	.17*
WBT	2	3200	250	.08	614	.22
WBR	0	0	21		94	
TOTAL CAPACITY UTILIZATION				**.74**		**.79**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	15	.01	39	.02*
NBT	3	4800	1256	.31*	1344	.29
NBR	0	0	221		70	
SBL	1	1600	34	.02*	30	.02
SBT	3	4800	1331	.31	1414	.34*
SBR	0	0	147		215	
EBL	2	3200	235	.07	352	.11
EBT	1	1600	561	.35*	378	.24*
EBR	1	1600	40	.03	56	.04
WBL	1	1600	154	.10*	357	.22*
WBT	2	3200	256	.09	670	.24
WBR	0	0	21		100	
TOTAL CAPACITY UTILIZATION				**.78**		**.82**

69. Rose & Wooley

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	41	.03*	51	.03*
NBT	2	3200	1104	.35	989	.31
NBR	1	1600	102	.06	72	.05
SBL	1	1600	24	.02	16	.01
SBT	2	3200	1193	.37*	1394	.44*
SBR	f		391		421	
EBL	2	3200	278	.09	377	.12*
EBT	2	3200	369	.13*	250	.10
EBR	0	0	42		62	
WBL	1	1600	68	.04*	128	.08
WBT	2	3200	140	.05	424	.14*
WBR	0	0	16		28	
TOTAL CAPACITY UTILIZATION				**.57**		**.73**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	35	.02*	51	.03*
NBT	2	3200	1154	.36	989	.31
NBR	1	1600	102	.06	72	.05
SBL	1	1600	30	.02	22	.01
SBT	2	3200	1171	.37*	1416	.44*
SBR	f		374		449	
EBL	2	3200	328	.10	366	.11*
EBT	2	3200	341	.12*	239	.09
EBR	0	0	36		62	
WBL	1	1600	102	.06*	150	.09
WBT	2	3200	129	.05	430	.14*
WBR	0	0	16		28	
TOTAL CAPACITY UTILIZATION				**.57**		**.72**

71. Rose & Oxnard

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	166	.10*	224	.14*
NBT	2	3200	913	.29	909	.28
NBR	1	1600	26	.02	16	.01
SBL	2	3200	46	.01	62	.02
SBT	2	3200	813	.25*	1126	.35*
SBR	f		32		52	
EBL	0	0	0		0	
EBT	2	3200	283	.09*	182	.06
EBR	f		200		241	
WBL	0	0	1		0	
WBT	2	3200	200	.06	636	.20*
WBR	f		67		86	
TOTAL CAPACITY UTILIZATION				**.44**		**.69**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	160	.10*	224	.14*
NBT	2	3200	941	.29	903	.28
NBR	1	1600	26	.02	16	.01
SBL	2	3200	63	.02	79	.02
SBT	2	3200	785	.25*	1143	.36*
SBR	f		32		52	
EBL	0	0	0		0	
EBT	2	3200	289	.09*	188	.06
EBR	f		200		241	
WBL	0	0	1		0	
WBT	2	3200	217	.07	647	.20*
WBR	f		78		92	
TOTAL CAPACITY UTILIZATION				**.44**		**.70**

72. Rose & Channel Islands

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	193	.06	317	.10
NBT	2	3200	773	.24*	474	.15*
NBR	1	1600	151	.09	65	.04
SBL	1	1600	96	.06*	178	.11*
SBT	3	4800	857	.21	482	.15
SBR	0	0	153		321	.20
EBL	2	3200	394	.12	395	.12*
EBT	2	3200	605	.19*	409	.13
EBR	1	1600	209	.13	197	.12
WBL	2	3200	208	.07*	311	.10
WBT	2	3200	329	.10	768	.24*
WBR	1	1600	6	.00	9	.01
TOTAL CAPACITY UTILIZATION				**.56**		**.62**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	187	.06	311	.10
NBT	2	3200	801	.25*	474	.15*
NBR	1	1600	173	.11	71	.04
SBL	1	1600	96	.06*	178	.11*
SBT	3	4800	835	.20	510	.16
SBR	0	0	142		310	.19
EBL	2	3200	394	.12	389	.12*
EBT	2	3200	616	.19*	431	.13
EBR	1	1600	209	.13	191	.12
WBL	2	3200	219	.07*	322	.10
WBT	2	3200	351	.11	824	.26*
WBR	1	1600	6	.00	9	.01
TOTAL CAPACITY UTILIZATION				**.57**		**.64**

73. Rose & Bard

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	39	.02	63	.04
NBT	2	3200	849	.27*	710	.22*
NBR	1	1600	17	.01	22	.01
SBL	1	1600	176	.11*	92	.06*
SBT	2	3200	821	.26	689	.22
SBR	1	1600	155	.10	347	.22
EBL	1	1600	241	.15*	170	.11*
EBT	2	3200	205	.08	174	.07
EBR	0	0	39		60	
WBL	1	1600	14	.01	16	.01
WBT	2	3200	125	.08*	364	.16*
WBR	0	0	172	.11	154	
TOTAL CAPACITY UTILIZATION				**.61**		**.55**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	45	.03	74	.05
NBT	2	3200	877	.27*	688	.22*
NBR	1	1600	17	.01	22	.01
SBL	1	1600	182	.11*	98	.06*
SBT	2	3200	821	.26	706	.22
SBR	1	1600	144	.09	358	.22
EBL	1	1600	247	.15*	187	.12*
EBT	2	3200	205	.08	180	.08
EBR	0	0	45		60	
WBL	1	1600	20	.01	16	.01
WBT	2	3200	142	.09*	370	.17*
WBR	0	0	178	.11	160	
TOTAL CAPACITY UTILIZATION				**.62**		**.57**

74. Rose & Pleasant Valley

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	62	.04	101	.06
NBT	2	3200	362	.11*	476	.15*
NBR	1	1600	81	.05	132	.08
SBL	1	1600	174	.11*	137	.09*
SBT	2	3200	481	.15	379	.12
SBR	1	1600	230	.14	284	.18
EBL	1	1600	278	.17*	238	.15*
EBT	2	3200	682	.21	483	.15
EBR	1	1600	61	.04	55	.03
WBL	1	1600	138	.09	124	.08
WBT	2	3200	547	.17*	745	.23*
WBR	1	1600	119	.07	107	.07
TOTAL CAPACITY UTILIZATION				**.56**		**.62**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	62	.04	118	.07
NBT	2	3200	308	.10*	493	.15*
NBR	1	1600	81	.05	121	.08
SBL	1	1600	174	.11*	143	.09*
SBT	2	3200	481	.15	441	.14
SBR	1	1600	152	.10	284	.18
EBL	1	1600	317	.20*	238	.15*
EBT	2	3200	671	.21	382	.12
EBR	1	1600	72	.05	33	.02
WBL	1	1600	127	.08	102	.06
WBT	2	3200	435	.14*	723	.23*
WBR	1	1600	155	.10	152	.10
TOTAL CAPACITY UTILIZATION				**.55**		**.62**

78. Bard & Pleasant Valley

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	3		3	
NBT	1	1600	3	.01*	3	.01*
NBR	0	0	15		14	
SBL	1.5		266		217	
SBT	0.5	3200	4	.08*	11	.07*
SBR	1	1600	21	.01	24	.02
EBL	1	1600	38	.02*	44	.03*
EBT	2	3200	913	.29	739	.23
EBR	0	0	7		3	
WBL	1	1600	20	.01	30	.02
WBT	2	3200	724	.34*	938	.45*
WBR	0	0	361		487	

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .45 .56

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	3		3	
NBT	1	1600	3	.01*	3	.01*
NBR	0	0	15		14	
SBL	1.5		266		228	
SBT	0.5	3200	4	.08*	11	.07*
SBR	1	1600	27	.02	30	.02
EBL	1	1600	38	.02*	44	.03*
EBT	2	3200	913	.29	745	.23
EBR	0	0	7		3	
WBL	1	1600	20	.01	30	.02
WBT	2	3200	724	.35*	921	.45*
WBR	0	0	389		504	

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .46 .56

82. Rice & Camino Del Sol

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	104	.07*	164	.10
NBT	3	4800	1029	.21	1451	.30*
NBR	1	1600	64	.04	46	.03
SBL	1	1600	192	.12	194	.12*
SBT	3	4800	1229	.26*	1366	.28
SBR	d	1600	278	.17	257	.16
EBL	1	1600	191	.12*	232	.15*
EBT	2	3200	220	.07	327	.10
EBR	1	1600	57	.04	57	.04
WBL	1	1600	33	.02	60	.04
WBT	2	3200	150	.05*	289	.09*
WBR	1	1600	119	.07	146	.09

TOTAL CAPACITY UTILIZATION .50 .66

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	76	.05	153	.10*
NBT	3	4800	1460	.30*	1378	.29
NBR	1	1600	64	.04	40	.03
SBL	1	1600	198	.12*	127	.08
SBT	3	4800	1151	.24	1646	.34*
SBR	d	1600	216	.14	291	.18
EBL	1	1600	275	.17*	193	.12*
EBT	2	3200	214	.07	153	.05
EBR	1	1600	51	.03	63	.04
WBL	1	1600	33	.02	60	.04
WBT	2	3200	60	.02*	272	.09*
WBR	1	1600	97	.06	140	.09

TOTAL CAPACITY UTILIZATION .61 .65

84. Rice & Fifth

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	31	.02	60	.04*
NBT	2	3200	1339	.42*	1236	.39
NBR	1	1600	425	.27	331	.21
SBL	1	1600	18	.01*	17	.01
SBT	3	4800	1056	.23	1565	.36*
SBR	0	0	69		158	
EBL	1	1600	86	.05	57	.04
EBT	2	3200	448	.15*	444	.14*
EBR	0	0	16		8	
WBL	1	1600	276	.17*	471	.29*
WBT	2	3200	295	.10	510	.17
WBR	0	0	13		30	
TOTAL CAPACITY UTILIZATION				**.75**		**.83**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	53	.03	77	.05*
NBT	2	3200	1557	.49*	1180	.37
NBR	1	1600	515	.32	247	.15
SBL	1	1600	18	.01*	23	.01
SBT	3	4800	1006	.22	1789	.41*
SBR	0	0	69		158	
EBL	1	1600	108	.07	85	.05
EBT	2	3200	543	.18*	416	.13*
EBR	0	0	22		8	
WBL	1	1600	242	.15*	437	.27*
WBT	2	3200	334	.11	538	.18
WBR	0	0	13		30	
TOTAL CAPACITY UTILIZATION				**.83**		**.86**

85. Rice & Wooley

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	33	.02	87	.05*
NBT	2	3200	1191	.37*	1322	.41
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1030	.32	1541	.48*
SBR	1	1600	225	.14	420	.26
EBL	2	3200	533	.17*	448	.14*
EBT	0	0	0		0	
EBR	1	1600	51	.03	37	.02
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				**.54**		**.67**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	33	.02	93	.06*
NBT	2	3200	1644	.51*	1210	.38
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1142	.36	1720	.54*
SBR	1	1600	265	.17	437	.27
EBL	2	3200	647	.20*	426	.13*
EBT	0	0	0		0	
EBR	1	1600	51	.03	48	.03
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				**.71**		**.73**

86. Rice & Channel Islands

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	72	.05*	307	.19*
NBT	2	3200	604	.19	1098	.34
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	781	.24*	842	.26*
SBR	d	1600	238	.15	793	.50
EBL	2	3200	549	.17*	269	.08*
EBT	0	0	0		0	
EBR	1	1600	125	.08	37	.02
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					SBR	.18*
TOTAL CAPACITY UTILIZATION				**.46**		**.71**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	72	.05*	240	.15*
NBT	2	3200	694	.22	1020	.32
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	669	.21*	904	.28*
SBR	d	1600	249	.16	899	.56
EBL	2	3200	616	.19*	241	.08*
EBT	0	0	0		0	
EBR	1	1600	97	.06	48	.03
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					SBR	.22*
TOTAL CAPACITY UTILIZATION				**.45**		**.73**

87. SR-1/Rice NB & Pleasant Vly

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	97	.03*	364	.11*
NBT	1	1600	3	.02	7	.02
NBR	0	0	21		23	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	347	.22*	212	.13*
EBT	2	3200	1084	.34	890	.28
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	710	.25*	1461	.52*
WBR	0	0	103		200	
TOTAL CAPACITY UTILIZATION				**.50**		**.76**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	108	.03*	364	.11*
NBT	1	1600	3	.02	7	.02
NBR	0	0	32		23	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	364	.23*	206	.13*
EBT	2	3200	1062	.33	935	.29
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	721	.26*	1455	.52*
WBR	0	0	109		206	
TOTAL CAPACITY UTILIZATION				**.52**		**.76**

89. Rice & Hueneme

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	40	.03*	17	.01*
SBT	0	0	0		0	
SBR	f		297		180	
EBL	2	3200	182	.06*	328	.10*
EBT	1	1600	474	.30	571	.36
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	449	.28*	742	.46*
WBR	f		23		88	
TOTAL CAPACITY UTILIZATION				**.37**		**.57**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	40	.03*	17	.01*
SBT	0	0	0		0	
SBR	f		202		225	
EBL	2	3200	216	.07*	289	.09*
EBT	1	1600	452	.28	605	.38
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	516	.32*	725	.45*
WBR	f		23		82	
TOTAL CAPACITY UTILIZATION				**.42**		**.55**

92. Del Norte & Camino Del Sol

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	69	.04*	155	.10
NBT	2	3200	434	.14	706	.22*
NBR	d	1600	10	.01	7	.00
SBL	1	1600	42	.03	46	.03*
SBT	2	3200	506	.16*	448	.14
SBR	1	1600	193	.12	210	.13
EBL	1	1600	154	.10*	325	.20*
EBT	1	1600	13	.01	10	.01
EBR	1	1600	73	.05	35	.02
WBL	0	0	10		18	
WBT	1	1600	8	.02*	18	.03*
WBR	0	0	9		15	
TOTAL CAPACITY UTILIZATION				**.32**		**.48**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	58	.04	177	.11*
NBT	2	3200	613	.19*	381	.12
NBR	d	1600	16	.01	7	.00
SBL	1	1600	36	.02*	40	.03
SBT	2	3200	321	.10	515	.16*
SBR	1	1600	75	.05	204	.13
EBL	1	1600	120	.08*	107	.07*
EBT	1	1600	13	.01	10	.01
EBR	1	1600	73	.05	35	.02
WBL	0	0	10		18	
WBT	1	1600	8	.02*	18	.03*
WBR	0	0	9		15	
TOTAL CAPACITY UTILIZATION				**.31**		**.37**

94. Del Norte & 5th St

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	3		0	
SBL	1	1600	71	.04*	56	.04*
SBT	0	0	0		0	
SBR	1	1600	244	.15	269	.17
EBL	1	1600	228	.14	194	.12*
EBT	1	1600	751	.47*	518	.32
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	265	.19	847	.58*
WBR	0	0	40		89	
Right Turn Adjustment					SBR	.04*
TOTAL CAPACITY UTILIZATION				**.51**		**.78**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	3		0	
SBL	1	1600	60	.04*	168	.11*
SBT	0	0	0		0	
SBR	1	1600	205	.13	347	.22
EBL	1	1600	340	.21*	82	.05*
EBT	1	1600	689	.43	524	.33
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	310	.27*	774	.55*
WBR	0	0	118		100	
Right Turn Adjustment					SBR	.07*
TOTAL CAPACITY UTILIZATION				**.52**		**.78**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	477	0	221	0	1129	319	0	1212	306
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	530	0	246	0	1254	354	0	1347	340
RTOR Reduction (vph)	0	0	0	0	0	46	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	530	0	200	0	1254	354	0	1347	340
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				19.3		19.3		62.7	90.0		62.7	90.0
Effective Green, g (s)				20.3		20.3		63.7	90.0		63.7	90.0
Actuated g/C Ratio				0.23		0.23		0.71	1.00		0.71	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				774		357		3599	1583		2505	1583
v/s Ratio Prot				c0.15		0.13		0.25			c0.38	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.68		0.56		0.35	0.22		0.54	0.21
Uniform Delay, d1				31.9		30.9		5.1	0.0		6.2	0.0
Progression Factor				1.00		1.00		0.58	1.00		1.00	1.00
Incremental Delay, d2				2.5		1.9		0.2	0.3		0.8	0.3
Delay (s)				34.4		32.8		3.2	0.3		7.0	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			33.9			2.5			5.7	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	9.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	53.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.85						1.00	0.85		0.96	
Flt Protected	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1504						3539	1583		4900	
Flt Permitted	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1504						3539	1583		4900	
Volume (vph)	194	0	202	0	0	0	0	1234	941	0	1400	451
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	223	0	232	0	0	0	0	1418	1082	0	1609	518
RTOR Reduction (vph)	0	25	0	0	0	0	0	0	0	0	44	0
Lane Group Flow (vph)	223	207	0	0	0	0	0	1418	1082	0	2083	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.0	17.0						65.0	90.0		65.0	
Effective Green, g (s)	18.0	18.0						66.0	90.0		66.0	
Actuated g/C Ratio	0.20	0.20						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	336	301						2595	1583		3593	
v/s Ratio Prot	0.13	0.14						0.40			0.43	
v/s Ratio Perm									c0.68			
v/c Ratio	0.66	0.69						0.55	0.68		0.58	
Uniform Delay, d1	33.2	33.4						5.3	0.0		5.6	
Progression Factor	1.00	1.00						1.00	1.00		0.64	
Incremental Delay, d2	4.9	6.4						0.8	2.4		0.6	
Delay (s)	38.1	39.8						6.2	2.4		4.2	
Level of Service	D	D						A	A		A	
Approach Delay (s)		39.0			0.0			4.5			4.2	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					3.0			3.0			3.0	
Lane Util. Factor					1.00			1.00			1.00	
Frt					0.99			1.00			0.97	
Flt Protected					0.95			0.97			1.00	
Satd. Flow (prot)					1767			1812			1811	
Flt Permitted					0.95			0.80			1.00	
Satd. Flow (perm)					1767			1496			1811	
Volume (vph)	0	0	0	619	1	32	83	64	0	0	96	25
Peak-hour factor, PHF	0.93	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.93	0.93
Adj. Flow (vph)	0	0	0	666	1	34	89	69	0	0	103	27
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	0	0	11	0
Lane Group Flow (vph)	0	0	0	0	697	0	0	158	0	0	119	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)					28.9			28.1			28.1	
Effective Green, g (s)					29.9			29.1			29.1	
Actuated g/C Ratio					0.46			0.45			0.45	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					813			670			811	
v/s Ratio Prot											0.07	
v/s Ratio Perm					0.39			c0.11				
v/c Ratio					0.86			0.24			0.15	
Uniform Delay, d1					15.6			11.1			10.6	
Progression Factor					1.00			0.88			1.00	
Incremental Delay, d2					8.9			0.8			0.4	
Delay (s)					24.5			10.5			11.0	
Level of Service					C			B			B	
Approach Delay (s)		0.0			24.5			10.5			11.0	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	20.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	60.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0						3.0	3.0		3.0	
Lane Util. Factor		1.00						1.00	1.00		1.00	
Frt		0.88						1.00	0.85		1.00	
Flt Protected		1.00						1.00	1.00		1.00	
Satd. Flow (prot)		1624						1863	1583		1856	
Flt Permitted		1.00						1.00	1.00		0.98	
Satd. Flow (perm)		1624						1863	1583		1816	
Volume (vph)	24	1	314	0	0	0	0	120	245	48	663	0
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.95	0.95	0.95	0.87	0.87	0.87	0.87	0.95
Adj. Flow (vph)	28	1	361	0	0	0	0	138	282	55	762	0
RTOR Reduction (vph)	0	189	0	0	0	0	0	0	81	0	0	0
Lane Group Flow (vph)	0	201	0	0	0	0	0	138	201	0	817	0
Turn Type	Perm								Perm	Perm		
Protected Phases		4						2			6	
Permitted Phases	4								2	6		
Actuated Green, G (s)		11.6						45.4	45.4		45.4	
Effective Green, g (s)		12.6						46.4	46.4		46.4	
Actuated g/C Ratio		0.19						0.71	0.71		0.71	
Clearance Time (s)		4.0						4.0	4.0		4.0	
Vehicle Extension (s)		3.0						3.0	3.0		3.0	
Lane Grp Cap (vph)		315						1330	1130		1296	
v/s Ratio Prot								0.07				
v/s Ratio Perm		0.12							0.13		c0.45	
v/c Ratio		0.64						0.10	0.18		0.63	
Uniform Delay, d1		24.1						2.9	3.0		4.8	
Progression Factor		1.00						1.00	1.00		2.10	
Incremental Delay, d2		4.2						0.2	0.3		1.6	
Delay (s)		28.3						3.0	3.4		11.7	
Level of Service		C						A	A		B	
Approach Delay (s)		28.3			0.0			3.3			11.7	
Approach LOS		C			A			A			B	

Intersection Summary

HCM Average Control Delay	13.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	83.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	806	0	155	0	1240	462	0	1364	314
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	937	0	180	0	1442	537	0	1586	365
RTOR Reduction (vph)	0	0	0	0	0	22	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	937	0	158	0	1442	537	0	1586	365
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				29.4		29.4		52.6	90.0		52.6	90.0
Effective Green, g (s)				30.4		30.4		53.6	90.0		53.6	90.0
Actuated g/C Ratio				0.34		0.34		0.60	1.00		0.60	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1160		535		3028	1583		2108	1583
v/s Ratio Prot				c0.27		0.10		0.28			c0.45	
v/s Ratio Perm									0.34			0.23
v/c Ratio				0.81		0.30		0.48	0.34		0.75	0.23
Uniform Delay, d1				27.1		21.9		10.3	0.0		13.3	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				4.2		0.3		0.5	0.6		2.5	0.3
Delay (s)				31.4		22.2		10.8	0.6		15.9	0.3
Level of Service				C		C		B	A		B	A
Approach Delay (s)		0.0			29.9			8.0			13.0	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	14.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.89						1.00	0.85		0.97	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1559						3539	1583		4952	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1559						3539	1583		4952	
Volume (vph)	248	0	130	0	0	0	0	1542	859	0	1825	385
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	264	0	138	0	0	0	0	1640	914	0	1941	410
RTOR Reduction (vph)	0	19	0	0	0	0	0	0	0	0	38	0
Lane Group Flow (vph)	207	176	0	0	0	0	0	1640	914	0	2313	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	13.3	13.3						53.7	75.0		53.7	
Effective Green, g (s)	14.3	14.3						54.7	75.0		54.7	
Actuated g/C Ratio	0.19	0.19						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	321	297						2581	1583		3612	
v/s Ratio Prot	0.12	0.11						0.46			c0.47	
v/s Ratio Perm									c0.58			
v/c Ratio	0.64	0.59						0.64	0.58		0.64	
Uniform Delay, d1	28.0	27.7						5.1	0.0		5.2	
Progression Factor	1.00	1.00						1.00	1.00		1.00	
Incremental Delay, d2	4.4	3.1						1.2	1.5		0.9	
Delay (s)	32.4	30.8						6.3	1.5		6.0	
Level of Service	C	C						A	A		A	
Approach Delay (s)		31.6			0.0			4.6			6.0	
Approach LOS		C			A			A			A	

Intersection Summary

HCM Average Control Delay	7.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					3.0			3.0			3.0	
Lane Util. Factor					1.00			1.00			1.00	
Frt					0.97			1.00			0.97	
Flt Protected					0.96			0.97			1.00	
Satd. Flow (prot)					1742			1809			1815	
Flt Permitted					0.96			0.70			1.00	
Satd. Flow (perm)					1742			1306			1815	
Volume (vph)	0	0	0	294	4	80	351	235	0	0	159	37
Peak-hour factor, PHF	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Adj. Flow (vph)	0	0	0	306	4	83	366	245	0	0	166	39
RTOR Reduction (vph)	0	0	0	0	15	0	0	0	0	0	13	0
Lane Group Flow (vph)	0	0	0	0	378	0	0	611	0	0	192	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)					16.9			40.1			40.1	
Effective Green, g (s)					17.9			41.1			41.1	
Actuated g/C Ratio					0.28			0.63			0.63	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					480			826			1148	
v/s Ratio Prot											0.11	
v/s Ratio Perm					0.22			c0.47				
v/c Ratio					0.79			0.74			0.17	
Uniform Delay, d1					21.8			8.3			4.9	
Progression Factor					1.00			0.74			1.00	
Incremental Delay, d2					8.3			5.4			0.3	
Delay (s)					30.1			11.5			5.2	
Level of Service					C			B			A	
Approach Delay (s)		0.0			30.1			11.5			5.2	
Approach LOS		A			C			B			A	

Intersection Summary

HCM Average Control Delay	16.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0						3.0	3.0		3.0	
Lane Util. Factor		1.00						1.00	1.00		1.00	
Frt		0.90						1.00	0.85		1.00	
Flt Protected		0.99						1.00	1.00		0.99	
Satd. Flow (prot)		1654						1863	1583		1851	
Flt Permitted		0.99						1.00	1.00		0.89	
Satd. Flow (perm)		1654						1863	1583		1649	
Volume (vph)	33	0	98	0	0	0	0	602	711	52	367	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Adj. Flow (vph)	37	0	109	0	0	0	0	669	790	58	408	0
RTOR Reduction (vph)	0	97	0	0	0	0	0	0	163	0	0	0
Lane Group Flow (vph)	0	49	0	0	0	0	0	669	627	0	466	0
Turn Type	Perm								Perm	Perm		
Protected Phases		4						2			6	
Permitted Phases	4								2	6		
Actuated Green, G (s)		6.4						50.6	50.6		50.6	
Effective Green, g (s)		7.4						51.6	51.6		51.6	
Actuated g/C Ratio		0.11						0.79	0.79		0.79	
Clearance Time (s)		4.0						4.0	4.0		4.0	
Vehicle Extension (s)		3.0						3.0	3.0		3.0	
Lane Grp Cap (vph)		188						1479	1257		1309	
v/s Ratio Prot								0.36				
v/s Ratio Perm		0.03							c0.40		0.28	
v/c Ratio		0.26						0.45	0.50		0.36	
Uniform Delay, d1		26.3						2.2	2.3		1.9	
Progression Factor		1.00						1.00	1.00		0.67	
Incremental Delay, d2		0.7						1.0	1.4		0.6	
Delay (s)		27.1						3.2	3.7		1.9	
Level of Service		C						A	A		A	
Approach Delay (s)		27.1			0.0			3.5			1.9	
Approach LOS		C			A			A			A	

Intersection Summary

HCM Average Control Delay	4.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	84.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	567	0	227	0	1163	319	0	1307	300
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	630	0	252	0	1292	354	0	1452	333
RTOR Reduction (vph)	0	0	0	0	0	41	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	630	0	211	0	1292	354	0	1452	333
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				22.2		22.2		59.8	90.0		59.8	90.0
Effective Green, g (s)				23.2		23.2		60.8	90.0		60.8	90.0
Actuated g/C Ratio				0.26		0.26		0.68	1.00		0.68	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				885		408		3435	1583		2391	1583
v/s Ratio Prot				c0.18		0.13		0.25			c0.41	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.71		0.52		0.38	0.22		0.61	0.21
Uniform Delay, d1				30.4		28.6		6.4	0.0		8.0	0.0
Progression Factor				1.00		1.00		0.64	1.00		1.00	1.00
Incremental Delay, d2				2.7		1.1		0.3	0.3		1.2	0.3
Delay (s)				33.1		29.7		4.3	0.3		9.2	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			32.1			3.4			7.5	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	11.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.86						1.00	0.85		0.96	
Flt Protected	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1516						3539	1583		4905	
Flt Permitted	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1516						3539	1583		4905	
Volume (vph)	211	0	174	0	0	0	0	1245	1014	0	1546	479
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	243	0	200	0	0	0	0	1431	1166	0	1777	551
RTOR Reduction (vph)	0	19	0	0	0	0	0	0	0	0	45	0
Lane Group Flow (vph)	230	194	0	0	0	0	0	1431	1166	0	2283	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.0	17.0						65.0	90.0		65.0	
Effective Green, g (s)	18.0	18.0						66.0	90.0		66.0	
Actuated g/C Ratio	0.20	0.20						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	336	303						2595	1583		3597	
v/s Ratio Prot	0.14	0.13						0.40			0.47	
v/s Ratio Perm									c0.74			
v/c Ratio	0.68	0.64						0.55	0.74		0.63	
Uniform Delay, d1	33.4	33.0						5.4	0.0		6.0	
Progression Factor	1.00	1.00						1.00	1.00		0.73	
Incremental Delay, d2	5.7	4.4						0.8	3.1		0.7	
Delay (s)	39.0	37.4						6.2	3.1		5.1	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.3			0.0			4.8			5.1	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					3.0			3.0			3.0	
Lane Util. Factor					1.00			1.00			1.00	
Frt					1.00			1.00			0.98	
Flt Protected					0.95			0.97			1.00	
Satd. Flow (prot)					1772			1813			1821	
Flt Permitted					0.95			0.70			1.00	
Satd. Flow (perm)					1772			1313			1821	
Volume (vph)	0	0	0	860	1	10	100	81	0	0	180	36
Peak-hour factor, PHF	0.93	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.93	0.93
Adj. Flow (vph)	0	0	0	925	1	11	108	87	0	0	194	39
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	12	0
Lane Group Flow (vph)	0	0	0	0	936	0	0	195	0	0	221	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)					34.0			18.0			18.0	
Effective Green, g (s)					35.0			19.0			19.0	
Actuated g/C Ratio					0.58			0.32			0.32	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					1034			416			577	
v/s Ratio Prot											0.12	
v/s Ratio Perm					0.53			c0.15				
v/c Ratio					0.91			0.47			0.38	
Uniform Delay, d1					11.0			16.5			15.9	
Progression Factor					1.00			1.00			1.00	
Incremental Delay, d2					11.1			3.8			1.9	
Delay (s)					22.1			20.2			17.9	
Level of Service					C			C			B	
Approach Delay (s)		0.0			22.1			20.2			17.9	
Approach LOS		A			C			C			B	

Intersection Summary

HCM Average Control Delay	21.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	79.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0						3.0	3.0		3.0	
Lane Util. Factor		1.00						1.00	1.00		1.00	
Frt		0.87						1.00	0.85		1.00	
Flt Protected		1.00						1.00	1.00		1.00	
Satd. Flow (prot)		1622						1863	1583		1859	
Flt Permitted		1.00						1.00	1.00		0.98	
Satd. Flow (perm)		1622						1863	1583		1828	
Volume (vph)	24	1	380	0	0	0	0	154	269	48	1208	0
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.95	0.95	0.95	0.87	0.87	0.87	0.87	0.95
Adj. Flow (vph)	28	1	437	0	0	0	0	177	309	55	1389	0
RTOR Reduction (vph)	0	71	0	0	0	0	0	0	81	0	0	0
Lane Group Flow (vph)	0	395	0	0	0	0	0	177	228	0	1444	0
Turn Type	Perm								Perm	Perm		
Protected Phases		4						2			6	
Permitted Phases	4								2	6		
Actuated Green, G (s)		27.0						95.0	95.0		95.0	
Effective Green, g (s)		28.0						96.0	96.0		96.0	
Actuated g/C Ratio		0.22						0.74	0.74		0.74	
Clearance Time (s)		4.0						4.0	4.0		4.0	
Vehicle Extension (s)		3.0						3.0	3.0		3.0	
Lane Grp Cap (vph)		349						1376	1169		1350	
v/s Ratio Prot								0.10				
v/s Ratio Perm		0.24							0.14		c0.79	
v/c Ratio		1.13						0.13	0.20		1.07	
Uniform Delay, d1		51.0						4.9	5.2		17.0	
Progression Factor		1.00						1.00	1.00		1.00	
Incremental Delay, d2		89.3						0.2	0.4		45.5	
Delay (s)		140.3						5.1	5.6		62.5	
Level of Service		F						A	A		E	
Approach Delay (s)		140.3			0.0			5.4			62.5	
Approach LOS		F			A			A			E	

Intersection Summary

HCM Average Control Delay	66.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	117.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	789	0	172	0	1234	512	0	1364	314
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	917	0	200	0	1435	595	0	1586	365
RTOR Reduction (vph)	0	0	0	0	0	22	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	917	0	178	0	1435	595	0	1586	365
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				29.1		29.1		52.9	90.0		52.9	90.0
Effective Green, g (s)				30.1		30.1		53.9	90.0		53.9	90.0
Actuated g/C Ratio				0.33		0.33		0.60	1.00		0.60	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1148		529		3045	1583		2119	1583
v/s Ratio Prot				c0.27		0.11		0.28			c0.45	
v/s Ratio Perm									0.38			0.23
v/c Ratio				0.80		0.34		0.47	0.38		0.75	0.23
Uniform Delay, d1				27.2		22.5		10.1	0.0		13.1	0.0
Progression Factor				1.00		1.00		0.58	1.00		1.00	1.00
Incremental Delay, d2				4.0		0.4		0.4	0.5		2.5	0.3
Delay (s)				31.2		22.8		6.3	0.5		15.6	0.3
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			29.7			4.6			12.7	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	13.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.89						1.00	0.85		0.97	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1556						3539	1583		4944	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1556						3539	1583		4944	
Volume (vph)	242	0	130	0	0	0	0	1587	865	0	1786	407
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	257	0	138	0	0	0	0	1688	920	0	1900	433
RTOR Reduction (vph)	0	19	0	0	0	0	0	0	0	0	31	0
Lane Group Flow (vph)	204	172	0	0	0	0	0	1688	920	0	2302	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	15.9	15.9						66.1	90.0		66.1	
Effective Green, g (s)	16.9	16.9						67.1	90.0		67.1	
Actuated g/C Ratio	0.19	0.19						0.75	1.00		0.75	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	316	292						2639	1583		3686	
v/s Ratio Prot	0.12	0.11						c0.48			0.47	
v/s Ratio Perm									c0.58			
v/c Ratio	0.65	0.59						0.64	0.58		0.62	
Uniform Delay, d1	33.8	33.4						5.6	0.0		5.5	
Progression Factor	1.00	1.00						1.14	1.00		0.77	
Incremental Delay, d2	4.5	3.2						1.1	1.4		0.5	
Delay (s)	38.3	36.6						7.5	1.4		4.7	
Level of Service	D	D						A	A		A	
Approach Delay (s)		37.4			0.0			5.4			4.7	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					3.0			3.0			3.0	
Lane Util. Factor					1.00			1.00			1.00	
Frt					0.98			1.00			0.97	
Flt Protected					0.96			0.98			1.00	
Satd. Flow (prot)					1748			1833			1802	
Flt Permitted					0.96			0.79			1.00	
Satd. Flow (perm)					1748			1466			1802	
Volume (vph)	0	0	0	333	4	69	362	745	0	0	170	54
Peak-hour factor, PHF	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Adj. Flow (vph)	0	0	0	347	4	72	377	776	0	0	177	56
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	0	0	10	0
Lane Group Flow (vph)	0	0	0	0	416	0	0	1153	0	0	223	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)					23.0			79.0			79.0	
Effective Green, g (s)					24.0			80.0			80.0	
Actuated g/C Ratio					0.22			0.73			0.73	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					381			1066			1311	
v/s Ratio Prot											0.12	
v/s Ratio Perm					0.24			c0.79				
v/c Ratio					1.09			1.08			0.17	
Uniform Delay, d1					43.0			15.0			4.7	
Progression Factor					1.00			1.00			1.00	
Incremental Delay, d2					73.1			52.4			0.3	
Delay (s)					116.1			67.4			4.9	
Level of Service					F			E			A	
Approach Delay (s)		0.0			116.1			67.4			4.9	
Approach LOS		A			F			E			A	

Intersection Summary

HCM Average Control Delay	70.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	104.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0						3.0	3.0		3.0	
Lane Util. Factor		1.00						1.00	1.00		1.00	
Frt		0.89						1.00	0.85		1.00	
Flt Protected		0.99						1.00	1.00		0.99	
Satd. Flow (prot)		1645						1863	1583		1852	
Flt Permitted		0.99						1.00	1.00		0.71	
Satd. Flow (perm)		1645						1863	1583		1314	
Volume (vph)	33	0	132	0	0	0	0	1100	756	52	417	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Adj. Flow (vph)	37	0	147	0	0	0	0	1222	840	58	463	0
RTOR Reduction (vph)	0	130	0	0	0	0	0	0	160	0	0	0
Lane Group Flow (vph)	0	54	0	0	0	0	0	1222	680	0	521	0
Turn Type	Perm								Perm	Perm		
Protected Phases		4						2			6	
Permitted Phases	4								2	6		
Actuated Green, G (s)		8.2						63.8	63.8		63.8	
Effective Green, g (s)		9.2						64.8	64.8		64.8	
Actuated g/C Ratio		0.12						0.81	0.81		0.81	
Clearance Time (s)		4.0						4.0	4.0		4.0	
Vehicle Extension (s)		3.0						3.0	3.0		3.0	
Lane Grp Cap (vph)		189						1509	1282		1064	
v/s Ratio Prot								c0.66				
v/s Ratio Perm		0.03							0.43		0.40	
v/c Ratio		0.29						0.81	0.53		0.49	
Uniform Delay, d1		32.4						4.2	2.5		2.4	
Progression Factor		1.00						1.00	1.00		1.00	
Incremental Delay, d2		0.8						4.8	1.6		1.6	
Delay (s)		33.2						9.0	4.1		4.0	
Level of Service		C						A	A		A	
Approach Delay (s)		33.2			0.0			7.0			4.0	
Approach LOS		C			A			A			A	

Intersection Summary

HCM Average Control Delay	8.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	91.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

24. Ventura & Wooley

Year 2015 W/Project Phase 2 (Mitigation)

			AM PK HOUR		PM PK HOUR	
	LANES	CAPACITY	VOL	V/C	VOL	V/C
NBL	1	1600	122	.08	130	.08
NBT	3	4800	985	.22*	1117	.25*
NBR	0	0	71		75	
SBL	1	1600	216	.14*	269	.17*
SBT	3	4800	809	.18	1108	.26
SBR	0	0	65		143	
EBL	1	1600	196	.12	175	.11*
EBT	2	3200	662	.21*	565	.18
EBR	1	1600	90	.06	77	.05
WBL	1	1600	113	.07*	273	.17
WBT	2	3200	388	.12	837	.26*
WBR	1	1600	150	.09	206	.13

TOTAL CAPACITY UTILIZATION .64 .79

45. Oxnard & Vineyard

Year 2015 W/Project Phase 2 (Mitigation)

			AM PK HOUR		PM PK HOUR	
	LANES	CAPACITY	VOL	V/C	VOL	V/C
NBL	2	3200	88	.03*	298	.09*
NBT	3	4800	808	.17	1088	.23
NBR	2	3200	766	.24	832	.26
SBL	2	3200	99	.03	181	.06
SBT	3	4800	864	.20*	1042	.26*
SBR	0	0	86		198	
EBL	1.5		270	.17	263	
EBT	2.5	6400	1199	.25*	631	.14*
EBR	1	1600	170	.11	128	.08
WBL	3	4800	610	.13	860	.18
WBT	2	3200	413	.13*	964	.31*
WBR	0	0	15		23	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .61 .80

46. Oxnard & Gonzales

Year 2015 W/Project Phase 2 (Mitigation)

			AM PK HOUR		PM PK HOUR	
	LANES	CAPACITY	VOL	V/C	VOL	V/C
NBL	2	3200	101	.03	174	.05
NBT	3	4800	897	.19*	1167	.24*
NBR	1	1600	334	.21	307	.19
SBL	2	3200	430	.13*	407	.13*
SBT	3	4800	1194	.25	1418	.30
SBR	1	1600	61	.04	114	.07
EBL	2	3200	250	.08	245	.08*
EBT	3	4800	925	.19*	1008	.21
EBR	1	1600	70	.04	136	.09
WBL	2	3200	255	.08*	381	.12
WBT	3	4800	737	.15	1296	.27*
WBR	1	1600	364	.23	425	.27

TOTAL CAPACITY UTILIZATION .59 .72

65. Rose & Gonzales

Year 2015 W/Project Phase 2 (Mitigation)

			AM PK HOUR		PM PK HOUR	
	LANES	CAPACITY	VOL	V/C	VOL	V/C
NBL	2	3200	287	.09	391	.12
NBT	3	4800	1201	.25*	1336	.28*
NBR	1	1600	240	.15	191	.12
SBL	2	3200	460	.14*	291	.09*
SBT	4	6400	1103	.17	1546	.24
SBR	1	1600	261	.16	596	.37
EBL	2	3200	748	.23*	553	.17*
EBT	3	4800	1082	.23	648	.14
EBR	1	1600	330	.21	232	.15
WBL	1	1600	107	.07	135	.08
WBT	4	6400	419	.07*	1347	.21*
WBR	1	1600	185	.12	345	.22

TOTAL CAPACITY UTILIZATION .69 .75

68. Rose & 5th

Year 2015 W/Project Phase 2 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	15	.01	39	.02*
NBT	3	4800	1256	.31*	1344	.29
NBR	0	0	221		70	
SBL	1	1600	34	.02*	30	.02
SBT	3	4800	1331	.31	1414	.34*
SBR	0	0	147		215	
EBL	2	3200	235	.07	352	.11*
EBT	2	3200	561	.18*	378	.12
EBR	1	1600	40	.03	56	.04
WBL	1	1600	154	.10*	357	.22
WBT	2	3200	256	.09	670	.24*
WBR	0	0	21		100	
TOTAL CAPACITY UTILIZATION				**.61**		**.71**

84. Rice & Fifth

Year 2015 W/Project Phase 2 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	53	.03	77	.05*
NBT	2	3200	1557	.49*	1180	.37
NBR	1	1600	515	.32	247	.15
SBL	1	1600	18	.01*	23	.01
SBT	3	4800	1006	.22	1789	.41*
SBR	0	0	69		158	
EBL	1	1600	108	.07	85	.05
EBT	2	3200	543	.18*	416	.13*
EBR	0	0	22		8	
WBL	2	3200	242	.08*	437	.14*
WBT	2	3200	334	.11	538	.18
WBR	0	0	13		30	
TOTAL CAPACITY UTILIZATION				**.76**		**.73**

86. Rice & Channel Islands

Year 2015 W/Project Phase 2 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	72	.05*	240	.15*
NBT	2	3200	694	.22	1020	.32
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	669	.21*	904	.28*
SBR	f		249		899	
EBL	2	3200	616	.19*	241	.08*
EBT	0	0	0		0	
EBR	1	1600	97	.06	48	.03
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				**.45**		**.51**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.95		1.00	0.95			0.95	1.00
Frt				1.00	1.00		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.95		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1682		1770	3539			3539	1583
Flt Permitted				0.95	0.95		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1682		1770	3539			3539	1583
Volume (vph)	0	0	0	860	1	10	100	81	0	0	180	36
Peak-hour factor, PHF	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Adj. Flow (vph)	0	0	0	896	1	10	104	84	0	0	188	38
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	31
Lane Group Flow (vph)	0	0	0	475	431	0	104	84	0	0	188	7
Turn Type				Prot			Prot					Perm
Protected Phases				3	8		5	2			6	
Permitted Phases												6
Actuated Green, G (s)				32.7	32.7		5.6	19.3			9.7	9.7
Effective Green, g (s)				33.7	33.7		6.6	20.3			10.7	10.7
Actuated g/C Ratio				0.56	0.56		0.11	0.34			0.18	0.18
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				944	945		195	1197			631	282
v/s Ratio Prot				c0.28	0.26		c0.06	0.02			c0.05	
v/s Ratio Perm												0.00
v/c Ratio				0.50	0.46		0.53	0.07			0.30	0.02
Uniform Delay, d1				8.0	7.7		25.2	13.5			21.4	20.3
Progression Factor				1.00	1.00		0.94	0.93			1.00	1.00
Incremental Delay, d2				0.4	0.4		2.8	0.1			1.2	0.2
Delay (s)				8.5	8.1		26.6	12.6			22.6	20.5
Level of Service				A	A		C	B			C	C
Approach Delay (s)		0.0			8.3			20.4			22.2	
Approach LOS		A			A			C			C	

Intersection Summary

HCM Average Control Delay	12.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		1.00					0.95	1.00	1.00	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		1583					3539	1583	1770	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		1583					3539	1583	1770	3539	
Volume (vph)	24	0	380	0	0	0	0	154	269	48	1208	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Adj. Flow (vph)	27	0	422	0	0	0	0	171	299	53	1342	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	27	0	422	0	0	0	0	171	299	53	1342	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	1.6		60.0					41.4	60.0	5.0	50.4	
Effective Green, g (s)	2.6		60.0					42.4	60.0	6.0	51.4	
Actuated g/C Ratio	0.04		1.00					0.71	1.00	0.10	0.86	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	77		1583					2501	1583	177	3032	
v/s Ratio Prot								0.05		0.03	c0.38	
v/s Ratio Perm	0.02		c0.27						0.19			
v/c Ratio	0.35		0.27					0.07	0.19	0.30	0.44	
Uniform Delay, d1	27.9		0.0					2.7	0.0	25.1	1.0	
Progression Factor	1.00		1.00					1.00	1.00	1.17	0.29	
Incremental Delay, d2	2.8		0.4					0.1	0.3	0.9	0.4	
Delay (s)	30.6		0.4					2.8	0.3	30.2	0.7	
Level of Service	C		A					A	A	C	A	
Approach Delay (s)		2.2			0.0			1.2			1.9	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	1.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.95		1.00	0.95			0.95	1.00
Frt				1.00	0.95		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.97		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1626		1770	3539			3539	1583
Flt Permitted				0.95	0.97		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1626		1770	3539			3539	1583
Volume (vph)	0	0	0	333	4	69	362	745	0	0	170	54
Peak-hour factor, PHF	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Adj. Flow (vph)	0	0	0	347	4	72	377	776	0	0	177	56
RTOR Reduction (vph)	0	0	0	0	34	0	0	0	0	0	0	39
Lane Group Flow (vph)	0	0	0	215	174	0	377	776	0	0	177	17
Turn Type				Perm			Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8								6
Actuated Green, G (s)				12.2	12.2		18.1	39.8			17.7	17.7
Effective Green, g (s)				13.2	13.2		19.1	40.8			18.7	18.7
Actuated g/C Ratio				0.22	0.22		0.32	0.68			0.31	0.31
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				370	358		563	2407			1103	493
v/s Ratio Prot							c0.21	c0.22			0.05	
v/s Ratio Perm				c0.13	0.11							0.01
v/c Ratio				0.58	0.49		0.67	0.32			0.16	0.04
Uniform Delay, d1				20.9	20.4		17.7	3.9			15.0	14.4
Progression Factor				1.00	1.00		0.78	0.34			1.00	1.00
Incremental Delay, d2				2.3	1.0		2.8	0.3			0.3	0.1
Delay (s)				23.2	21.5		16.7	1.7			15.3	14.5
Level of Service				C	C		B	A			B	B
Approach Delay (s)		0.0			22.4			6.6			15.1	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	11.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	47.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		1.00					0.95	1.00	1.00	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		1583					3539	1583	1770	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		1583					3539	1583	1770	3539	
Volume (vph)	33	0	132	0	0	0	0	1100	756	52	417	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Adj. Flow (vph)	37	0	147	0	0	0	0	1222	840	58	463	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	37	0	147	0	0	0	0	1222	840	58	463	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	3.1		60.0					42.4	60.0	2.5	48.9	
Effective Green, g (s)	4.1		60.0					43.4	60.0	3.5	49.9	
Actuated g/C Ratio	0.07		1.00					0.72	1.00	0.06	0.83	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	121		1583					2560	1583	103	2943	
v/s Ratio Prot								0.35		0.03	0.13	
v/s Ratio Perm	0.02		0.09						c0.53			
v/c Ratio	0.31		0.09					0.48	0.53	0.56	0.16	
Uniform Delay, d1	26.6		0.0					3.5	0.0	27.5	1.0	
Progression Factor	1.00		1.00					1.00	1.00	1.01	0.03	
Incremental Delay, d2	1.4		0.1					0.6	1.3	6.3	0.1	
Delay (s)	28.0		0.1					4.1	1.3	34.1	0.1	
Level of Service	C		A					A	A	C	A	
Approach Delay (s)		5.7			0.0			3.0			3.9	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	3.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	47.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

20. Ventura & Gonzales

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	151	.09	238	.15*
NBT	2	3200	826	.26*	944	.29
NBR	1	1600	351	.22	381	.24
SBL	1	1600	123	.08*	203	.13
SBT	3	4800	765	.18	1262	.28*
SBR	0	0	114		87	
EBL	1	1600	208	.13*	199	.12
EBT	2	3200	317	.10	444	.14*
EBR	1	1600	81	.05	129	.08
WBL	2	3200	241	.08	657	.21*
WBT	2	3200	328	.12*	528	.20
WBR	0	0	62		108	

TOTAL CAPACITY UTILIZATION .59 .78

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	135	.08	271	.17*
NBT	2	3200	892	.28*	977	.31
NBR	1	1600	335	.21	373	.23
SBL	1	1600	131	.08*	211	.13
SBT	3	4800	822	.20	1254	.28*
SBR	0	0	114		87	
EBL	1	1600	208	.13*	215	.13*
EBT	2	3200	358	.11	452	.14
EBR	1	1600	73	.05	129	.08
WBL	2	3200	225	.07	554	.17
WBT	2	3200	328	.12*	528	.21*
WBR	0	0	70		133	

TOTAL CAPACITY UTILIZATION .61 .79

24. Ventura & Wooley

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	158	.10	170	.11
NBT	3	4800	936	.21*	1104	.25*
NBR	0	0	67		87	
SBL	1	1600	318	.20*	366	.23*
SBT	3	4800	782	.18	1114	.26
SBR	0	0	64		139	
EBL	1	1600	205	.13	197	.12
EBT	2	3200	645	.20*	656	.21*
EBR	1	1600	106	.07	68	.04
WBL	1	1600	132	.08*	315	.20*
WBT	2	3200	425	.13	912	.29
WBR	1	1600	147	.09	197	.12

TOTAL CAPACITY UTILIZATION .69 .89

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	158	.10	170	.11
NBT	3	4800	944	.21*	1112	.25*
NBR	0	0	75		79	
SBL	1	1600	302	.19*	366	.23*
SBT	3	4800	790	.18	1081	.25
SBR	0	0	56		139	
EBL	1	1600	189	.12	197	.12*
EBT	2	3200	702	.22*	664	.21
EBR	1	1600	122	.08	68	.04
WBL	1	1600	132	.08*	315	.20
WBT	2	3200	425	.13	961	.30*
WBR	1	1600	131	.08	197	.12

TOTAL CAPACITY UTILIZATION .70 .90

45. Oxnard & Vineyard

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	81	.03*	222	.07*
NBT	3	4800	895	.19	1361	.28
NBR	2	3200	785	.25	823	.26
SBL	2	3200	99	.03	180	.06
SBT	3	4800	910	.21*	1198	.30*
SBR	0	0	77		233	
EBL	1.5		260	.16	275	
EBT	2.5	6400	923	.19*	609	.14*
EBR	1	1600	156	.10	118	.07
WBL	3	4800	495	.10	830	.17
WBT	2	3200	392	.13*	913	.29*
WBR	0	0	13		25	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .56 .80

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	89	.03*	288	.09*
NBT	3	4800	977	.20	1377	.29
NBR	2	3200	760	.24	864	.27
SBL	2	3200	99	.03	180	.06
SBT	3	4800	1041	.23*	1206	.30*
SBR	0	0	77		217	
EBL	1.5		276	.17	283	
EBT	2.5	6400	1177	.25*	650	.15*
EBR	1	1600	164	.10	118	.07
WBL	3	4800	602	.13	830	.17
WBT	2	3200	392	.13*	913	.29*
WBR	0	0	13		25	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .64 .83

65. Rose & Gonzales

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	274	.09	398	.12*
NBT	3	4800	1063	.22*	1260	.26
NBR	1	1600	367	.23	268	.17
SBL	2	3200	267	.08*	277	.09
SBT	4	6400	1145	.18	1560	.24*
SBR	1	1600	304	.19	580	.36
EBL	2	3200	518	.16	525	.16*
EBT	3	4800	897	.19*	587	.12
EBR	1	1600	310	.19	258	.16
WBL	1	1600	117	.07*	238	.15
WBT	4	6400	379	.06	1287	.20*
WBR	1	1600	171	.11	393	.25

TOTAL CAPACITY UTILIZATION .56 .72

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	299	.09	390	.12
NBT	3	4800	1227	.26*	1416	.29*
NBR	1	1600	285	.18	260	.16
SBL	2	3200	521	.16*	277	.09*
SBT	4	6400	1161	.18	1593	.25
SBR	1	1600	247	.15	580	.36
EBL	2	3200	739	.23	525	.16*
EBT	3	4800	1192	.25*	677	.14
EBR	1	1600	384	.24	258	.16
WBL	1	1600	125	.08*	140	.09
WBT	4	6400	461	.07	1500	.23*
WBR	1	1600	212	.13	401	.25

TOTAL CAPACITY UTILIZATION .75 .77

66. Rose & Camino del Sol

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	150	.09*	163	.10*
NBT	3	4800	1269	.29	1458	.32
NBR	0	0	137		100	
SBL	1	1600	207	.13	118	.07
SBT	2	3200	1517	.47*	1481	.46*
SBR	f		106		207	
EBL	1	1600	194	.12	163	.10
EBT	2	3200	330	.16*	200	.09*
EBR	0	0	175		92	
WBL	1	1600	161	.10*	305	.19*
WBT	2	3200	133	.04	474	.15
WBR	1	1600	112	.07	288	.18

TOTAL CAPACITY UTILIZATION .82 .84

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	150	.09*	114	.07*
NBT	3	4800	1367	.32	1507	.33
NBR	0	0	186		100	
SBL	1	1600	330	.21	134	.08
SBT	2	3200	1419	.44*	1473	.46*
SBR	f		114		182	
EBL	1	1600	210	.13	179	.11*
EBT	2	3200	428	.18*	192	.09
EBR	0	0	159		84	
WBL	1	1600	161	.10*	354	.22
WBT	2	3200	141	.04	671	.21*
WBR	1	1600	128	.08	378	.24

TOTAL CAPACITY UTILIZATION .81 .85

68. Rose & 5th

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	13	.01*	52	.03*
NBT	3	4800	1248	.30	1474	.33
NBR	0	0	196		94	
SBL	1	1600	30	.02	20	.01
SBT	3	4800	1524	.35*	1544	.37*
SBR	0	0	165		209	
EBL	2	3200	209	.07	288	.09
EBT	2	3200	564	.18*	481	.15*
EBR	1	1600	47	.03	78	.05
WBL	1	1600	158	.10*	315	.20*
WBT	2	3200	243	.08	650	.24
WBR	0	0	17		113	

TOTAL CAPACITY UTILIZATION .64 .75

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	13	.01	52	.03*
NBT	3	4800	1305	.33*	1441	.32
NBR	0	0	294		86	
SBL	1	1600	30	.02*	28	.02
SBT	3	4800	1467	.34	1528	.36*
SBR	0	0	149		217	
EBL	2	3200	234	.07	354	.11
EBT	2	3200	638	.20*	432	.14*
EBR	1	1600	47	.03	70	.04
WBL	1	1600	166	.10*	438	.27*
WBT	2	3200	251	.08	732	.27
WBR	0	0	17		121	

TOTAL CAPACITY UTILIZATION .65 .80

69. Rose & Wooley

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	47	.03*	64	.04*
NBT	2	3200	1152	.36	1093	.34
NBR	1	1600	101	.06	68	.04
SBL	1	1600	26	.02	20	.01
SBT	2	3200	1335	.42*	1496	.47*
SBR	f		390		428	
EBL	2	3200	309	.10	411	.13*
EBT	2	3200	423	.15*	280	.11
EBR	0	0	48		65	
WBL	1	1600	72	.05*	138	.09
WBT	2	3200	140	.05	476	.16*
WBR	0	0	14		29	
TOTAL CAPACITY UTILIZATION				**.65**		**.80**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	39	.02*	64	.04*
NBT	2	3200	1226	.38	1093	.34
NBR	1	1600	101	.06	68	.04
SBL	1	1600	34	.02	28	.02
SBT	2	3200	1302	.41*	1529	.48*
SBR	f		365		469	
EBL	2	3200	383	.12	395	.12*
EBT	2	3200	382	.13*	264	.10
EBR	0	0	40		65	
WBL	1	1600	121	.08*	171	.11
WBT	2	3200	124	.04	484	.16*
WBR	0	0	14		29	
TOTAL CAPACITY UTILIZATION				**.64**		**.80**

71. Rose & Oxnard

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	177	.11*	279	.17*
NBT	2	3200	1019	.32	1026	.32
NBR	1	1600	21	.01	11	.01
SBL	2	3200	54	.02	64	.02
SBT	2	3200	972	.30*	1201	.38*
SBR	f		34		54	
EBL	0	0	0		0	
EBT	2	3200	265	.08*	168	.05
EBR	f		196		181	
WBL	0	0	0		0	
WBT	2	3200	164	.05	568	.18*
WBR	f		61		87	
TOTAL CAPACITY UTILIZATION				**.49**		**.73**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	169	.11*	279	.17*
NBT	2	3200	1060	.33	1018	.32
NBR	1	1600	21	.01	11	.01
SBL	2	3200	79	.02	89	.03
SBT	2	3200	931	.29*	1226	.38*
SBR	f		34		54	
EBL	0	0	0		0	
EBT	2	3200	273	.09*	176	.06
EBR	f		196		181	
WBL	0	0	0		0	
WBT	2	3200	189	.06	584	.18*
WBR	f		77		95	
TOTAL CAPACITY UTILIZATION				**.49**		**.73**

72. Rose & Channel Islands

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	225	.07*	358	.11
NBT	2	3200	875	.27	786	.25*
NBR	1	1600	191	.12	107	.07
SBL	1	1600	87	.05	165	.10*
SBT	3	4800	1101	.26*	768	.22
SBR	0	0	166		311	
EBL	2	3200	410	.13	347	.11*
EBT	2	3200	573	.18*	422	.13
EBR	1	1600	222	.14	204	.13
WBL	2	3200	249	.08*	338	.11
WBT	2	3200	366	.11	772	.24*
WBR	1	1600	7	.00	9	.01
TOTAL CAPACITY UTILIZATION				**.59**		**.70**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	217	.07	350	.11
NBT	2	3200	916	.29*	786	.25*
NBR	1	1600	224	.14	115	.07
SBL	1	1600	87	.05*	165	.10*
SBT	3	4800	1068	.25	809	.23
SBR	0	0	150		295	
EBL	2	3200	410	.13	339	.11*
EBT	2	3200	589	.18*	455	.14
EBR	1	1600	222	.14	196	.12
WBL	2	3200	265	.08*	354	.11
WBT	2	3200	399	.12	854	.27*
WBR	1	1600	7	.00	9	.01
TOTAL CAPACITY UTILIZATION				**.60**		**.73**

73. Rose & Bard

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	46	.03	76	.05
NBT	2	3200	1023	.32*	1010	.32*
NBR	1	1600	15	.01	24	.02
SBL	1	1600	161	.10*	108	.07*
SBT	2	3200	1150	.36	823	.26
SBR	1	1600	157	.10	381	.24
EBL	1	1600	244	.15*	170	.11*
EBT	2	3200	193	.07	196	.08
EBR	0	0	46		73	
WBL	1	1600	19	.01	17	.01
WBT	2	3200	130	.08*	376	.17*
WBR	0	0	171	.11	163	
TOTAL CAPACITY UTILIZATION				**.65**		**.67**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	54	.03	92	.06
NBT	2	3200	1064	.33*	977	.31*
NBR	1	1600	15	.01	24	.02
SBL	1	1600	169	.11*	116	.07*
SBT	2	3200	1150	.36	848	.26
SBR	1	1600	141	.09	397	.25
EBL	1	1600	252	.16*	195	.12*
EBT	2	3200	193	.08	204	.09
EBR	0	0	54		73	
WBL	1	1600	27	.02	17	.01
WBT	2	3200	155	.10*	384	.17*
WBR	0	0	179	.11	171	
TOTAL CAPACITY UTILIZATION				**.70**		**.67**

74. Rose & Pleasant Valley

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	72	.05	127	.08
NBT	2	3200	575	.18*	774	.24*
NBR	1	1600	107	.07	215	.13
SBL	1	1600	196	.12*	131	.08*
SBT	2	3200	794	.25	533	.17
SBR	1	1600	280	.18	303	.19
EBL	1	1600	289	.18*	242	.15*
EBT	2	3200	704	.22	549	.17
EBR	1	1600	87	.05	80	.05
WBL	1	1600	225	.14	173	.11
WBT	2	3200	608	.19*	803	.25*
WBR	1	1600	126	.08	91	.06
TOTAL CAPACITY UTILIZATION				**.67**		**.72**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	72	.05*	152	.10
NBT	2	3200	496	.16	799	.25*
NBR	1	1600	107	.07	199	.12
SBL	1	1600	196	.12	139	.09*
SBT	2	3200	794	.25*	623	.19
SBR	1	1600	165	.10	303	.19
EBL	1	1600	346	.22*	242	.15*
EBT	2	3200	688	.22	401	.13
EBR	1	1600	103	.06	47	.03
WBL	1	1600	209	.13	140	.09
WBT	2	3200	444	.14*	770	.24*
WBR	1	1600	179	.11	157	.10
TOTAL CAPACITY UTILIZATION				**.66**		**.73**

78. Bard & Pleasant Valley

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	5		5	
NBT	1	1600	5	.02*	5	.01*
NBR	0	0	17		13	
SBL	1.5		237		245	
SBT	0.5	3200	6	.08*	10	.08*
SBR	1	1600	27	.02	26	.02
EBL	1	1600	28	.02*	46	.03*
EBT	2	3200	905	.29	916	.29
EBR	0	0	8		5	
WBL	1	1600	23	.01	23	.01
WBT	2	3200	852	.38*	962	.44*
WBR	0	0	360		448	
TOTAL CAPACITY UTILIZATION				**.50**		**.56**

Note: Assumes N/S Split Phasing

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	5		5	
NBT	1	1600	5	.02*	5	.01*
NBR	0	0	17		13	
SBL	1.5		237		261	
SBT	0.5	3200	6	.08*	10	.08*
SBR	1	1600	35	.02	34	.02
EBL	1	1600	28	.02*	46	.03*
EBT	2	3200	905	.29	924	.29
EBR	0	0	8		5	
WBL	1	1600	23	.01	23	.01
WBT	2	3200	852	.39*	937	.44*
WBR	0	0	401		473	
TOTAL CAPACITY UTILIZATION				**.51**		**.56**

Note: Assumes N/S Split Phasing

82. Rice & Camino Del Sol

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	106	.07*	129	.08
NBT	3	4800	1169	.24	1664	.35*
NBR	1	1600	46	.03	51	.03
SBL	1	1600	182	.11	290	.18*
SBT	3	4800	1376	.29*	1560	.33
SBR	d	1600	412	.26	275	.17
EBL	1	1600	244	.15*	322	.20*
EBT	2	3200	230	.07	435	.14
EBR	1	1600	45	.03	55	.03
WBL	1	1600	26	.02	44	.03
WBT	2	3200	166	.05*	239	.07*
WBR	1	1600	166	.10	114	.07
TOTAL CAPACITY UTILIZATION				**.56**		**.80**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	65	.04	113	.07*
NBT	3	4800	1800	.38*	1557	.32
NBR	1	1600	46	.03	43	.03
SBL	1	1600	190	.12*	192	.12
SBT	3	4800	1261	.26	1970	.41*
SBR	d	1600	322	.20	324	.20
EBL	1	1600	367	.23*	265	.17*
EBT	2	3200	222	.07	181	.06
EBR	1	1600	37	.02	63	.04
WBL	1	1600	26	.02	44	.03
WBT	2	3200	35	.01*	214	.07*
WBR	1	1600	133	.08	106	.07
TOTAL CAPACITY UTILIZATION				**.74**		**.72**

84. Rice & Fifth

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	44	.03	84	.05
NBT	2	3200	1539	.48*	1401	.44*
NBR	1	1600	496	.31	404	.25
SBL	1	1600	15	.01*	15	.01*
SBT	3	4800	1214	.26	1720	.38
SBR	0	0	46		105	
EBL	1	1600	61	.04	41	.03
EBT	2	3200	519	.17*	556	.18*
EBR	0	0	14		6	
WBL	2	3200	394	.12*	594	.19*
WBT	2	3200	327	.11	523	.17
WBR	0	0	9		20	
TOTAL CAPACITY UTILIZATION				**.78**		**.82**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	77	.05	109	.07*
NBT	2	3200	1859	.58*	1319	.41
NBR	1	1600	627	.39	281	.18
SBL	1	1600	15	.01*	23	.01
SBT	3	4800	1140	.25	2048	.45*
SBR	0	0	46		105	
EBL	1	1600	94	.06	82	.05
EBT	2	3200	658	.21*	515	.16*
EBR	0	0	22		6	
WBL	2	3200	345	.11*	545	.17*
WBT	2	3200	384	.12	564	.18
WBR	0	0	9		20	
TOTAL CAPACITY UTILIZATION				**.91**		**.85**

85. Rice & Wooley

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	39	.02*	88	.06*
NBT	2	3200	1234	.39	1521	.48
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1170	.37*	1671	.52*
SBR	1	1600	253	.16	467	.29
EBL	2	3200	615	.19*	529	.17*
EBT	0	0	0		0	
EBR	1	1600	64	.04	55	.03
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .58 .75

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	39	.02	96	.06*
NBT	2	3200	1897	.59*	1357	.42
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1334	.42	1933	.60*
SBR	1	1600	311	.19	492	.31
EBL	2	3200	781	.24*	496	.16*
EBT	0	0	0		0	
EBR	1	1600	64	.04	71	.04
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .83 .82

87. SR-1/Rice NB & Pleasant Vly

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	98	.03*	336	.11*
NBT	1	1600	2	.01	5	.02
NBR	0	0	21		29	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	351	.22*	215	.13*
EBT	2	3200	1159	.36	1084	.34
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	806	.29*	1554	.55*
WBR	0	0	119		213	

TOTAL CAPACITY UTILIZATION .54 .79

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	114	.04*	336	.11*
NBT	1	1600	2	.02	5	.02
NBR	0	0	37		29	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	376	.24*	207	.13*
EBT	2	3200	1126	.35	1150	.36
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	822	.30*	1546	.55*
WBR	0	0	127		221	

TOTAL CAPACITY UTILIZATION .58 .79

89. Rice & Hueneme

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	37	.02*	15	.01*
SBT	0	0	0		0	
SBR	f		435		210	
EBL	2	3200	235	.07*	462	.14*
EBT	1	1600	499	.31	664	.42
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	519	.32*	775	.48*
WBR	f		19		75	
TOTAL CAPACITY UTILIZATION				**.41**		**.63**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	37	.02*	15	.01*
SBT	0	0	0		0	
SBR	f		296		276	
EBL	2	3200	284	.09*	405	.13*
EBT	1	1600	466	.29	713	.45
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	617	.39*	750	.47*
WBR	f		19		67	
TOTAL CAPACITY UTILIZATION				**.50**		**.61**

92. Del Norte & Camino Del Sol

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	82	.05*	140	.09
NBT	2	3200	516	.16	860	.27*
NBR	d	1600	10	.01	8	.01
SBL	1	1600	38	.02	51	.03*
SBT	2	3200	571	.18*	539	.17
SBR	1	1600	219	.14	226	.14
EBL	1	1600	149	.09*	384	.24*
EBT	1	1600	12	.01	10	.01
EBR	1	1600	52	.03	27	.02
WBL	0	0	10		16	
WBT	1	1600	9	.02*	15	.03*
WBR	0	0	9		13	
TOTAL CAPACITY UTILIZATION				**.34**		**.57**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	66	.04	173	.11*
NBT	2	3200	778	.24*	384	.12
NBR	d	1600	18	.01	8	.01
SBL	1	1600	30	.02*	43	.03
SBT	2	3200	300	.09	637	.20*
SBR	1	1600	47	.03	218	.14
EBL	1	1600	100	.06*	64	.04*
EBT	1	1600	12	.01	10	.01
EBR	1	1600	52	.03	27	.02
WBL	0	0	10		16	
WBT	1	1600	9	.02*	15	.03*
WBR	0	0	9		13	
TOTAL CAPACITY UTILIZATION				**.34**		**.38**

94. Del Norte & 5th St

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	5		0	
SBL	1	1600	71	.04*	57	.04*
SBT	0	0	0		0	
SBR	1	1600	300	.19	336	.21
EBL	1	1600	245	.15	256	.16*
EBT	1	1600	824	.52*	622	.39
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	290	.21	952	.66*
WBR	0	0	43		96	
Right Turn Adjustment					SBR	.05*
TOTAL CAPACITY UTILIZATION				**.56**		**.91**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	5		0	
SBL	1	1600	55	.03*	221	.14*
SBT	0	0	0		0	
SBR	1	1600	243	.15	451	.28
EBL	1	1600	409	.26*	92	.06*
EBT	1	1600	734	.46	630	.39
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	356	.32*	845	.60*
WBR	0	0	158		112	
Right Turn Adjustment					SBR	.09*
TOTAL CAPACITY UTILIZATION				**.61**		**.89**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	487	0	228	0	1131	320	0	1245	306
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	541	0	253	0	1257	356	0	1383	340
RTOR Reduction (vph)	0	0	0	0	0	41	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	541	0	212	0	1257	356	0	1383	340
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				19.5		19.5		62.5	90.0		62.5	90.0
Effective Green, g (s)				20.5		20.5		63.5	90.0		63.5	90.0
Actuated g/C Ratio				0.23		0.23		0.71	1.00		0.71	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				782		361		3588	1583		2497	1583
v/s Ratio Prot				c0.16		0.13		0.25			c0.39	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.69		0.59		0.35	0.22		0.55	0.21
Uniform Delay, d1				31.9		31.0		5.2	0.0		6.4	0.0
Progression Factor				1.00		1.00		0.46	1.00		1.00	1.00
Incremental Delay, d2				2.7		2.4		0.2	0.3		0.9	0.3
Delay (s)				34.5		33.4		2.6	0.3		7.3	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			34.2			2.1			5.9	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	9.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	55.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.85						1.00	0.85		0.96	
Flt Protected	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1504						3539	1583		4890	
Flt Permitted	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1504						3539	1583		4890	
Volume (vph)	153	0	224	0	0	0	0	1270	1000	0	1497	514
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	176	0	257	0	0	0	0	1460	1149	0	1721	591
RTOR Reduction (vph)	0	20	0	0	0	0	0	0	0	0	52	0
Lane Group Flow (vph)	176	237	0	0	0	0	0	1460	1149	0	2260	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	18.7	18.7						63.3	90.0		63.3	
Effective Green, g (s)	19.7	19.7						64.3	90.0		64.3	
Actuated g/C Ratio	0.22	0.22						0.71	1.00		0.71	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	368	329						2528	1583		3494	
v/s Ratio Prot	0.10	0.16						0.41			0.46	
v/s Ratio Perm									c0.73			
v/c Ratio	0.48	0.72						0.58	0.73		0.65	
Uniform Delay, d1	30.7	32.6						6.2	0.0		6.8	
Progression Factor	1.00	1.00						0.96	1.00		0.76	
Incremental Delay, d2	1.0	7.3						0.8	2.5		0.8	
Delay (s)	31.6	39.9						6.8	2.5		6.0	
Level of Service	C	D						A	A		A	
Approach Delay (s)		36.6			0.0			4.9			6.0	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM Average Control Delay	7.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	58.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	877	0	150	0	1270	611	0	1453	343
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	1020	0	174	0	1477	710	0	1690	399
RTOR Reduction (vph)	0	0	0	0	0	19	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1020	0	155	0	1477	710	0	1690	399
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				30.8		30.8		51.2	90.0		51.2	90.0
Effective Green, g (s)				31.8		31.8		52.2	90.0		52.2	90.0
Actuated g/C Ratio				0.35		0.35		0.58	1.00		0.58	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1213		559		2949	1583		2053	1583
v/s Ratio Prot				c0.30		0.10		0.29			c0.48	
v/s Ratio Perm									0.45			0.25
v/c Ratio				0.84		0.28		0.50	0.45		0.82	0.25
Uniform Delay, d1				26.8		20.9		11.2	0.0		15.2	0.0
Progression Factor				1.00		1.00		0.61	1.00		1.00	1.00
Incremental Delay, d2				5.4		0.3		0.5	0.7		3.9	0.4
Delay (s)				32.2		21.1		7.3	0.7		19.1	0.4
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			30.6			5.1			15.5	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	14.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	71.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.89						1.00	0.85		0.97	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1554						3539	1583		4914	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1554						3539	1583		4914	
Volume (vph)	219	0	120	0	0	0	0	1751	976	0	1813	524
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	233	0	128	0	0	0	0	1863	1038	0	1929	557
RTOR Reduction (vph)	0	17	0	0	0	0	0	0	0	0	42	0
Lane Group Flow (vph)	187	157	0	0	0	0	0	1863	1038	0	2444	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	14.7	14.7						67.3	90.0		67.3	
Effective Green, g (s)	15.7	15.7						68.3	90.0		68.3	
Actuated g/C Ratio	0.17	0.17						0.76	1.00		0.76	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	293	271						2686	1583		3729	
v/s Ratio Prot	0.11	0.10						c0.53			0.50	
v/s Ratio Perm									c0.66			
v/c Ratio	0.64	0.58						0.69	0.66		0.66	
Uniform Delay, d1	34.5	34.1						5.5	0.0		5.2	
Progression Factor	1.00	1.00						1.16	1.00		0.78	
Incremental Delay, d2	4.5	3.0						1.4	2.0		0.5	
Delay (s)	39.0	37.1						7.8	2.0		4.6	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.1			0.0			5.8			4.6	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	618	0	236	0	1180	320	0	1384	298
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	687	0	262	0	1311	356	0	1538	331
RTOR Reduction (vph)	0	0	0	0	0	33	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	687	0	229	0	1311	356	0	1538	331
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				23.6		23.6		58.4	90.0		58.4	90.0
Effective Green, g (s)				24.6		24.6		59.4	90.0		59.4	90.0
Actuated g/C Ratio				0.27		0.27		0.66	1.00		0.66	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				938		433		3356	1583		2336	1583
v/s Ratio Prot				c0.20		0.14		0.26			c0.43	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.73		0.53		0.39	0.22		0.66	0.21
Uniform Delay, d1				29.7		27.8		7.0	0.0		9.2	0.0
Progression Factor				1.00		1.00		0.41	1.00		1.00	1.00
Incremental Delay, d2				3.0		1.2		0.3	0.3		1.5	0.3
Delay (s)				32.7		28.9		3.1	0.3		10.7	0.3
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			31.7			2.5			8.8	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	11.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.85						1.00	0.85		0.96	
Flt Protected	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1504						3539	1583		4898	
Flt Permitted	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1504						3539	1583		4898	
Volume (vph)	178	0	183	0	0	0	0	1286	1107	0	1710	555
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	205	0	210	0	0	0	0	1478	1272	0	1966	638
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	0	45	0
Lane Group Flow (vph)	205	199	0	0	0	0	0	1478	1272	0	2559	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	16.5	16.5						65.5	90.0		65.5	
Effective Green, g (s)	17.5	17.5						66.5	90.0		66.5	
Actuated g/C Ratio	0.19	0.19						0.74	1.00		0.74	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	327	292						2615	1583		3619	
v/s Ratio Prot	0.12	0.13						0.42			0.52	
v/s Ratio Perm									c0.80			
v/c Ratio	0.63	0.68						0.57	0.80		0.71	
Uniform Delay, d1	33.3	33.7						5.3	0.0		6.4	
Progression Factor	1.00	1.00						0.95	1.00		0.75	
Incremental Delay, d2	3.7	6.4						0.6	2.9		1.0	
Delay (s)	37.0	40.0						5.6	2.9		5.8	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.5			0.0			4.4			5.8	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	852	0	175	0	1262	685	0	1453	343
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	991	0	203	0	1467	797	0	1690	399
RTOR Reduction (vph)	0	0	0	0	0	20	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	991	0	183	0	1467	797	0	1690	399
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				30.4		30.4		51.6	90.0		51.6	90.0
Effective Green, g (s)				31.4		31.4		52.6	90.0		52.6	90.0
Actuated g/C Ratio				0.35		0.35		0.58	1.00		0.58	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1198		552		2972	1583		2068	1583
v/s Ratio Prot				c0.29		0.12		0.29			c0.48	
v/s Ratio Perm									0.50			0.25
v/c Ratio				0.83		0.33		0.49	0.50		0.82	0.25
Uniform Delay, d1				26.8		21.6		10.9	0.0		14.9	0.0
Progression Factor				1.00		1.00		0.62	1.00		1.00	1.00
Incremental Delay, d2				4.8		0.4		0.4	0.8		3.7	0.4
Delay (s)				31.6		21.9		7.2	0.8		18.6	0.4
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			30.0			4.9			15.1	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	14.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.89						1.00	0.85		0.96	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1551						3539	1583		4901	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1551						3539	1583		4901	
Volume (vph)	211	0	120	0	0	0	0	1817	984	0	1756	557
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	224	0	128	0	0	0	0	1933	1047	0	1868	593
RTOR Reduction (vph)	0	20	0	0	0	0	0	0	0	0	45	0
Lane Group Flow (vph)	182	150	0	0	0	0	0	1933	1047	0	2416	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	14.4	14.4						67.6	90.0		67.6	
Effective Green, g (s)	15.4	15.4						68.6	90.0		68.6	
Actuated g/C Ratio	0.17	0.17						0.76	1.00		0.76	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	288	265						2698	1583		3736	
v/s Ratio Prot	0.11	0.10						c0.55			0.49	
v/s Ratio Perm									c0.66			
v/c Ratio	0.63	0.57						0.72	0.66		0.65	
Uniform Delay, d1	34.7	34.2						5.6	0.0		5.0	
Progression Factor	1.00	1.00						1.16	1.00		0.79	
Incremental Delay, d2	4.5	2.8						1.6	2.1		0.5	
Delay (s)	39.1	37.0						8.1	2.1		4.4	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.1			0.0			5.9			4.4	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

24. Ventura & Wooley

Year 2020 W/Project Phase 3 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	158	.10	170	.11*
NBT	3	4800	944	.21*	1112	.25
NBR	0	0	75		79	
SBL	2	3200	302	.09*	366	.11
SBT	3	4800	790	.18	1081	.25*
SBR	0	0	56		139	
EBL	1	1600	189	.12	197	.12*
EBT	2	3200	702	.22*	664	.21
EBR	1	1600	122	.08	68	.04
WBL	1	1600	132	.08*	315	.20
WBT	2	3200	425	.13	961	.30*
WBR	1	1600	131	.08	197	.12
TOTAL CAPACITY UTILIZATION				**.60**		**.78**

45. Oxnard & Vineyard

Year 2020 W/Project Phase 3 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	89	.03	288	.09
NBT	3	4800	977	.20*	1377	.29*
NBR	2	3200	760	.24	864	.27
SBL	2	3200	99	.03*	180	.06*
SBT	4	6400	1041	.17	1206	.22
SBR	0	0	77		217	
EBL	1.5		276	.17	283	
EBT	2.5	6400	1177	.25*	650	.15*
EBR	1	1600	164	.10	118	.07
WBL	3	4800	602	.13	830	.17
WBT	2	3200	392	.13*	913	.29*
WBR	0	0	13		25	
TOTAL CAPACITY UTILIZATION				**.61**		**.79**

Note: Assumes E/W Split Phasing

66. Rose & Camino del Sol

Year 2020 W/Project Phase 3 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	150	.09*	114	.07*
NBT	3	4800	1367	.32	1507	.33
NBR	0	0	186		100	
SBL	1	1600	330	.21	134	.08
SBT	2	3200	1419	.44*	1473	.46*
SBR	f		114		182	
EBL	2	3200	210	.07	179	.06*
EBT	2	3200	428	.18*	192	.09
EBR	0	0	159		84	
WBL	2	3200	161	.05*	354	.11
WBT	2	3200	141	.04	671	.21*
WBR	1	1600	128	.08	378	.24
TOTAL CAPACITY UTILIZATION				**.76**		**.80**

68. Rose & 5th

Year 2020 W/Project Phase 3 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	13	.01	52	.03*
NBT	3	4800	1305	.33*	1441	.32
NBR	0	0	294		86	
SBL	1	1600	30	.02*	28	.02
SBT	3	4800	1467	.34	1528	.36*
SBR	0	0	149		217	
EBL	2	3200	234	.07	354	.11*
EBT	2	3200	638	.20*	432	.14
EBR	1	1600	47	.03	70	.04
WBL	2	3200	166	.05*	438	.14
WBT	2	3200	251	.08	732	.27*
WBR	0	0	17		121	
TOTAL CAPACITY UTILIZATION				**.60**		**.77**

85. Rice & Wooley

Year 2020 W/Project Phase 3 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	39	.02	96	.06*
NBT	3	4800	1897	.40*	1357	.28
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1334	.28	1933	.40*
SBR	1	1600	311	.19	492	.31
EBL	2	3200	781	.24*	496	.16*
EBT	0	0	0		0	
EBR	1	1600	64	.04	71	.04
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				**.64**		**.62**

94. Del Norte & 5th St

Year 2020 W/Project Phase 3 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	5		0	
SBL	1	1600	55	.03*	221	.14*
SBT	0	0	0		0	
SBR	1	1600	243	.15	451	.28
EBL	1	1600	409	.26	92	.06
EBT	1	1600	734	.46*	630	.39*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	356	.16	845	.30
WBR	0	0	158		112	
Right Turn Adjustment					SBR	.07*
TOTAL CAPACITY UTILIZATION				**.49**		**.60**

121. Rice & Bypass

Year 2020 W/Project Phase 3 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	1384	.29*	852	.18
NBR	1	1600	291	.18	260	.16
SBL	2	3200	5	.00	13	.00
SBT	3	4800	752	.16	1424	.30*
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	305	.10*	429	.13*
WBT	0	0	0		0	
WBR	f		38		46	
TOTAL CAPACITY UTILIZATION				**.39**		**.43**

122. Bypass & Fifth

Year 2020 W/Project Phase 3 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	71	.04*	95	.06*
NBT	0	0	0		0	
NBR	1	1600	220	.14	187	.12
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3200	495	.15*	380	.12*
EBR	1	1600	52	.03	71	.04
WBL	2	3200	291	.09*	405	.13*
WBT	2	3200	268	.08	338	.11
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.03*		
TOTAL CAPACITY UTILIZATION				**.31**		**.31**

20. Ventura & Gonzales

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	151	.09	259	.16
NBT	2	3200	958	.30*	1067	.33*
NBR	1	1600	376	.24	371	.23
SBL	1	1600	142	.09*	251	.16*
SBT	3	4800	898	.22	1401	.31
SBR	0	0	137		93	
EBL	1	1600	244	.15*	235	.15*
EBT	2	3200	298	.09	452	.14
EBR	1	1600	96	.06	135	.08
WBL	2	3200	255	.08	704	.22
WBT	2	3200	329	.13*	544	.21*
WBR	0	0	76		119	

TOTAL CAPACITY UTILIZATION .67 .85

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	131	.08	299	.19
NBT	2	3200	1038	.32*	1107	.35*
NBR	1	1600	356	.22	361	.23
SBL	1	1600	152	.10*	261	.16*
SBT	3	4800	968	.23	1391	.31
SBR	0	0	137		93	
EBL	1	1600	244	.15*	255	.16*
EBT	2	3200	348	.11	462	.14
EBR	1	1600	86	.05	135	.08
WBL	2	3200	235	.07	578	.18
WBT	2	3200	329	.13*	544	.22*
WBR	0	0	86		149	

TOTAL CAPACITY UTILIZATION .70 .89

24. Ventura & Wooley

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	194	.12	210	.13
NBT	3	4800	893	.20*	1097	.25*
NBR	0	0	68		94	
SBL	2	3200	409	.13*	463	.14*
SBT	3	4800	761	.17	1097	.26
SBR	0	0	57		134	
EBL	1	1600	202	.13	218	.14*
EBT	2	3200	668	.21*	753	.24
EBR	1	1600	133	.08	59	.04
WBL	1	1600	151	.09*	358	.22
WBT	2	3200	463	.14	1021	.32*
WBR	1	1600	134	.08	189	.12

TOTAL CAPACITY UTILIZATION .63 .85

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	194	.12	210	.13
NBT	3	4800	903	.20*	1107	.25*
NBR	0	0	78		84	
SBL	2	3200	389	.12*	463	.14*
SBT	3	4800	771	.17	1057	.25
SBR	0	0	47		134	
EBL	1	1600	182	.11	218	.14*
EBT	2	3200	738	.23*	763	.24
EBR	1	1600	153	.10	59	.04
WBL	1	1600	151	.09*	358	.22
WBT	2	3200	463	.14	1081	.34*
WBR	1	1600	114	.07	189	.12

TOTAL CAPACITY UTILIZATION .64 .87

66. Rose & Camino del Sol

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	160	.10*	192	.12*
NBT	3	4800	1315	.30	1539	.34
NBR	0	0	103		80	
SBL	1	1600	219	.14	109	.07
SBT	2	3200	1653	.52*	1581	.49*
SBR	f		118		184	
EBL	2	3200	197	.06	177	.06*
EBT	2	3200	365	.17*	210	.09
EBR	0	0	192		91	
WBL	2	3200	165	.05*	327	.10
WBT	2	3200	126	.04	482	.15*
WBR	1	1600	121	.08	309	.19

TOTAL CAPACITY UTILIZATION .84 .82

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	160	.10*	132	.08*
NBT	3	4800	1435	.33	1599	.35
NBR	0	0	163		80	
SBL	1	1600	369	.23	129	.08
SBT	2	3200	1533	.48*	1571	.49*
SBR	f		128		154	
EBL	2	3200	217	.07	197	.06*
EBT	2	3200	485	.21*	200	.09
EBR	0	0	172		81	
WBL	2	3200	165	.05*	387	.12
WBT	2	3200	136	.04	722	.23*
WBR	1	1600	141	.09	419	.26

TOTAL CAPACITY UTILIZATION .84 .86

68. Rose & 5th

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	12	.01*	66	.04*
NBT	3	4800	1279	.32	1582	.35
NBR	0	0	238		112	
SBL	1	1600	25	.02	15	.01
SBT	3	4800	1677	.39*	1662	.39*
SBR	0	0	173		210	
EBL	2	3200	199	.06	269	.08*
EBT	2	3200	617	.19*	551	.17
EBR	1	1600	53	.03	94	.06
WBL	2	3200	169	.05*	358	.11
WBT	2	3200	237	.08	685	.26*
WBR	0	0	14		131	

TOTAL CAPACITY UTILIZATION .64 .77

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	12	.01	66	.04*
NBT	3	4800	1349	.36*	1542	.34
NBR	0	0	358		102	
SBL	1	1600	25	.02*	25	.02
SBT	3	4800	1607	.37	1642	.39*
SBR	0	0	153		220	
EBL	2	3200	229	.07	349	.11*
EBT	2	3200	707	.22*	491	.15
EBR	1	1600	53	.03	84	.05
WBL	2	3200	179	.06*	508	.16
WBT	2	3200	247	.08	785	.29*
WBR	0	0	14		141	

TOTAL CAPACITY UTILIZATION .66 .83

69. Rose & Wooley

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	54	.03*	77	.05*
NBT	2	3200	1201	.38	1196	.37
NBR	1	1600	101	.06	64	.04
SBL	1	1600	28	.02	25	.02
SBT	2	3200	1478	.46*	1598	.50*
SBR	f		390		434	
EBL	2	3200	339	.11	446	.14*
EBT	2	3200	476	.17*	310	.12
EBR	0	0	54		67	
WBL	1	1600	76	.05*	149	.09
WBT	2	3200	140	.05	528	.17*
WBR	0	0	12		29	
TOTAL CAPACITY UTILIZATION				**.71**		**.86**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	44	.03*	77	.05*
NBT	2	3200	1291	.40	1196	.37
NBR	1	1600	101	.06	64	.04
SBL	1	1600	38	.02	35	.02
SBT	2	3200	1438	.45*	1638	.51*
SBR	f		360		484	
EBL	2	3200	429	.13	426	.13*
EBT	2	3200	426	.15*	290	.11
EBR	0	0	44		67	
WBL	1	1600	136	.09*	189	.12
WBT	2	3200	120	.04	538	.18*
WBR	0	0	12		29	
TOTAL CAPACITY UTILIZATION				**.72**		**.87**

71. Rose & Oxnard

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	189	.12*	335	.21*
NBT	2	3200	1124	.35	1143	.36
NBR	1	1600	15	.01	5	.00
SBL	2	3200	62	.02	67	.02
SBT	2	3200	1131	.35*	1275	.40*
SBR	f		37		57	
EBL	0	0	0		0	
EBT	2	3200	248	.08*	154	.05
EBR	f		193		120	
WBL	0	0	0		0	
WBT	2	3200	127	.04	499	.16*
WBR	f		56		89	
TOTAL CAPACITY UTILIZATION				**.55**		**.77**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	179	.11*	335	.21*
NBT	2	3200	1174	.37	1133	.35
NBR	1	1600	15	.01	5	.00
SBL	2	3200	92	.03	97	.03
SBT	2	3200	1081	.34*	1305	.41*
SBR	f		37		57	
EBL	0	0	0		0	
EBT	2	3200	258	.08*	164	.05
EBR	f		193		120	
WBL	0	0	0		0	
WBT	2	3200	157	.05	519	.16*
WBR	f		76		99	
TOTAL CAPACITY UTILIZATION				**.53**		**.78**

72. Rose & Channel Islands

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	258	.08*	399	.12
NBT	2	3200	978	.31	1098	.34*
NBR	1	1600	230	.14	148	.09
SBL	1	1600	79	.05	153	.10*
SBT	3	4800	1346	.32*	1054	.28
SBR	0	0	178		300	
EBL	2	3200	425	.13	298	.09*
EBT	2	3200	542	.17*	436	.14
EBR	1	1600	236	.15	212	.13
WBL	2	3200	289	.09*	364	.11
WBT	2	3200	403	.13	776	.24*
WBR	1	1600	9	.01	10	.01
TOTAL CAPACITY UTILIZATION				**.66**		**.77**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	248	.08*	389	.12
NBT	2	3200	1028	.32	1098	.34*
NBR	1	1600	270	.17	158	.10
SBL	1	1600	79	.05	153	.10*
SBT	3	4800	1306	.31*	1104	.29
SBR	0	0	158		280	
EBL	2	3200	425	.13	288	.09*
EBT	2	3200	562	.18*	476	.15
EBR	1	1600	236	.15	202	.13
WBL	2	3200	309	.10*	384	.12
WBT	2	3200	443	.14	876	.27*
WBR	1	1600	9	.01	10	.01
TOTAL CAPACITY UTILIZATION				**.67**		**.80**

73. Rose & Bard

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	53	.03*	88	.06
NBT	2	3200	1196	.37	1310	.41*
NBR	1	1600	12	.01	27	.02
SBL	1	1600	145	.09	124	.08*
SBT	2	3200	1480	.46*	956	.30
SBR	1	1600	158	.10	416	.26
EBL	1	1600	247	.15*	170	.11*
EBT	2	3200	182	.07	218	.10
EBR	0	0	53		87	
WBL	1	1600	25	.02	19	.01
WBT	2	3200	135	.08*	388	.17*
WBR	0	0	171	.11	171	
TOTAL CAPACITY UTILIZATION				**.72**		**.77**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	63	.04*	108	.07
NBT	2	3200	1246	.39	1270	.40*
NBR	1	1600	12	.01	27	.02
SBL	1	1600	155	.10	134	.08*
SBT	2	3200	1480	.46*	986	.31
SBR	1	1600	138	.09	436	.27
EBL	1	1600	257	.16*	200	.13*
EBT	2	3200	182	.08	228	.10
EBR	0	0	63		87	
WBL	1	1600	35	.02	19	.01
WBT	2	3200	165	.10*	398	.18*
WBR	0	0	181	.11	181	
TOTAL CAPACITY UTILIZATION				**.76**		**.79**

74. Rose & Pleasant Valley

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	81	.05*	154	.10
NBT	2	3200	787	.25	1072	.34*
NBR	1	1600	134	.08	297	.19
SBL	1	1600	218	.14	126	.08*
SBT	2	3200	1107	.35*	686	.21
SBR	1	1600	330	.21	321	.20
EBL	1	1600	299	.19	246	.15*
EBT	2	3200	727	.23*	614	.19
EBR	1	1600	114	.07	105	.07
WBL	1	1600	313	.20*	221	.14
WBT	2	3200	669	.21	862	.27*
WBR	1	1600	133	.08	76	.05
TOTAL CAPACITY UTILIZATION				**.83**		**.84**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	81	.05*	184	.12
NBT	2	3200	691	.22	1102	.34*
NBR	1	1600	134	.08	277	.17
SBL	1	1600	218	.14	136	.09*
SBT	2	3200	1107	.35*	796	.25
SBR	1	1600	190	.12	321	.20
EBL	1	1600	369	.23	246	.15*
EBT	2	3200	707	.22*	434	.14
EBR	1	1600	134	.08	65	.04
WBL	1	1600	293	.18*	181	.11
WBT	2	3200	469	.15	822	.26*
WBR	1	1600	198	.12	156	.10
TOTAL CAPACITY UTILIZATION				**.80**		**.84**

78. Bard & Pleasant Valley

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	8		8	
NBT	1	1600	8	.02*	8	.02*
NBR	0	0	18		11	
SBL	1.5		209		272	
SBT	0.5	3200	8	.07*	10	.09*
SBR	1	1600	34	.02	28	.02
EBL	1	1600	19	.01*	48	.03*
EBT	2	3200	898	.28	1093	.34
EBR	0	0	9		8	
WBL	1	1600	27	.02	17	.01
WBT	2	3200	981	.42*	986	.44*
WBR	0	0	360		409	
TOTAL CAPACITY UTILIZATION				**.52**		**.58**

Note: Assumes N/S Split Phasing

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	8		8	
NBT	1	1600	8	.02*	8	.02*
NBR	0	0	18		11	
SBL	1.5		209		292	
SBT	0.5	3200	8	.07*	10	.09*
SBR	1	1600	44	.03	38	.02
EBL	1	1600	19	.01*	48	.03*
EBT	2	3200	898	.28	1103	.35
EBR	0	0	9		8	
WBL	1	1600	27	.02	17	.01
WBT	2	3200	981	.43*	956	.44*
WBR	0	0	410		439	
TOTAL CAPACITY UTILIZATION				**.53**		**.58**

Note: Assumes N/S Split Phasing

82. Rice & Camino Del Sol

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	108	.07*	95	.06
NBT	3	4800	1310	.27	1877	.39*
NBR	1	1600	28	.02	55	.03
SBL	1	1600	171	.11	385	.24*
SBT	3	4800	1523	.32*	1755	.37
SBR	d	1600	546	.34	292	.18
EBL	1	1600	297	.19*	411	.26*
EBT	2	3200	240	.08	542	.17
EBR	1	1600	32	.02	52	.03
WBL	1	1600	18	.01	27	.02
WBT	2	3200	183	.06*	190	.06*
WBR	1	1600	213	.13	82	.05

TOTAL CAPACITY UTILIZATION .64 .95

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	58	.04	75	.05
NBT	3	4800	2080	.43*	1747	.36*
NBR	1	1600	28	.02	45	.03
SBL	1	1600	181	.11*	265	.17*
SBT	3	4800	1383	.29	2255	.47
SBR	d	1600	436	.27	352	.22
EBL	1	1600	447	.28*	341	.21*
EBT	2	3200	230	.07	232	.07
EBR	1	1600	22	.01	62	.04
WBL	1	1600	18	.01	27	.02
WBT	2	3200	23	.01*	160	.05*
WBR	1	1600	173	.11	72	.05
Right Turn Adjustment			WBR	.02*		

TOTAL CAPACITY UTILIZATION .85 .79

87. SR-1/Rice NB & Pleasant Vly

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	99	.03*	308	.10*
NBT	1	1600	1	.01	2	.02
NBR	0	0	20		34	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	356	.22*	217	.14*
EBT	2	3200	1235	.39	1277	.40
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	903	.32*	1647	.59*
WBR	0	0	134		227	

TOTAL CAPACITY UTILIZATION .57 .83

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	119	.04*	308	.10*
NBT	1	1600	1	.03	2	.02
NBR	0	0	40		34	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	386	.24*	207	.13*
EBT	2	3200	1195	.37	1357	.42
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	923	.33*	1637	.59*
WBR	0	0	144		237	

TOTAL CAPACITY UTILIZATION .61 .82

89. Rice & Hueneme

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	33	.02*	12	.01*
SBT	0	0	0		0	
SBR	f		572		240	
EBL	2	3200	287	.09*	596	.19*
EBT	1	1600	525	.33	757	.47
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	590	.37*	807	.50*
WBR	f		14		63	
TOTAL CAPACITY UTILIZATION				**.48**		**.70**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	33	.02*	12	.01*
SBT	0	0	0		0	
SBR	f		402		320	
EBL	2	3200	347	.11*	526	.16*
EBT	1	1600	485	.30	817	.51
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	710	.44*	777	.49*
WBR	f		14		53	
TOTAL CAPACITY UTILIZATION				**.57**		**.66**

92. Del Norte & Camino Del Sol

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	96	.06*	125	.08
NBT	2	3200	598	.19	1015	.32*
NBR	d	1600	10	.01	9	.01
SBL	1	1600	34	.02	55	.03*
SBT	2	3200	635	.20*	629	.20
SBR	1	1600	244	.15	243	.15
EBL	1	1600	145	.09*	442	.28*
EBT	1	1600	11	.01	10	.01
EBR	1	1600	31	.02	18	.01
WBL	0	0	10		13	
WBT	1	1600	9	.02*	13	.02*
WBR	0	0	10		12	
TOTAL CAPACITY UTILIZATION				**.37**		**.65**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	76	.05	165	.10*
NBT	2	3200	918	.29*	435	.14
NBR	d	1600	20	.01	9	.01
SBL	1	1600	24	.02*	45	.03
SBT	2	3200	305	.10	749	.23*
SBR	1	1600	34	.02	233	.15
EBL	1	1600	85	.05*	52	.03*
EBT	1	1600	11	.01	10	.01
EBR	1	1600	31	.02	18	.01
WBL	0	0	10		13	
WBT	1	1600	9	.02*	13	.02*
WBR	0	0	10		12	
TOTAL CAPACITY UTILIZATION				**.38**		**.38**

94. Del Norte & 5th St

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	8		0	
SBL	1	1600	70	.04*	59	.04*
SBT	0	0	0		0	
SBR	1	1600	355	.22	403	.25
EBL	1	1600	263	.16	318	.20*
EBT	1	1600	897	.56*	726	.45
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	315	.11	1056	.36*
WBR	0	0	47		103	
Right Turn Adjustment					SBR	.06*
TOTAL CAPACITY UTILIZATION				**.60**		**.66**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	8		0	
SBL	1	1600	50	.03*	259	.16*
SBT	0	0	0		0	
SBR	1	1600	285	.18	543	.34
EBL	1	1600	463	.29	118	.07
EBT	1	1600	787	.49*	736	.46*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	395	.18	926	.33
WBR	0	0	187		123	
Right Turn Adjustment					SBR	.08*
TOTAL CAPACITY UTILIZATION				**.52**		**.70**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	498	0	235	0	1133	320	0	1279	306
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	553	0	261	0	1259	356	0	1421	340
RTOR Reduction (vph)	0	0	0	0	0	40	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	553	0	221	0	1259	356	0	1421	340
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				19.8		19.8		62.2	90.0		62.2	90.0
Effective Green, g (s)				20.8		20.8		63.2	90.0		63.2	90.0
Actuated g/C Ratio				0.23		0.23		0.70	1.00		0.70	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				793		366		3571	1583		2485	1583
v/s Ratio Prot				c0.16		0.14		0.25			c0.40	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.70		0.60		0.35	0.22		0.57	0.21
Uniform Delay, d1				31.7		30.9		5.3	0.0		6.7	0.0
Progression Factor				1.00		1.00		0.50	1.00		1.00	1.00
Incremental Delay, d2				2.7		2.8		0.2	0.3		1.0	0.3
Delay (s)				34.4		33.7		2.9	0.3		7.6	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			34.2			2.3			6.2	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	10.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.85						1.00	0.85		0.96	
Flt Protected	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1504						3539	1583		4883	
Flt Permitted	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1504						3539	1583		4883	
Volume (vph)	111	0	247	0	0	0	0	1305	1060	0	1593	577
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	128	0	284	0	0	0	0	1500	1218	0	1831	663
RTOR Reduction (vph)	0	15	0	0	0	0	0	0	0	0	58	0
Lane Group Flow (vph)	128	269	0	0	0	0	0	1500	1218	0	2436	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	20.0	20.0						62.0	90.0		62.0	
Effective Green, g (s)	21.0	21.0						63.0	90.0		63.0	
Actuated g/C Ratio	0.23	0.23						0.70	1.00		0.70	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	392	351						2477	1583		3418	
v/s Ratio Prot	0.08	0.18						0.42			0.50	
v/s Ratio Perm									c0.77			
v/c Ratio	0.33	0.77						0.61	0.77		0.71	
Uniform Delay, d1	28.6	32.2						7.0	0.0		8.1	
Progression Factor	1.00	1.00						0.99	1.00		0.78	
Incremental Delay, d2	0.5	9.6						1.0	3.3		1.2	
Delay (s)	29.1	41.8						8.0	3.3		7.5	
Level of Service	C	D						A	A		A	
Approach Delay (s)		37.8			0.0			5.9			7.5	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	61.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	949	0	145	0	1300	761	0	1541	371
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	1103	0	169	0	1512	885	0	1792	431
RTOR Reduction (vph)	0	0	0	0	0	17	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1103	0	152	0	1512	885	0	1792	431
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				32.0		32.0		50.0	90.0		50.0	90.0
Effective Green, g (s)				33.0		33.0		51.0	90.0		51.0	90.0
Actuated g/C Ratio				0.37		0.37		0.57	1.00		0.57	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1259		580		2882	1583		2005	1583
v/s Ratio Prot				c0.32		0.10		0.30			c0.51	
v/s Ratio Perm									0.56			0.27
v/c Ratio				0.88		0.26		0.52	0.56		0.89	0.27
Uniform Delay, d1				26.6		20.0		12.0	0.0		17.1	0.0
Progression Factor				1.00		1.00		0.66	1.00		1.00	1.00
Incremental Delay, d2				7.1		0.2		0.5	1.0		6.6	0.4
Delay (s)				33.7		20.2		8.4	1.0		23.8	0.4
Level of Service				C		C		A	A		C	A
Approach Delay (s)		0.0			31.9			5.6			19.2	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	16.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.89						1.00	0.85		0.96	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1548						3539	1583		4880	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1548						3539	1583		4880	
Volume (vph)	189	0	110	0	0	0	0	1961	1093	0	1802	662
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	201	0	117	0	0	0	0	2086	1163	0	1917	704
RTOR Reduction (vph)	0	18	0	0	0	0	0	0	0	0	51	0
Lane Group Flow (vph)	165	135	0	0	0	0	0	2086	1163	0	2570	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	13.6	13.6						68.4	90.0		68.4	
Effective Green, g (s)	14.6	14.6						69.4	90.0		69.4	
Actuated g/C Ratio	0.16	0.16						0.77	1.00		0.77	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	273	251						2729	1583		3763	
v/s Ratio Prot	0.10	0.09						0.59			0.53	
v/s Ratio Perm									c0.73			
v/c Ratio	0.60	0.54						0.76	0.73		0.68	
Uniform Delay, d1	35.0	34.6						5.7	0.0		5.0	
Progression Factor	1.00	1.00						1.17	1.00		0.82	
Incremental Delay, d2	3.7	2.2						2.0	2.9		0.4	
Delay (s)	38.8	36.8						8.7	2.9		4.5	
Level of Service	D	D						A	A		A	
Approach Delay (s)		37.8			0.0			6.7			4.5	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	69.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	658	0	245	0	1193	320	0	1449	296
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	731	0	272	0	1326	356	0	1610	329
RTOR Reduction (vph)	0	0	0	0	0	31	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	731	0	241	0	1326	356	0	1610	329
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				25.3		25.3		56.7	90.0		56.7	90.0
Effective Green, g (s)				26.3		26.3		57.7	90.0		57.7	90.0
Actuated g/C Ratio				0.29		0.29		0.64	1.00		0.64	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1003		463		3260	1583		2269	1583
v/s Ratio Prot				c0.21		0.15		0.26			c0.45	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.73		0.52		0.41	0.22		0.71	0.21
Uniform Delay, d1				28.6		26.6		7.8	0.0		10.6	0.0
Progression Factor				1.00		1.00		0.43	1.00		1.00	1.00
Incremental Delay, d2				2.7		1.1		0.3	0.3		1.9	0.3
Delay (s)				31.3		27.6		3.6	0.3		12.5	0.3
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			30.3			2.9			10.5	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	12.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.85						1.00	0.85		0.96	
Flt Protected	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1504						3539	1583		4892	
Flt Permitted	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1504						3539	1583		4892	
Volume (vph)	141	0	197	0	0	0	0	1325	1190	0	1853	627
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	162	0	226	0	0	0	0	1523	1368	0	2130	721
RTOR Reduction (vph)	0	8	0	0	0	0	0	0	0	0	49	0
Lane Group Flow (vph)	162	218	0	0	0	0	0	1523	1368	0	2802	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.7	17.7						64.3	90.0		64.3	
Effective Green, g (s)	18.7	18.7						65.3	90.0		65.3	
Actuated g/C Ratio	0.21	0.21						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	349	312						2568	1583		3549	
v/s Ratio Prot	0.10	0.14						0.43			0.57	
v/s Ratio Perm									c0.86			
v/c Ratio	0.46	0.70						0.59	0.86		0.79	
Uniform Delay, d1	31.3	33.0						5.9	0.0		7.9	
Progression Factor	1.00	1.00						1.00	1.00		0.81	
Incremental Delay, d2	1.0	6.7						0.8	5.0		1.5	
Delay (s)	32.2	39.7						6.7	5.0		7.9	
Level of Service	C	D						A	A		A	
Approach Delay (s)		36.6			0.0			5.9			7.9	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	8.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	919	0	175	0	1290	851	0	1541	371
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	1069	0	203	0	1500	990	0	1792	431
RTOR Reduction (vph)	0	0	0	0	0	18	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1069	0	185	0	1500	990	0	1792	431
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				31.6		31.6		50.4	90.0		50.4	90.0
Effective Green, g (s)				32.6		32.6		51.4	90.0		51.4	90.0
Actuated g/C Ratio				0.36		0.36		0.57	1.00		0.57	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1244		573		2904	1583		2021	1583
v/s Ratio Prot				c0.31		0.12		0.29			c0.51	
v/s Ratio Perm									0.63			0.27
v/c Ratio				0.86		0.32		0.52	0.63		0.89	0.27
Uniform Delay, d1				26.6		20.7		11.7	0.0		16.8	0.0
Progression Factor				1.00		1.00		0.68	1.00		1.00	1.00
Incremental Delay, d2				6.1		0.3		0.4	1.2		6.2	0.4
Delay (s)				32.7		21.1		8.4	1.2		23.0	0.4
Level of Service				C		C		A	A		C	A
Approach Delay (s)		0.0			30.8			5.5			18.6	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	15.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.88						1.00	0.85		0.96	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1545						3539	1583		4865	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1545						3539	1583		4865	
Volume (vph)	179	0	110	0	0	0	0	2041	1103	0	1732	702
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	190	0	117	0	0	0	0	2171	1173	0	1843	747
RTOR Reduction (vph)	0	22	0	0	0	0	0	0	0	0	55	0
Lane Group Flow (vph)	158	127	0	0	0	0	0	2171	1173	0	2535	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	13.3	13.3						68.7	90.0		68.7	
Effective Green, g (s)	14.3	14.3						69.7	90.0		69.7	
Actuated g/C Ratio	0.16	0.16						0.77	1.00		0.77	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	267	245						2741	1583		3768	
v/s Ratio Prot	0.09	0.08						c0.61			0.52	
v/s Ratio Perm									c0.74			
v/c Ratio	0.59	0.52						0.79	0.74		0.67	
Uniform Delay, d1	35.1	34.7						5.9	0.0		4.8	
Progression Factor	1.00	1.00						1.16	1.00		0.82	
Incremental Delay, d2	3.5	1.9						2.3	3.0		0.4	
Delay (s)	38.6	36.6						9.2	3.0		4.4	
Level of Service	D	D						A	A		A	
Approach Delay (s)		37.6			0.0			7.0			4.4	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

20. Ventura & Gonzales

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	131	.04	299	.09*
NBT	3	4800	1038	.22*	1107	.23
NBR	1	1600	356	.22	361	.23
SBL	1	1600	152	.10*	261	.16
SBT	3	4800	968	.23	1391	.31*
SBR	0	0	137		93	
EBL	1	1600	244	.15*	255	.16*
EBT	2	3200	348	.11	462	.14
EBR	1	1600	86	.05	135	.08
WBL	2	3200	235	.07	578	.18
WBT	2	3200	329	.13*	544	.22*
WBR	0	0	86		149	
TOTAL CAPACITY UTILIZATION				**.60**		**.78**

24. Ventura & Wooley

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	194	.12	210	.13
NBT	3	4800	903	.20*	1107	.25*
NBR	0	0	78		84	
SBL	2	3200	389	.12*	463	.14*
SBT	3	4800	771	.17	1057	.25
SBR	0	0	47		134	
EBL	1	1600	182	.11	218	.14*
EBT	3	4800	738	.19*	763	.17
EBR	0	0	153		59	
WBL	1	1600	151	.09*	358	.22
WBT	3	4800	463	.12	1081	.26*
WBR	0	0	114		189	
TOTAL CAPACITY UTILIZATION				**.60**		**.79**

66. Rose & Camino del Sol

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	160	.10	132	.08*
NBT	3	4800	1435	.33*	1599	.35
NBR	0	0	163		80	
SBL	1	1600	369	.23*	129	.08
SBT	3	4800	1533	.35	1571	.36*
SBR	0	0	128		154	
EBL	2	3200	217	.07	197	.06*
EBT	2	3200	485	.15*	200	.06
EBR	1	1600	172	.11	81	.05
WBL	2	3200	165	.05*	387	.12
WBT	2	3200	136	.04	722	.23*
WBR	1	1600	141	.09	419	.26
TOTAL CAPACITY UTILIZATION				**.76**		**.73**

68. Rose & 5th

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	12	.01	66	.04*
NBT	3	4800	1349	.36*	1542	.34
NBR	0	0	358		102	
SBL	1	1600	25	.02*	25	.02
SBT	3	4800	1607	.33	1642	.34*
SBR	1	1600	153	.10	220	.14
EBL	2	3200	229	.07	349	.11*
EBT	2	3200	707	.22*	491	.15
EBR	1	1600	53	.03	84	.05
WBL	2	3200	179	.06*	508	.16
WBT	2	3200	247	.08	785	.29*
WBR	0	0	14		141	
TOTAL CAPACITY UTILIZATION				**.66**		**.78**

69. Rose & Wooley

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	44	.03	77	.05*
NBT	2	3200	1291	.40*	1196	.37
NBR	1	1600	101	.06	64	.04
SBL	1	1600	38	.02*	35	.02
SBT	3	4800	1438	.30	1638	.34*
SBR	f		360		484	
EBL	2	3200	429	.13	426	.13*
EBT	2	3200	426	.15*	290	.11
EBR	0	0	44		67	
WBL	1	1600	136	.09*	189	.12
WBT	2	3200	120	.04	538	.18*
WBR	0	0	12		29	

TOTAL CAPACITY UTILIZATION .66 .70

72. Rose & Channel Islands

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	248	.08*	389	.12*
NBT	3	4800	1028	.21	1098	.23
NBR	1	1600	270	.17	158	.10
SBL	1	1600	79	.05	153	.10
SBT	3	4800	1306	.31*	1104	.29*
SBR	0	0	158		280	
EBL	2	3200	425	.13	288	.09*
EBT	2	3200	562	.18*	476	.15
EBR	1	1600	236	.15	202	.13
WBL	2	3200	309	.10*	384	.12
WBT	2	3200	443	.14	876	.27*
WBR	1	1600	9	.01	10	.01

TOTAL CAPACITY UTILIZATION .67 .77

73. Rose & Bard

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	63	.04*	108	.07*
NBT	3	4800	1246	.26	1270	.27
NBR	0	0	12		27	
SBL	1	1600	155	.10	134	.08
SBT	3	4800	1480	.34*	986	.30*
SBR	0	0	138		436	
EBL	1	1600	257	.16*	200	.13*
EBT	2	3200	182	.08	228	.10
EBR	0	0	63		87	
WBL	1	1600	35	.02	19	.01
WBT	2	3200	165	.10*	398	.18*
WBR	0	0	181	.11	181	

TOTAL CAPACITY UTILIZATION .64 .68

74. Rose & Pleasant Valley

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	81	.05*	184	.12
NBT	3	4800	691	.17	1102	.29*
NBR	0	0	134		277	
SBL	1	1600	218	.14	136	.09*
SBT	3	4800	1107	.27*	796	.23
SBR	0	0	190		321	
EBL	1	1600	369	.23	246	.15*
EBT	2	3200	707	.22*	434	.14
EBR	1	1600	134	.08	65	.04
WBL	1	1600	293	.18*	181	.11
WBT	2	3200	469	.15	822	.26*
WBR	1	1600	198	.12	156	.10

TOTAL CAPACITY UTILIZATION .72 .79

82. Rice & Camino Del Sol

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	58	.04	75	.05
NBT	3	4800	2080	.43*	1747	.36*
NBR	1	1600	28	.02	45	.03
SBL	1	1600	181	.11*	265	.17*
SBT	3	4800	1383	.29	2255	.47
SBR	d	1600	436	.27	352	.22
EBL	2	3200	447	.14*	341	.11*
EBT	2	3200	230	.07	232	.07
EBR	1	1600	22	.01	62	.04
WBL	1	1600	18	.01	27	.02
WBT	2	3200	23	.01*	160	.05*
WBR	1	1600	173	.11	72	.05
Right Turn Adjustment			WBR	.02*		
TOTAL CAPACITY UTILIZATION				**.71**		**.69**

87. SR-1/Rice NB & Pleasant Vly

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	119	.04*	308	.10*
NBT	1	1600	1	.03	2	.02
NBR	0	0	40		34	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	386	.24*	207	.13*
EBT	2	3200	1195	.37	1357	.42
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	923	.29*	1637	.51*
WBR	1	1600	144	.09	237	.15
TOTAL CAPACITY UTILIZATION				**.57**		**.74**

81. Rice & Gonzales

OTM 2030 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	340	.11*	330	.10
NBT	4.5	9600	1400	{.19}	2670	.33*
NBR	1.5		520		140	
SBL	2	3200	800	.25	350	.11*
SBT	4	6400	2500	.39*	1660	.26
SBR	f		920		520	
EBL	2	3200	190	.06	270	.08*
EBT	4	6400	1490	.23*	1140	.18
EBR	1	1600	220	.14	320	.20
WBL	3	4800	250	.05*	650	.14
WBT	3	4800	620	.13	1310	.27*
WBR	1	1600	160	.10	420	.26
TOTAL CAPACITY UTILIZATION				**.78**		**.79**

APPENDIX A

LEVEL OF SERVICE DEFINITIONS
TRAFFIC COUNTS

Table A-1

LEVEL OF SERVICE DESCRIPTIONS - INTERSECTIONS

Levels of service (LOS) is defined in terms of control delay as follows:

		HCM		ICU
		Delay Per Vehicle (sec.)		
LOS	**DESCRIPTION**	**Signalized**	**Un-signalized**	**Volume/ Capacity**
A	LOS A describes operations with low control delay, up to 10 seconds per vehicle. This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.	< 10.0	< 10.0	< .61
B	LOS B describes operations with control delay greater than 10 and up to 20 seconds per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than the LOS A, causing higher levels of delay.	10.1 – 20.0	10.1 – 15.0	.61 - .70
C	LOS C describes operations with control delay greater than 20 and up to 35 seconds per vehicle. These higher delays may result from only fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.	20.1 – 35.0	15.1 – 25.0	.71 - .80
D	LOS D describes operations with control delay greater than 35 and up to 55 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high V/C ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	35.1 – 55.0	25.1 – 35.0	.81 - .90
E	LOS E describes operations with control delay greater than 55 and up to 80 seconds per vehicle. These high delay values generally indicate poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent.	55.1 – 80.0	35.1 – 50.0	.91 – 1.00
F	LOS F describes operations with control delay in excess of 80 seconds per vehicle. This level, considered unacceptable to most drivers, often occurs with over saturation, that is, when arrival flow rates exceed the capacity of lane groups. It may also occur at high V/C ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.	> 80.1	> 50.1	> 1.00

Source: Highway Capacity Manual 2000, Transportation Research Board, National Research Council.

INTERSECTION CAPACITY UTILIZATION

Peak hour intersection volume/capacity ratios are calculated by means of intersection capacity utilization (ICU) values. ICU calculations were performed for the intersections shown in Figure A-1. For simplicity, signalization is assumed at each intersection. Precise ICU calculations of existing non-signalized intersections would require a more detailed analysis.

The procedure is based on the critical movement methodology, and shows the amount of capacity utilized by each critical move. A capacity of 1700 vehicles per hour (VPH) per lane is assumed together with a .05 clearance interval. A "de-facto" right-turn lane is used in the ICU calculation for cases where a curb lane is wide enough to separately serve both thru and right-turn traffic (typically with a width of 19 feet from curb to outside of thru-lane with parking prohibited during peak periods). Such lanes are treated the same as striped right-turn lanes during the ICU calculations, but they are denoted on the ICU calculation worksheets using the letter "d" in place of a numerical entry for right-turn lanes.

The methodology also incorporates a check for right-turn capacity utilization. Both right-turn-on-green (RTOG) and right-turn-on-red (RTOR) capacity availability are calculated and checked against the total right-turn capacity need. If insufficient capacity is available, then an adjustment is made to the total capacity utilization value. The following example shows how this adjustment is made.

Example For Northbound Right

1. Right-Turn-On-Green (RTOG)

If NBT is critical move, then:
RTOG = V/C (NBT)
Otherwise,
RTOG = V/C (NBL) + V/C (SBT) - V/C (SBL)

2. Right-Turn-On-Red (RTOR)

If WBL is critical move, then:
RTOR = V/C (WBL)
Otherwise,
RTOR = V/C (EBL) + V/C (WBT) - V/C (EBT)

3. Right-Turn Overlap Adjustment

If the northbound right is assumed to overlap with the adjacent westbound left, adjustments to the RTOG and RTOR values are made as follows:

RTOG = RTOG + V/C (WBL)
RTOR = RTOR - V/C (WBL)

4. Total Right-Turn Capacity (RTC) Availability For NBR

RTC = RTOG + factor x RTOR
Where factor = RTOR saturation flow factor (75%)

Right-turn adjustment is then as follows: Additional ICU = V/C (NBR) - RTC

A zero or negative value indicates that adequate capacity is available and no adjustment is necessary. A positive value indicates that the available RTOR and RTOG capacity does not adequately accommodate the right-turn V/C, therefore the right-turn is essentially considered to be a critical movement. In such cases, the right-turn adjustment is noted on the ICU worksheet and it is included in the total capacity utilization value. When it is determined that a right-turn adjustment is required for more than one right-turn movement, the word "multi" is printed on the worksheet instead of an actual right-turn movement reference, and the right-turn adjustments are cumulatively added to the total capacity utilization value. In such cases, further operational evaluation is typically carried out to determine if under actual operational conditions, the critical right-turns would operate simultaneously, and therefore a right-turn adjustment credit should be applied.

Shared Lane V/C Methodology

For intersection approaches where shared usage of a lane is permitted by more than one turn movement (e.g., left/thru, thru/right, left/thru/right), the individual turn volumes are evaluated to determine whether dedication of the shared lane is warranted to any one given turn movement. The following example demonstrates how this evaluation is carried out:

Example for Shared Left/Thru Lane

1. Average Lane Volume (ALV)

$$\text{ALV} = \frac{\text{Left-Turn Volume + Thru Volume}}{\text{Total Left + Thru Approach Lanes (including shared lane)}}$$

2. ALV for Each Approach

$$\text{ALV (Left)} = \frac{\text{Left-Turn Volume}}{\text{Left Approach Lanes (including shared lane)}}$$

$$\text{ALV (Thru)} = \frac{\text{Thru Volume}}{\text{Thru Approach Lanes (including shared lane)}}$$

3. Lane Dedication is Warranted

If ALV (Left) is greater than ALV then full dedication of the shared lane to the left-turn approach is warranted. Left-turn and thru V/C ratios for this case are calculated as follows:

$$\text{V/C (Left)} = \frac{\text{Left-Turn Volume}}{\text{Left Approach Capacity (including shared lane)}}$$

$$\text{V/C (Thru)} = \frac{\text{Thru Volume}}{\text{Thru Approach Capacity (excluding shared lane)}}$$

Similarly, if ALV (Thru) is greater than ALV then full dedication to the thru approach is warranted, and left-turn and thru V/C ratios are calculated as follows:

$$\text{V/C (Left)} = \frac{\text{Left-Turn Volume}}{\text{Left Approach Capacity (excluding shared lane)}}$$

$$\text{V/C (Thru)} = \frac{\text{Thru Volume}}{\text{Thru Approach Capacity (including shared lane)}}$$

4. Lane Dedication is not Warranted

If ALV (Left) and ALV (Thru) are both less than ALV, the left/thru lane is assumed to be truly shared and each left, left/thru or thru approach lane carries an evenly distributed volume of traffic equal to ALV. A combined left/thru V/C ratio is calculated as follows:

$$\text{V/C (Left/Thru)} = \frac{\text{Left-Turn Volume + Thru Volume}}{\text{Total Left + Thru Approach Capacity (including shared lane)}}$$

This V/C (Left/Thru) ratio is assigned as the V/C (Thru) ratio for the critical movement analysis and ICU summary listing.

If split phasing has not been designated for this approach, the relative proportion of V/C (Thru) that is attributed to the left-turn volume is estimated as follows:

If approach has more than one left-turn (including shared lane), then:
V/C (Left) = V/C (Thru)

If approach has only one left-turn lane (shared lane), then:

$$V/C\ (Left) = \frac{\text{Left-Turn Volume}}{\text{Single Approach Lane Capacity}}$$

If this left-turn movement is determined to be a critical movement, the V/C (Left) value is posted in brackets on the ICU summary printout.

These same steps are carried out for shared thru/right lanes. If full dedication of a shared thru/right lane to the right-turn movement is warranted, the right-turn V/C value calculated in step three is checked against the RTOR and RTOG capacity availability if the option to include right-turns in the V/C ratio calculations is selected. If the V/C value that is determined using the shared lane methodology described here is reduced due to RTOR and RTOG capacity availability, the V/C value for the thru/right lanes is posted in brackets.

When an approach contains more than one shared lane (e.g., left/thru and thru/right), steps one and two listed above are carried out for the three turn movements combined. Step four is carried out if dedication is not warranted for either of the shared lanes. If dedication of one of the shared lanes is warranted to one movement or another, step three is carried out for the two movements involved, and then steps one through four are repeated for the two movements involved in the other shared lane.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 20, 2007
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S RICE AVENUE
E/W FIFTH AVENUE
CITY: OXNARD

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	16	2	18	177	11	188	7	0	7	2	0	2	30	2	32	25	2	27
715-730	29	4	33	208	17	225	7	1	8	2	0	2	49	3	52	28	4	32
730-745	28	3	31	194	9	203	7	0	7	4	0	4	53	4	57	41	2	43
745-800	26	1	27	216	18	234	10	0	10	7	0	7	84	4	88	30	6	36
800-815	24	3	27	167	7	174	5	0	5	8	0	8	62	6	68	30	3	33
815-830	15	4	19	138	9	147	4	1	5	2	0	2	80	5	85	38	0	38
830-845	19	6	25	130	10	140	4	1	5	5	1	6	58	7	65	33	2	35
845-900	19	7	26	122	14	136	5	1	6	3	0	3	45	14	59	21	0	21
900-915	26	1	27	131	18	149	4	0	4	7	0	7	51	7	58	17	2	19
915-930	19	5	24	88	14	102	4	0	4	7	0	7	46	3	49	19	4	23
930-945	25	3	28	133	13	146	5	1	6	2	0	2	45	5	50	22	2	24
945-1000	18	2	20	103	18	121	9	0	9	8	0	8	45	6	51	11	1	12
HOUR TOTALS																		
700-800	99	10	109	795	55	850	31	1	32	15	0	15	216	13	229	124	14	138
715-815	107	11	118	785	51	836	29	1	30	21	0	21	248	17	265	129	15	144
730-830	93	11	104	715	43	758	26	1	27	21	0	21	279	19	298	139	11	150
745-845	84	14	98	651	44	695	23	2	25	22	1	23	284	22	306	131	11	142
800-900	77	20	97	557	40	597	18	3	21	18	1	19	245	32	277	122	5	127
815-915	79	18	97	521	51	572	17	3	20	17	1	18	234	33	267	109	4	113
830-930	83	19	102	471	56	527	17	2	19	22	1	23	200	31	231	90	8	98
845-945	89	16	105	474	59	533	18	2	20	19	0	19	187	29	216	79	8	87
900-1000	88	11	99	455	63	518	22	1	23	24	0	24	187	21	208	69	9	78

PEAK HOUR
715-815

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	88	1	89	227	7	234	3	1	4	1	0	1	65	5	70	23	3	26	664	34	698
715-730	107	3	110	267	12	279	1	0	1	5	0	5	75	4	79	34	2	36	812	50	862
730-745	111	2	113	277	14	291	5	0	5	3	0	3	108	6	114	21	4	25	852	44	896
745-800	94	3	97	317	14	331	3	1	4	5	0	5	129	8	137	34	7	41	955	62	1017
800-815	70	1	71	229	18	247	4	0	4	6	0	6	82	5	87	30	7	37	717	50	767
815-830	67	5	72	215	15	230	2	1	3	3	0	3	82	5	87	21	2	23	667	47	714
830-845	45	4	49	142	12	154	2	0	2	1	0	1	39	7	46	10	3	13	488	53	541
845-900	51	2	53	141	20	161	3	0	3	1	1	2	50	11	61	14	11	25	475	81	556
900-915	30	2	32	114	19	133	4	0	4	5	5	10	52	11	63	10	4	14	451	69	520
915-930	24	2	26	107	21	128	1	1	2	3	0	3	38	7	45	11	5	16	367	62	429
930-945	31	3	34	118	22	140	1	1	2	1	0	1	53	6	59	16	4	20	452	60	512
945-1000	35	2	37	119	15	134	0	2	2	1	0	1	27	5	32	8	5	13	384	56	440
HOUR TOTALS																					
700-800	400	9	409	1088	47	1135	12	2	14	14	0	14	377	23	400	112	16	128	3283	190	3473
715-815	382	9	391	1090	58	1148	13	1	14	19	0	19	394	23	417	119	20	139	3336	206	3542
730-830	342	11	353	1038	61	1099	14	2	16	17	0	17	401	24	425	106	20	126	3191	203	3394
745-845	276	13	289	903	59	962	11	2	13	15	0	15	332	25	357	95	19	114	2827	212	3039
800-900	233	12	245	727	65	792	11	1	12	11	1	12	253	28	281	75	23	98	2347	231	2578
815-915	193	13	206	612	66	678	11	1	12	10	6	16	223	34	257	55	20	75	2081	250	2331
830-930	150	10	160	504	72	576	10	1	11	10	6	16	179	36	215	45	23	68	1781	265	2046
845-945	136	9	145	480	82	562	9	2	11	10	6	16	193	35	228	51	24	75	1745	272	2017
900-1000	120	9	129	458	77	535	6	4	10	10	5	15	170	29	199	45	18	63	1654	247	1901

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY SEPTEMBER 20, 2007
PERIOD:		3:00 PM TO 6:00 PM
INTERSECTION:	N/S	RICE AVENUE
	E/W	FIFTH AVENUE
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	37	6	43	204	13	217	3	1	4	16	1	17	89	9	98	64	1	65
315-330	50	4	54	217	14	231	5	2	7	7	0	7	97	3	100	62	1	63
330-345	52	6	58	247	12	259	15	0	15	7	0	7	98	6	104	68	0	68
345-400	64	2	66	302	25	327	7	1	8	17	2	19	122	9	131	105	1	106
400-415	57	3	60	281	7	288	5	0	5	2	0	2	126	11	137	69	2	71
415-430	30	1	31	241	8	249	9	0	9	11	1	12	110	3	113	65	1	66
430-445	68	4	72	344	8	352	9	0	9	16	0	16	139	1	140	78	1	79
445-500	61	2	63	342	11	353	6	0	6	22	0	22	159	7	166	81	0	81
500-515	57	4	61	389	9	398	10	0	10	19	0	19	173	4	177	102	0	102
515-530	48	4	52	288	8	296	5	0	5	7	0	7	114	3	117	64	0	64
530-545	72	5	77	360	11	371	10	0	10	23	0	23	139	9	148	87	0	87
545-600	34	3	37	282	1	283	1	0	1	5	0	5	118	0	118	53	1	54
HOUR TOTALS																		
300-400	203	18	221	970	64	1034	30	4	34	47	3	50	406	27	433	299	3	302
315-415	223	15	238	1047	58	1105	32	3	35	33	2	35	443	29	472	304	4	308
330-430	203	12	215	1071	52	1123	36	1	37	37	3	40	456	29	485	307	4	311
345-445	219	10	229	1168	48	1216	30	1	31	46	3	49	497	24	521	317	5	322
400-500	216	10	226	1208	34	1242	29	0	29	51	1	52	534	22	556	293	4	297
415-515	216	11	227	1316	36	1352	34	0	34	68	1	69	581	15	596	326	2	328
430-530	234	14	248	1363	36	1399	30	0	30	64	0	64	585	15	600	325	1	326
445-545	238	15	253	1379	39	1418	31	0	31	71	0	71	585	23	608	334	0	334
500-600	211	16	227	1319	29	1348	26	0	26	54	0	54	544	16	560	306	1	307

PEAK HOUR
415-515

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	49	2	51	184	24	208	7	0	7	2	0	2	69	8	77	22	2	24	746	67	813
315-330	51	2	53	179	19	198	11	0	11	3	0	3	51	9	60	23	5	28	756	59	815
330-345	69	2	71	245	27	272	7	4	11	4	1	5	51	8	59	26	3	29	889	69	958
345-400	71	2	73	279	22	301	11	0	11	7	0	7	70	5	75	32	0	32	1087	69	1156
400-415	50	3	53	246	21	267	8	0	8	0	0	0	35	2	37	20	3	23	899	52	951
415-430	75	1	76	319	23	342	16	1	17	8	2	10	56	8	64	19	2	21	959	51	1010
430-445	64	3	67	278	13	291	2	2	4	3	0	3	66	4	70	30	2	32	1097	38	1135
445-500	66	2	68	261	14	275	7	1	8	4	1	5	41	4	45	23	2	25	1073	44	1117
500-515	67	3	70	305	12	317	14	4	18	3	1	4	95	0	95	27	4	31	1261	41	1302
515-530	56	5	61	225	9	234	5	0	5	3	0	3	59	3	62	12	2	14	886	34	920
530-545	47	0	47	208	12	220	11	0	11	2	0	2	58	3	61	28	2	30	1045	42	1087
545-600	36	0	36	179	10	189	5	0	5	0	0	0	63	3	66	14	1	15	790	19	809
HOUR TOTALS																					
300-400	240	8	248	887	92	979	36	4	40	16	1	17	241	30	271	103	10	113	3478	264	3742
315-415	241	9	250	949	89	1038	37	4	41	14	1	15	207	24	231	101	11	112	3631	249	3880
330-430	265	8	273	1089	93	1182	42	5	47	19	3	22	212	23	235	97	8	105	3834	241	4075
345-445	260	9	269	1122	79	1201	37	3	40	18	2	20	227	19	246	101	7	108	4042	210	4252
400-500	255	9	264	1104	71	1175	33	4	37	15	3	18	198	18	216	92	9	101	4028	185	4213
415-515	272	9	281	1163	62	1225	39	8	47	18	4	22	258	16	274	99	10	109	4390	174	4564
430-530	253	13	266	1069	48	1117	28	7	35	13	2	15	261	11	272	92	10	102	4317	157	4474
445-545	236	10	246	999	47	1046	37	5	42	12	2	14	253	10	263	90	10	100	4265	161	4426
500-600	206	8	214	917	43	960	35	4	39	8	1	9	275	9	284	81	9	90	3982	136	4118

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 5, 2007
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S ROSE AVENUE
E/W CAMINO DEL SOL
CITY: OXNARD

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	9	0	9	158	16	174	30	0	30	15	1	16	37	1	38	24	1	25
715-730	17	0	17	241	10	251	37	1	38	14	0	14	38	0	38	24	1	25
730-745	20	0	20	272	12	284	41	1	42	29	1	30	28	0	28	45	3	48
745-800	24	0	24	340	14	354	49	0	49	24	0	24	54	1	55	41	2	43
800-815	15	1	16	294	13	307	49	2	51	20	3	23	26	1	27	34	0	34
815-830	6	0	6	232	13	245	23	0	23	18	1	19	19	2	21	38	1	39
830-845	19	0	19	172	18	190	20	1	21	16	1	17	22	2	24	30	1	31
845-900	17	0	17	185	15	200	21	0	21	20	4	24	13	2	15	32	2	34
900-915	19	1	20	199	16	215	21	0	21	15	0	15	18	0	18	36	0	36
915-930	23	0	23	210	11	221	9	1	10	12	1	13	21	0	21	27	2	29
930-945	15	0	15	171	16	187	10	2	12	14	2	16	19	1	20	27	0	27
945-1000	21	1	22	197	23	220	17	1	18	14	1	15	20	1	21	12	0	12
HOUR TOTALS																		
700-800	70	0	70	1011	52	1063	157	2	159	82	2	84	157	2	159	134	7	141
715-815	76	1	77	1147	49	1196	176	4	180	87	4	91	146	2	148	144	6	150
730-830	65	1	66	1138	52	1190	162	3	165	91	5	96	127	4	131	158	6	164
745-845	64	1	65	1038	58	1096	141	3	144	78	5	83	121	6	127	143	4	147
800-900	57	1	58	883	59	942	113	3	116	74	9	83	80	7	87	134	4	138
815-915	61	1	62	788	62	850	85	1	86	69	6	75	72	6	78	136	4	140
830-930	78	1	79	766	60	826	71	2	73	63	6	69	74	4	78	125	5	130
845-945	74	1	75	765	58	823	61	3	64	61	7	68	71	3	74	122	4	126
900-1000	78	2	80	777	66	843	57	4	61	55	4	59	78	2	80	102	2	104

PEAK HOUR
715-815

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	38	1	39	217	17	234	49	0	49	57	0	57	42	1	43	37	0	37	713	38	751
715-730	55	1	56	233	10	243	53	1	54	27	0	27	78	4	82	27	0	27	844	28	872
730-745	54	0	54	304	19	323	23	1	24	41	0	41	56	0	56	46	0	46	959	37	996
745-800	54	1	55	280	12	292	28	0	28	31	0	31	62	0	62	62	0	62	1049	30	1079
800-815	49	1	50	290	15	305	21	0	21	34	0	34	47	0	47	53	0	53	932	36	968
815-830	34	1	35	253	10	263	10	0	10	20	0	20	42	0	42	24	0	24	719	28	747
830-845	29	0	29	242	17	259	19	0	19	25	1	26	15	0	15	28	0	28	637	41	678
845-900	23	3	26	250	12	262	11	0	11	18	0	18	15	0	15	23	0	23	628	38	666
900-915	25	3	28	258	20	278	15	0	15	21	1	22	21	0	21	27	0	27	675	41	716
915-930	17	0	17	176	6	182	14	0	14	10	0	10	15	0	15	16	0	16	550	21	571
930-945	24	0	24	208	7	215	10	0	10	6	0	6	17	0	17	24	0	24	545	28	573
945-1000	19	1	20	219	11	230	10	0	10	11	0	11	17	0	17	21	0	21	578	39	617
HOUR TOTALS																					
700-800	201	3	204	1034	58	1092	153	2	155	156	0	156	238	5	243	172	0	172	3565	133	3698
715-815	212	3	215	1107	56	1163	125	2	127	133	0	133	243	4	247	188	0	188	3784	131	3915
730-830	191	3	194	1127	56	1183	82	1	83	126	0	126	207	0	207	185	0	185	3659	131	3790
745-845	166	3	169	1065	54	1119	78	0	78	110	1	111	166	0	166	167	0	167	3337	135	3472
800-900	135	5	140	1035	54	1089	61	0	61	97	1	98	119	0	119	128	0	128	2916	143	3059
815-915	111	7	118	1003	59	1062	55	0	55	84	2	86	93	0	93	102	0	102	2659	148	2807
830-930	94	6	100	926	55	981	59	0	59	74	2	76	66	0	66	94	0	94	2490	141	2631
845-945	89	6	95	892	45	937	50	0	50	55	1	56	68	0	68	90	0	90	2398	128	2526
900-1000	85	4	89	861	44	905	49	0	49	48	1	49	70	0	70	88	0	88	2348	129	2477

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 5, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S ROSE AVENUE
E/W CAMINO DEL SOL
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	12	0	12	203	16	219	16	1	17	32	0	32	45	0	45	32	0	32
315-330	37	0	37	286	14	300	29	0	29	25	1	26	63	1	64	35	0	35
330-345	22	0	22	255	9	264	39	0	39	38	2	40	74	0	74	40	0	40
345-400	30	1	31	310	17	327	20	1	21	29	0	29	58	0	58	77	0	77
400-415	79	1	80	341	11	352	46	1	47	26	0	26	90	0	90	47	1	48
415-430	39	0	39	277	12	289	21	0	21	47	1	48	78	2	80	43	4	47
430-445	76	0	76	334	10	344	46	0	46	82	0	82	118	2	120	86	1	87
445-500	67	0	67	289	9	298	23	3	26	39	0	39	100	0	100	41	0	41
500-515	37	0	37	274	5	279	37	0	37	58	0	58	124	0	124	60	0	60
515-530	83	0	83	320	7	327	30	0	30	59	1	60	110	2	112	64	0	64
530-545	47	0	47	305	4	309	15	0	15	22	0	22	114	1	115	61	1	62
545-600	62	1	63	434	9	443	31	1	32	51	0	51	125	0	125	85	0	85
HOUR TOTALS																		
300-400	101	1	102	1054	56	1110	104	2	106	124	3	127	240	1	241	184	0	184
315-415	168	2	170	1192	51	1243	134	2	136	118	3	121	285	1	286	199	1	200
330-430	170	2	172	1183	49	1232	126	2	128	140	3	143	300	2	302	207	5	212
345-445	224	2	226	1262	50	1312	133	2	135	184	1	185	344	4	348	253	6	259
400-500	261	1	262	1241	42	1283	136	4	140	194	1	195	386	4	390	217	6	223
415-515	219	0	219	1174	36	1210	127	3	130	226	1	227	420	4	424	230	5	235
430-530	263	0	263	1217	31	1248	136	3	139	238	1	239	452	4	456	251	1	252
445-545	234	0	234	1188	25	1213	105	3	108	178	1	179	448	3	451	226	1	227
500-600	229	1	230	1333	25	1358	113	1	114	190	1	191	473	3	476	270	1	271

PEAK HOUR
430-530

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	33	1	34	314	14	328	29	0	29	18	0	18	35	0	35	33	0	33	802	32	834
315-330	38	1	39	352	12	364	36	0	36	33	0	33	37	0	37	37	0	37	1008	29	1037
330-345	26	0	26	321	14	335	24	0	24	21	0	21	33	0	33	25	0	25	918	25	943
345-400	21	2	23	264	8	272	24	0	24	22	0	22	26	0	26	23	0	23	904	29	933
400-415	28	0	28	334	8	342	21	0	21	31	0	31	37	0	37	26	0	26	1106	22	1128
415-430	37	0	37	324	6	330	21	0	21	18	0	18	34	0	34	21	0	21	960	25	985
430-445	32	1	33	346	16	362	22	0	22	21	0	21	44	2	46	37	0	37	1244	32	1276
445-500	32	1	33	272	8	280	24	1	25	12	0	12	40	0	40	26	0	26	965	22	987
500-515	43	0	43	310	4	314	26	0	26	35	0	35	53	0	53	29	0	29	1086	9	1095
515-530	39	0	39	301	10	311	24	0	24	27	0	27	38	0	38	40	0	40	1135	20	1155
530-545	29	0	29	263	9	272	32	0	32	30	0	30	29	0	29	26	0	26	973	15	988
545-600	28	0	28	259	11	270	23	0	23	24	0	24	30	0	30	22	0	22	1174	22	1196
HOUR TOTALS																					
300-400	118	4	122	1251	48	1299	113	0	113	94	0	94	131	0	131	118	0	118	3632	115	3747
315-415	113	3	116	1271	42	1313	105	0	105	107	0	107	133	0	133	111	0	111	3936	105	4041
330-430	112	2	114	1243	36	1279	90	0	90	92	0	92	130	0	130	95	0	95	3888	101	3989
345-445	118	3	121	1268	38	1306	88	0	88	92	0	92	141	2	143	107	0	107	4214	108	4322
400-500	129	2	131	1276	38	1314	88	1	89	82	0	82	155	2	157	110	0	110	4275	101	4376
415-515	144	2	146	1252	34	1286	93	1	94	86	0	86	171	2	173	113	0	113	4255	88	4343
430-530	146	2	148	1229	38	1267	96	1	97	95	0	95	175	2	177	132	0	132	4430	83	4513
445-545	143	1	144	1146	31	1177	106	1	107	104	0	104	160	0	160	121	0	121	4159	66	4225
500-600	139	0	139	1133	34	1167	105	0	105	116	0	116	150	0	150	117	0	117	4368	66	4434

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 6, 2007
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S ROSE AVENUE
E/W CHANNEL ISLANDS BOULEVARD
CITY: OXNARD

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	25	1	26	49	0	49	24	1	25	3	0	3	30	4	34	14	0	14
715-730	34	1	35	91	0	91	28	1	29	2	0	2	60	1	61	33	1	34
730-745	45	2	47	156	0	156	31	0	31	0	0	0	70	3	73	57	2	59
745-800	27	1	28	140	0	140	13	0	13	2	0	2	65	6	71	31	0	31
800-815	27	0	27	138	2	140	34	1	35	0	0	0	73	1	74	29	0	29
815-830	44	1	45	108	0	108	26	0	26	2	1	3	64	1	65	31	0	31
830-845	43	0	43	109	0	109	19	0	19	1	0	1	71	4	75	73	3	76
845-900	34	0	34	134	4	138	16	1	17	0	1	1	57	0	57	78	0	78
900-915	51	1	52	124	3	127	20	0	20	1	0	1	43	2	45	22	0	22
915-930	33	3	36	131	0	131	30	0	30	0	1	1	41	2	43	51	2	53
930-945	37	0	37	90	2	92	14	1	15	2	0	2	61	3	64	19	0	19
945-1000	32	3	35	65	2	67	22	0	22	3	0	3	47	2	49	17	0	17
HOUR TOTALS																		
700-800	131	5	136	436	0	436	96	2	98	7	0	7	225	14	239	135	3	138
715-815	133	4	137	525	2	527	106	2	108	4	0	4	268	11	279	150	3	153
730-830	143	4	147	542	2	544	104	1	105	4	1	5	272	11	283	148	2	150
745-845	141	2	143	495	2	497	92	1	93	5	1	6	273	12	285	164	3	167
800-900	148	1	149	489	6	495	95	2	97	3	2	5	265	6	271	211	3	214
815-915	172	2	174	475	7	482	81	1	82	4	2	6	235	7	242	204	3	207
830-930	161	4	165	498	7	505	85	1	86	2	2	4	212	8	220	224	5	229
845-945	155	4	159	479	9	488	80	2	82	3	2	5	202	7	209	170	2	172
900-1000	153	7	160	410	7	417	86	1	87	6	1	7	192	9	201	109	2	111

PEAK HOUR
715-815

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	24	0	24	109	0	109	14	1	15	12	1	13	118	1	119	56	0	56	478	9	487
715-730	20	0	20	140	1	141	21	0	21	27	0	27	162	0	162	99	1	100	717	6	723
730-745	35	0	35	163	0	163	33	0	33	54	0	54	187	2	189	79	0	79	910	9	919
745-800	22	0	22	160	1	161	53	0	53	67	0	67	145	0	145	99	1	100	824	9	833
800-815	21	0	21	168	2	170	42	0	42	41	1	42	148	3	151	95	0	95	816	10	826
815-830	13	0	13	121	0	121	31	0	31	17	0	17	92	2	94	82	0	82	631	5	636
830-845	29	2	31	142	0	142	50	0	50	43	1	44	92	3	95	79	0	79	751	13	764
845-900	27	2	29	143	1	144	84	0	84	41	0	41	96	2	98	82	0	82	792	11	803
900-915	17	0	17	104	2	106	35	0	35	38	0	38	73	1	74	59	2	61	587	11	598
915-930	17	0	17	139	0	139	56	1	57	55	0	55	70	0	70	83	1	84	706	10	716
930-945	18	0	18	123	0	123	54	0	54	32	0	32	64	1	65	62	2	64	576	9	585
945-1000	14	0	14	88	1	89	30	0	30	16	0	16	54	1	55	46	1	47	434	10	444
HOUR TOTALS																					
700-800	101	0	101	572	2	574	121	1	122	160	1	161	612	3	615	333	2	335	2929	33	2962
715-815	98	0	98	631	4	635	149	0	149	189	1	190	642	5	647	372	2	374	3267	34	3301
730-830	91	0	91	612	3	615	159	0	159	179	1	180	572	7	579	355	1	356	3181	33	3214
745-845	85	2	87	591	3	594	176	0	176	168	2	170	477	8	485	355	1	356	3022	37	3059
800-900	90	4	94	574	3	577	207	0	207	142	2	144	428	10	438	338	0	338	2990	39	3029
815-915	86	4	90	510	3	513	200	0	200	139	1	140	353	8	361	302	2	304	2761	40	2801
830-930	90	4	94	528	3	531	225	1	226	177	1	178	331	6	337	303	3	306	2836	45	2881
845-945	79	2	81	509	3	512	229	1	230	166	0	166	303	4	307	286	5	291	2661	41	2702
900-1000	66	0	66	454	3	457	175	1	176	141	0	141	261	3	264	250	6	256	2303	40	2343

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY SEPTEMBER 6, 2007
PERIOD:		3:00 PM TO 6:00 PM
INTERSECTION:	N/S	ROSE AVENUE
	E/W	CHANNEL ISLANDS BOULEVARD
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	68	1	69	132	0	132	28	0	28	3	0	3	145	0	145	48	0	48
315-330	66	1	67	137	2	139	40	0	40	1	0	1	139	0	139	46	0	46
330-345	65	1	66	165	0	165	51	0	51	1	0	1	143	1	144	45	0	45
345-400	85	0	85	168	0	168	42	0	42	7	1	8	147	1	148	57	0	57
400-415	74	0	74	138	0	138	35	1	36	4	0	4	180	1	181	42	0	42
415-430	76	0	76	173	1	174	45	0	45	2	0	2	180	0	180	42	0	42
430-445	83	0	83	170	0	170	37	0	37	3	0	3	158	2	160	39	0	39
445-500	86	1	87	206	0	206	45	0	45	1	0	1	203	1	204	56	0	56
500-515	76	0	76	231	0	231	43	1	44	5	0	5	175	1	176	74	0	74
515-530	78	0	78	218	1	219	36	0	36	1	0	1	201	1	202	79	0	79
530-545	94	0	94	239	1	240	69	1	70	1	0	1	179	1	180	66	1	67
545-600	66	0	66	212	0	212	32	0	32	1	0	1	199	0	199	62	0	62
HOUR TOTALS																		
300-400	284	3	287	602	2	604	161	0	161	12	1	13	574	2	576	196	0	196
315-415	290	2	292	608	2	610	168	1	169	13	1	14	609	3	612	190	0	190
330-430	300	1	301	644	1	645	173	1	174	14	1	15	650	3	653	186	0	186
345-445	318	0	318	649	1	650	159	1	160	16	1	17	665	4	669	180	0	180
400-500	319	1	320	687	1	688	162	1	163	10	0	10	721	4	725	179	0	179
415-515	321	1	322	780	1	781	170	1	171	11	0	11	716	4	720	211	0	211
430-530	323	1	324	825	1	826	161	1	162	10	0	10	737	5	742	248	0	248
445-545	334	1	335	894	2	896	193	2	195	8	0	8	758	4	762	275	1	276
500-600	314	0	314	900	2	902	180	2	182	8	0	8	754	3	757	281	1	282

PEAK HOUR
445-545

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	16	0	16	109	3	112	42	0	42	44	0	44	95	0	95	93	0	93	823	4	827
315-330	42	0	42	147	1	148	99	0	99	48	0	48	106	0	106	113	1	114	984	5	989
330-345	47	0	47	136	2	138	48	1	49	38	0	38	108	2	110	117	0	117	964	7	971
345-400	20	0	20	103	1	104	43	0	43	50	0	50	104	0	104	106	0	106	932	3	935
400-415	28	0	28	135	0	135	53	0	53	31	0	31	105	1	106	109	0	109	934	3	937
415-430	28	0	28	132	0	132	48	0	48	40	0	40	108	0	108	121	1	122	995	2	997
430-445	20	1	21	151	0	151	73	0	73	32	0	32	102	1	103	101	0	101	969	4	973
445-500	18	0	18	113	1	114	45	0	45	27	0	27	91	2	93	104	0	104	995	5	1000
500-515	25	0	25	136	0	136	71	0	71	64	0	64	91	1	92	117	0	117	1108	3	1111
515-530	24	0	24	149	0	149	74	0	74	45	0	45	108	1	109	123	0	123	1136	3	1139
530-545	32	0	32	135	0	135	72	0	72	50	0	50	96	0	96	116	0	116	1149	4	1153
545-600	28	0	28	97	0	97	36	0	36	43	0	43	99	0	99	119	0	119	994	0	994
HOUR TOTALS																					
300-400	125	0	125	495	7	502	232	1	233	180	0	180	413	2	415	429	1	430	3703	19	3722
315-415	137	0	137	521	4	525	243	1	244	167	0	167	423	3	426	445	1	446	3814	18	3832
330-430	123	0	123	506	3	509	192	1	193	159	0	159	425	3	428	453	1	454	3825	15	3840
345-445	96	1	97	521	1	522	217	0	217	153	0	153	419	2	421	437	1	438	3830	12	3842
400-500	94	1	95	531	1	532	219	0	219	130	0	130	406	4	410	435	1	436	3893	14	3907
415-515	91	1	92	532	1	533	237	0	237	163	0	163	392	4	396	443	1	444	4067	14	4081
430-530	87	1	88	549	1	550	263	0	263	168	0	168	392	5	397	445	0	445	4208	15	4223
445-545	99	0	99	533	1	534	262	0	262	186	0	186	386	4	390	460	0	460	4388	15	4403
500-600	109	0	109	517	0	517	253	0	253	202	0	202	394	2	396	475	0	475	4387	10	4397

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 6, 2007
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S SANTA CLARA AVENUE
E/W RICE AVENUE & AUTO CENTER DRIVE
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	12	1	13	71	11	82	16	3	19	6	0	6	22	2	24	107	5	112
715-730	18	1	19	66	11	77	15	4	19	3	1	4	45	4	49	191	8	199
730-745	25	0	25	96	9	105	33	0	33	2	0	2	25	3	28	145	5	150
745-800	16	2	18	64	8	72	18	1	19	4	1	5	48	3	51	227	5	232
800-815	14	1	15	75	13	88	10	5	15	8	0	8	43	0	43	165	5	170
815-830	19	1	20	78	16	94	25	4	29	7	4	11	48	3	51	200	14	214
830-845	18	1	19	67	8	75	15	3	18	3	0	3	23	0	23	126	5	131
845-900	13	0	13	73	12	85	18	5	23	6	2	8	38	0	38	157	3	160
900-915	11	0	11	67	10	77	21	9	30	5	5	10	31	4	35	101	3	104
915-930	16	0	16	43	14	57	14	6	20	4	3	7	32	2	34	127	8	135
930-945	10	1	11	55	11	66	11	8	19	6	4	10	55	4	59	115	10	125
945-1000	23	1	24	51	12	63	13	6	19	8	1	9	47	3	50	39	27	66
HOUR TOTALS																		
700-800	71	4	75	297	39	336	82	8	90	15	2	17	140	12	152	670	23	693
715-815	73	4	77	301	41	342	76	10	86	17	2	19	161	10	171	728	23	751
730-830	74	4	78	313	46	359	86	10	96	21	5	26	164	9	173	737	29	766
745-845	67	5	72	284	45	329	68	13	81	22	5	27	162	6	168	718	29	747
800-900	64	3	67	293	49	342	68	17	85	24	6	30	152	3	155	648	27	675
815-915	61	2	63	285	46	331	79	21	100	21	11	32	140	7	147	584	25	609
830-930	58	1	59	250	44	294	68	23	91	18	10	28	124	6	130	511	19	530
845-945	50	1	51	238	47	285	64	28	92	21	14	35	156	10	166	500	24	524
900-1000	60	2	62	216	47	263	59	29	88	23	13	36	165	13	178	382	48	430

PEAK HOUR
745-845

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	73	8	81	90	18	108	33	1	34	55	3	58	4	1	5	13	0	13	502	53	555
715-730	82	6	88	50	12	62	24	2	26	41	3	44	4	1	5	9	0	9	548	53	601
730-745	106	7	113	68	7	75	22	3	25	30	0	30	8	0	8	9	0	9	569	34	603
745-800	191	2	193	85	10	95	59	2	61	53	2	55	19	1	20	19	1	20	803	38	841
800-815	114	9	123	63	18	81	46	3	49	47	1	48	10	2	12	14	3	17	609	60	669
815-830	114	11	125	93	16	109	44	4	48	56	4	60	15	2	17	18	1	19	717	80	797
830-845	102	7	109	83	10	93	44	3	47	63	1	64	10	1	11	10	1	11	564	40	604
845-900	99	10	109	40	11	51	25	1	26	34	6	40	11	0	11	15	0	15	529	50	579
900-915	64	8	72	47	21	68	28	1	29	35	12	47	10	0	10	13	1	14	433	74	507
915-930	92	12	104	51	20	71	28	4	32	50	2	52	12	0	12	15	0	15	484	71	555
930-945	104	12	116	33	15	48	25	1	26	56	7	63	13	0	13	15	0	15	498	73	571
945-1000	74	14	88	48	11	59	33	2	35	62	3	65	8	1	9	14	2	16	420	83	503
HOUR TOTALS																					
700-800	452	23	475	293	47	340	138	8	146	179	8	187	35	3	38	50	1	51	2422	178	2600
715-815	493	24	517	266	47	313	151	10	161	171	6	177	41	4	45	51	4	55	2529	185	2714
730-830	525	29	554	309	51	360	171	12	183	186	7	193	52	5	57	60	5	65	2698	212	2910
745-845	521	29	550	324	54	378	193	12	205	219	8	227	54	6	60	61	6	67	2693	218	2911
800-900	429	37	466	279	55	334	159	11	170	200	12	212	46	5	51	57	5	62	2419	230	2649
815-915	379	36	415	263	58	321	141	9	150	188	23	211	46	3	49	56	3	59	2243	244	2487
830-930	357	37	394	221	62	283	125	9	134	182	21	203	43	1	44	53	2	55	2010	235	2245
845-945	359	42	401	171	67	238	106	7	113	175	27	202	46	0	46	58	1	59	1944	268	2212
900-1000	334	46	380	179	67	246	114	8	122	203	24	227	43	1	44	57	3	60	1835	301	2136

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 6, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S SANTA CLARA AVENUE
E/W RICE AVENUE & AUTO CENTER DRIVE
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	19	1	20	75	16	91	18	4	22	13	2	15	52	1	53	105	6	111
315-330	22	1	23	104	10	114	15	4	19	11	2	13	58	0	58	127	14	141
330-345	19	0	19	143	13	156	17	6	23	7	1	8	79	1	80	150	8	158
345-400	24	2	26	109	13	122	21	2	23	10	2	12	78	0	78	156	3	159
400-415	20	0	20	134	11	145	11	5	16	9	4	13	80	1	81	114	7	121
415-430	14	1	15	154	11	165	10	4	14	5	1	6	73	0	73	115	7	122
430-445	22	1	23	116	19	135	15	2	17	10	0	10	45	4	49	156	8	164
445-500	14	0	14	158	12	170	7	3	10	6	0	6	55	4	59	100	4	104
500-515	17	0	17	125	19	144	17	6	23	9	1	10	75	3	78	142	5	147
515-530	20	0	20	139	10	149	12	0	12	6	1	7	74	1	75	125	2	127
530-545	25	1	26	164	11	175	15	3	18	5	1	6	62	1	63	113	4	117
545-600	17	0	17	76	7	83	16	1	17	7	0	7	71	3	74	111	6	117
HOUR TOTALS																		
300-400	84	4	88	431	52	483	71	16	87	41	7	48	267	2	269	538	31	569
315-415	85	3	88	490	47	537	64	17	81	37	9	46	295	2	297	547	32	579
330-430	77	3	80	540	48	588	59	17	76	31	8	39	310	2	312	535	25	560
345-445	80	4	84	513	54	567	57	13	70	34	7	41	276	5	281	541	25	566
400-500	70	2	72	562	53	615	43	14	57	30	5	35	253	9	262	485	26	511
415-515	67	2	69	553	61	614	49	15	64	30	2	32	248	11	259	513	24	537
430-530	73	1	74	538	60	598	51	11	62	31	2	33	249	12	261	523	19	542
445-545	76	1	77	586	52	638	51	12	63	26	3	29	266	9	275	480	15	495
500-600	79	1	80	504	47	551	60	10	70	27	3	30	282	8	290	491	17	508

PEAK HOUR
430-530

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	176	17	193	95	13	108	78	3	81	104	2	106	32	1	33	34	0	34	801	66	867
315-330	160	21	181	96	14	110	71	6	77	82	2	84	9	0	9	24	0	24	779	74	853
330-345	323	27	350	108	21	129	89	0	89	113	3	116	24	1	25	41	2	43	1113	83	1196
345-400	208	16	224	73	19	92	69	1	70	104	4	108	18	0	18	27	0	27	897	62	959
400-415	207	8	215	103	13	116	85	4	89	106	5	111	10	0	10	29	1	30	908	59	967
415-430	227	13	240	102	11	113	80	2	82	156	4	160	20	1	21	38	1	39	994	56	1050
430-445	234	9	243	112	9	121	91	4	95	115	2	117	22	0	22	56	0	56	994	58	1052
445-500	193	16	209	98	7	105	69	5	74	103	5	108	14	0	14	23	1	24	840	57	897
500-515	249	13	262	125	14	139	102	2	104	135	3	138	19	1	20	54	1	55	1069	68	1137
515-530	285	7	292	122	8	130	126	1	127	132	3	135	24	1	25	50	0	50	1115	34	1149
530-545	185	8	193	109	7	116	100	2	102	140	3	143	20	1	21	45	3	48	983	45	1028
545-600	180	9	189	107	17	124	56	0	56	100	1	101	22	0	22	36	1	37	799	45	844
HOUR TOTALS																					
300-400	867	81	948	372	67	439	307	10	317	403	11	414	83	2	85	126	2	128	3590	285	3875
315-415	898	72	970	380	67	447	314	11	325	405	14	419	61	1	62	121	3	124	3697	278	3975
330-430	965	64	1029	386	64	450	323	7	330	479	16	495	72	2	74	135	4	139	3912	260	4172
345-445	876	46	922	390	52	442	325	11	336	481	15	496	70	1	71	150	2	152	3793	235	4028
400-500	861	46	907	415	40	455	325	15	340	480	16	496	66	1	67	146	3	149	3736	230	3966
415-515	903	51	954	437	41	478	342	13	355	509	14	523	75	2	77	171	3	174	3897	239	4136
430-530	961	45	1006	457	38	495	388	12	400	485	13	498	79	2	81	183	2	185	4018	217	4235
445-545	912	44	956	454	36	490	397	10	407	510	14	524	77	3	80	172	5	177	4007	204	4211
500-600	899	37	936	463	46	509	384	5	389	507	10	517	85	3	88	185	5	190	3966	192	4158

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 20, 2007
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S DUPONT AVENUE
E/W CHANNEL ISLANDS BOULEVARD
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	11	0	11	15	0	15	18	0	18	5	0	5	19	1	20	32	3	35
715-730	15	0	15	27	0	27	18	0	18	8	0	8	28	0	28	62	0	62
730-745	10	0	10	27	0	27	23	0	23	12	0	12	22	0	22	75	0	75
745-800	15	0	15	45	0	45	30	0	30	8	0	8	27	1	28	62	5	67
800-815	10	0	10	29	0	29	11	0	11	9	1	10	24	1	25	46	1	47
815-830	7	0	7	20	0	20	14	1	15	3	0	3	22	1	23	51	2	53
830-845	8	0	8	33	0	33	11	0	11	6	0	6	23	1	24	66	1	67
845-900	6	0	6	37	0	37	13	0	13	3	2	5	13	0	13	78	2	80
900-915	6	0	6	18	0	18	3	0	3	6	0	6	6	0	6	46	2	48
915-930	4	0	4	18	0	18	6	0	6	4	0	4	18	3	21	61	2	63
930-945	5	0	5	17	0	17	11	0	11	0	0	0	16	2	18	53	1	54
945-1000	4	1	5	21	0	21	7	0	7	6	0	6	17	0	17	46	3	49
HOUR TOTALS																		
700-800	51	0	51	114	0	114	89	0	89	33	0	33	96	2	98	231	8	239
715-815	50	0	50	128	0	128	82	0	82	37	1	38	101	2	103	245	6	251
730-830	42	0	42	121	0	121	78	1	79	32	1	33	95	3	98	234	8	242
745-845	40	0	40	127	0	127	66	1	67	26	1	27	96	4	100	225	9	234
800-900	31	0	31	119	0	119	49	1	50	21	3	24	82	3	85	241	6	247
815-915	27	0	27	108	0	108	41	1	42	18	2	20	64	2	66	241	7	248
830-930	24	0	24	106	0	106	33	0	33	19	2	21	60	4	64	251	7	258
845-945	21	0	21	90	0	90	33	0	33	13	2	15	53	5	58	238	7	245
900-1000	19	1	20	74	0	74	27	0	27	16	0	16	57	5	62	206	8	214

PEAK HOUR
715-815

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	78	0	78	5	0	5	0	0	0	12	0	12	5	0	5	4	0	4	204	4	208
715-730	92	2	94	9	1	10	1	0	1	3	0	3	1	0	1	1	1	2	265	4	269
730-745	109	1	110	16	0	16	0	0	0	3	0	3	6	0	6	2	0	2	305	1	306
745-800	79	1	80	12	0	12	1	0	1	12	0	12	14	0	14	6	0	6	311	7	318
800-815	90	1	91	11	1	12	0	0	0	10	0	10	3	0	3	2	0	2	245	5	250
815-830	72	7	79	7	1	8	0	0	0	10	0	10	3	0	3	0	0	0	209	12	221
830-845	42	1	43	10	0	10	0	0	0	3	2	5	5	0	5	5	0	5	212	5	217
845-900	62	4	66	23	0	23	0	0	0	19	0	19	0	0	0	0	0	0	254	8	262
900-915	40	2	42	11	1	12	0	0	0	15	1	16	2	0	2	1	0	1	154	6	160
915-930	44	0	44	11	0	11	0	0	0	7	1	8	0	0	0	0	0	0	173	6	179
930-945	41	1	42	15	0	15	0	0	0	3	1	4	0	0	0	0	0	0	161	5	166
945-1000	35	7	42	6	0	6	0	0	0	3	0	3	0	0	0	0	0	0	145	11	156
HOUR TOTALS																					
700-800	358	4	362	42	1	43	2	0	2	30	0	30	26	0	26	13	1	14	1085	16	1101
715-815	370	5	375	48	2	50	2	0	2	28	0	28	24	0	24	11	1	12	1126	17	1143
730-830	350	10	360	46	2	48	1	0	1	35	0	35	26	0	26	10	0	10	1070	25	1095
745-845	283	10	293	40	2	42	1	0	1	35	2	37	25	0	25	13	0	13	977	29	1006
800-900	266	13	279	51	2	53	0	0	0	42	2	44	11	0	11	7	0	7	920	30	950
815-915	216	14	230	51	2	53	0	0	0	47	3	50	10	0	10	6	0	6	829	31	860
830-930	188	7	195	55	1	56	0	0	0	44	4	48	7	0	7	6	0	6	793	25	818
845-945	187	7	194	60	1	61	0	0	0	44	3	47	2	0	2	1	0	1	742	25	767
900-1000	160	10	170	43	1	44	0	0	0	28	3	31	2	0	2	1	0	1	633	28	661

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY SEPTEMBER 20, 2007
PERIOD:		3:00 PM TO 6:00 PM
INTERSECTION:	N/S	DUPONT AVENUE
	E/W	CHANNEL ISLANDS BOULEVARD
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	12	0	12	33	0	33	11	0	11	15	0	15	19	0	19	112	0	112
315-330	11	0	11	28	0	28	6	0	6	13	0	13	29	0	29	107	2	109
330-345	5	0	5	30	0	30	11	0	11	24	0	24	24	0	24	139	0	139
345-400	10	0	10	20	0	20	16	0	16	22	0	22	29	1	30	125	0	125
400-415	6	0	6	30	0	30	8	0	8	20	0	20	24	1	25	122	2	124
415-430	11	0	11	43	0	43	10	0	10	28	0	28	26	0	26	155	1	156
430-445	5	0	5	40	0	40	13	0	13	36	0	36	41	0	41	121	1	122
445-500	16	0	16	41	0	41	16	0	16	42	0	42	40	0	40	171	1	172
500-515	10	1	11	42	0	42	11	0	11	42	0	42	61	0	61	184	1	185
515-530	7	0	7	43	0	43	14	0	14	37	0	37	39	0	39	172	1	173
530-545	10	0	10	29	0	29	15	0	15	28	0	28	33	0	33	153	1	154
545-600	8	0	8	32	0	32	11	0	11	24	0	24	40	0	40	165	0	165
HOUR TOTALS																		
300-400	38	0	38	111	0	111	44	0	44	74	0	74	101	1	102	483	2	485
315-415	32	0	32	108	0	108	41	0	41	79	0	79	106	2	108	493	4	497
330-430	32	0	32	123	0	123	45	0	45	94	0	94	103	2	105	541	3	544
345-445	32	0	32	133	0	133	47	0	47	106	0	106	120	2	122	523	4	527
400-500	38	0	38	154	0	154	47	0	47	126	0	126	131	1	132	569	5	574
415-515	42	1	43	166	0	166	50	0	50	148	0	148	168	0	168	631	4	635
430-530	38	1	39	166	0	166	54	0	54	157	0	157	181	0	181	648	4	652
445-545	43	1	44	155	0	155	56	0	56	149	0	149	173	0	173	680	4	684
500-600	35	1	36	146	0	146	51	0	51	131	0	131	173	0	173	674	3	677

PEAK HOUR
415-515

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	66	0	66	15	0	15	0	0	0	20	0	20	0	0	0	1	0	1	304	0	304
315-330	90	1	91	21	1	22	1	0	1	38	0	38	6	0	6	0	0	0	350	4	354
330-345	95	2	97	39	0	39	0	0	0	24	0	24	9	0	9	2	0	2	402	2	404
345-400	96	3	99	28	0	28	0	0	0	38	0	38	5	0	5	2	0	2	391	4	395
400-415	59	1	60	33	0	33	0	0	0	46	0	46	5	0	5	4	0	4	357	4	361
415-430	79	0	79	23	0	23	0	0	0	89	0	89	12	0	12	17	0	17	493	1	494
430-445	86	3	89	23	0	23	2	0	2	46	0	46	9	0	9	6	0	6	428	4	432
445-500	85	0	85	31	3	34	0	0	0	53	0	53	13	0	13	13	0	13	521	4	525
500-515	69	2	71	27	0	27	0	0	0	55	0	55	21	0	21	14	0	14	536	4	540
515-530	70	2	72	10	0	10	0	0	0	43	0	43	16	0	16	5	0	5	456	3	459
530-545	72	0	72	11	1	12	0	0	0	54	0	54	22	0	22	12	0	12	439	2	441
545-600	67	0	67	16	0	16	0	0	0	59	0	59	20	0	20	9	0	9	451	0	451
HOUR TOTALS																					
300-400	347	6	353	103	1	104	1	0	1	120	0	120	20	0	20	5	0	5	1447	10	1457
315-415	340	7	347	121	1	122	1	0	1	146	0	146	25	0	25	8	0	8	1500	14	1514
330-430	329	6	335	123	0	123	0	0	0	197	0	197	31	0	31	25	0	25	1643	11	1654
345-445	320	7	327	107	0	107	2	0	2	219	0	219	31	0	31	29	0	29	1669	13	1682
400-500	309	4	313	110	3	113	2	0	2	234	0	234	39	0	39	40	0	40	1799	13	1812
415-515	319	5	324	104	3	107	2	0	2	243	0	243	55	0	55	50	0	50	1978	13	1991
430-530	310	7	317	91	3	94	2	0	2	197	0	197	59	0	59	38	0	38	1941	15	1956
445-545	296	4	300	79	4	83	0	0	0	205	0	205	72	0	72	44	0	44	1952	13	1965
500-600	278	4	282	64	1	65	0	0	0	211	0	211	79	0	79	40	0	40	1882	9	1891

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY SEPTEMBER 6, 2007
PERIOD:		7:00 AM TO 10:00 AM
INTERSECTION:	N/S	RICE AVENUE
	E/W	GONZALES ROAD
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	69	0	69	265	20	285	0	0	0	0	0	0	0	0	0	0	0	0
715-730	84	1	85	333	18	351	0	0	0	0	0	0	0	0	0	0	0	0
730-745	102	3	105	321	16	337	0	0	0	0	0	0	0	0	0	0	0	0
745-800	163	2	165	292	14	306	0	0	0	0	0	0	0	0	0	0	0	0
800-815	196	1	197	304	34	338	0	0	0	0	0	0	0	0	0	0	0	0
815-830	161	2	163	252	18	270	0	0	0	0	0	0	0	0	0	0	0	0
830-845	141	2	143	181	26	207	0	0	0	0	0	0	0	0	0	0	0	0
845-900	133	2	135	163	12	175	0	0	0	0	0	0	0	0	0	0	0	0
900-915	74	3	77	182	22	204	0	0	0	0	0	0	0	0	0	0	0	0
915-930	52	3	55	109	15	124	0	0	0	0	0	0	0	0	0	0	0	0
930-945	37	9	46	137	31	168	0	0	0	0	0	0	0	0	0	0	0	0
945-1000	20	2	22	124	16	140	0	0	0	0	0	0	0	0	0	0	0	0
HOUR TOTALS																		
700-800	418	6	424	1211	68	1279	0	0	0	0	0	0	0	0	0	0	0	0
715-815	545	7	552	1250	82	1332	0	0	0	0	0	0	0	0	0	0	0	0
730-830	622	8	630	1169	82	1251	0	0	0	0	0	0	0	0	0	0	0	0
745-845	661	7	668	1029	92	1121	0	0	0	0	0	0	0	0	0	0	0	0
800-900	631	7	638	900	90	990	0	0	0	0	0	0	0	0	0	0	0	0
815-915	509	9	518	778	78	856	0	0	0	0	0	0	0	0	0	0	0	0
830-930	400	10	410	635	75	710	0	0	0	0	0	0	0	0	0	0	0	0
845-945	296	17	313	591	80	671	0	0	0	0	0	0	0	0	0	0	0	0
900-1000	183	17	200	552	84	636	0	0	0	0	0	0	0	0	0	0	0	0

PEAK HOUR
730-830

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	0	0	0	176	30	206	31	0	31	45	1	46	0	0	0	86	3	89	672	54	726
715-730	0	0	0	221	9	230	30	1	31	44	1	45	0	0	0	90	0	90	802	30	832
730-745	0	0	0	258	17	275	37	2	39	61	2	63	0	0	0	120	1	121	899	41	940
745-800	0	0	0	220	18	238	65	0	65	70	1	71	0	0	0	103	1	104	913	36	949
800-815	0	0	0	209	23	232	50	1	51	36	1	37	0	0	0	112	2	114	907	62	969
815-830	0	0	0	179	28	207	54	0	54	40	3	43	0	0	0	105	0	105	791	51	842
830-845	0	0	0	157	15	172	34	1	35	50	3	53	0	0	0	63	1	64	626	48	674
845-900	0	0	0	141	35	176	41	4	45	47	1	48	0	0	0	48	0	48	573	54	627
900-915	0	0	0	134	30	164	35	2	37	26	3	29	0	0	0	67	0	67	518	60	578
915-930	0	0	0	137	44	181	16	2	18	43	5	48	0	0	0	53	2	55	410	71	481
930-945	0	0	0	130	24	154	47	3	50	42	4	46	0	0	0	85	3	88	478	74	552
945-1000	0	0	0	135	31	166	40	1	41	36	0	36	0	0	0	82	1	83	437	51	488
HOUR TOTALS																					
700-800	0	0	0	875	74	949	163	3	166	220	5	225	0	0	0	399	5	404	3286	161	3447
715-815	0	0	0	908	67	975	182	4	186	211	5	216	0	0	0	425	4	429	3521	169	3690
730-830	0	0	0	866	86	952	206	3	209	207	7	214	0	0	0	440	4	444	3510	190	3700
745-845	0	0	0	765	84	849	203	2	205	196	8	204	0	0	0	383	4	387	3237	197	3434
800-900	0	0	0	686	101	787	179	6	185	173	8	181	0	0	0	328	3	331	2897	215	3112
815-915	0	0	0	611	108	719	164	7	171	163	10	173	0	0	0	283	1	284	2508	213	2721
830-930	0	0	0	569	124	693	126	9	135	166	12	178	0	0	0	231	3	234	2127	233	2360
845-945	0	0	0	542	133	675	139	11	150	158	13	171	0	0	0	253	5	258	1979	259	2238
900-1000	0	0	0	536	129	665	138	8	146	147	12	159	0	0	0	287	6	293	1843	256	2099

WILTEC
Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 6, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S RICE AVENUE
E/W GONZALES ROAD
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	102	0	102	201	30	231	0	0	0	0	0	0	0	0	0	0	0	0
315-330	115	0	115	269	29	298	0	0	0	0	0	0	0	0	0	0	0	0
330-345	131	0	131	282	19	301	0	0	0	0	0	0	0	0	0	0	0	0
345-400	130	0	130	272	17	289	0	0	0	0	0	0	0	0	0	0	0	0
400-415	123	2	125	310	26	336	0	0	0	0	0	0	0	0	0	0	0	0
415-430	106	1	107	238	12	250	0	0	0	0	0	0	0	0	0	0	0	0
430-445	105	0	105	287	23	310	0	0	0	0	0	0	0	0	0	0	0	0
445-500	100	1	101	281	23	304	0	0	0	0	0	0	0	0	0	0	0	0
500-515	114	1	115	361	20	381	0	0	0	0	0	0	0	0	0	0	0	0
515-530	104	0	104	311	21	332	0	0	0	0	0	0	0	0	0	0	0	0
530-545	96	0	96	310	16	326	0	0	0	0	0	0	0	0	0	0	0	0
545-600	73	0	73	236	25	261	0	0	0	0	0	0	0	0	0	0	0	0
HOUR TOTALS																		
300-400	478	0	478	1024	95	1119	0	0	0	0	0	0	0	0	0	0	0	0
315-415	499	2	501	1133	91	1224	0	0	0	0	0	0	0	0	0	0	0	0
330-430	490	3	493	1102	74	1176	0	0	0	0	0	0	0	0	0	0	0	0
345-445	464	3	467	1107	78	1185	0	0	0	0	0	0	0	0	0	0	0	0
400-500	434	4	438	1116	84	1200	0	0	0	0	0	0	0	0	0	0	0	0
415-515	425	3	428	1167	78	1245	0	0	0	0	0	0	0	0	0	0	0	0
430-530	423	2	425	1240	87	1327	0	0	0	0	0	0	0	0	0	0	0	0
445-545	414	2	416	1263	80	1343	0	0	0	0	0	0	0	0	0	0	0	0
500-600	387	1	388	1218	82	1300	0	0	0	0	0	0	0	0	0	0	0	0

PEAK HOUR
430-530

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	0	0	0	244	32	276	57	0	57	50	1	51	0	0	0	123	0	123	777	63	840
315-330	0	0	0	260	42	302	64	1	65	41	1	42	0	0	0	118	0	118	867	73	940
330-345	0	0	0	254	30	284	65	2	67	32	1	33	0	0	0	137	2	139	901	54	955
345-400	0	0	0	227	28	255	79	1	80	51	0	51	0	0	0	140	0	140	899	46	945
400-415	0	0	0	271	25	296	84	1	85	66	2	68	0	0	0	185	0	185	1039	56	1095
415-430	0	0	0	283	28	311	77	1	78	61	4	65	0	0	0	107	0	107	872	46	918
430-445	0	0	0	298	16	314	80	0	80	74	0	74	0	0	0	178	0	178	1022	39	1061
445-500	0	0	0	286	27	313	83	2	85	56	2	58	0	0	0	148	0	148	954	55	1009
500-515	0	0	0	251	14	265	86	1	87	87	2	89	0	0	0	203	0	203	1102	38	1140
515-530	0	0	0	202	11	213	92	0	92	53	1	54	0	0	0	163	0	163	925	33	958
530-545	0	0	0	217	15	232	91	1	92	58	0	58	0	0	0	196	0	196	968	32	1000
545-600	0	0	0	215	23	238	88	0	88	59	1	60	0	0	0	145	0	145	816	49	865
HOUR TOTALS																					
300-400	0	0	0	985	132	1117	265	4	269	174	3	177	0	0	0	518	2	520	3444	236	3680
315-415	0	0	0	1012	125	1137	292	5	297	190	4	194	0	0	0	580	2	582	3706	229	3935
330-430	0	0	0	1035	111	1146	305	5	310	210	7	217	0	0	0	569	2	571	3711	202	3913
345-445	0	0	0	1079	97	1176	320	3	323	252	6	258	0	0	0	610	0	610	3832	187	4019
400-500	0	0	0	1138	96	1234	324	4	328	257	8	265	0	0	0	618	0	618	3887	196	4083
415-515	0	0	0	1118	85	1203	326	4	330	278	8	286	0	0	0	636	0	636	3950	178	4128
430-530	0	0	0	1037	68	1105	341	3	344	270	5	275	0	0	0	692	0	692	4003	165	4168
445-545	0	0	0	956	67	1023	352	4	356	254	5	259	0	0	0	710	0	710	3949	158	4107
500-600	0	0	0	885	63	948	357	2	359	257	4	261	0	0	0	707	0	707	3811	152	3963

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY SEPTEMBER 6, 2007
PERIOD:		7:00 AM TO 10:00 AM
INTERSECTION:	N/S	ROSE AVENUE
	E/W	GONZALES ROAD
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	57	0	57	209	9	218	43	0	43	31	0	31	81	2	83	16	0	16
715-730	60	1	61	285	9	294	64	0	64	22	0	22	65	1	66	12	0	12
730-745	61	2	63	257	1	258	61	0	61	21	0	21	71	0	71	22	0	22
745-800	83	1	84	325	2	327	30	1	31	28	0	28	101	1	102	18	0	18
800-815	83	1	84	207	10	217	113	0	113	42	1	43	73	1	74	17	0	17
815-830	63	2	65	214	5	219	106	0	106	44	1	45	94	1	95	22	0	22
830-845	56	0	56	195	10	205	124	0	124	40	1	41	94	1	95	28	0	28
845-900	58	1	59	192	11	203	84	2	86	22	0	22	112	0	112	32	0	32
900-915	55	0	55	202	7	209	88	0	88	58	0	58	124	2	126	20	0	20
915-930	67	0	67	177	5	182	48	0	48	36	0	36	104	0	104	36	0	36
930-945	59	0	59	173	2	175	70	0	70	55	1	56	135	2	137	27	0	27
945-1000	65	2	67	199	7	206	80	0	80	37	1	38	94	1	95	31	0	31
HOUR TOTALS																		
700-800	261	4	265	1076	21	1097	198	1	199	102	0	102	318	4	322	68	0	68
715-815	287	5	292	1074	22	1096	268	1	269	113	1	114	310	3	313	69	0	69
730-830	290	6	296	1003	18	1021	310	1	311	135	2	137	339	3	342	79	0	79
745-845	285	4	289	941	27	968	373	1	374	154	3	157	362	4	366	85	0	85
800-900	260	4	264	808	36	844	427	2	429	148	3	151	373	3	376	99	0	99
815-915	232	3	235	803	33	836	402	2	404	164	2	166	424	4	428	102	0	102
830-930	236	1	237	766	33	799	344	2	346	156	1	157	434	3	437	116	0	116
845-945	239	1	240	744	25	769	290	2	292	171	1	172	475	4	479	115	0	115
900-1000	246	2	248	751	21	772	286	0	286	186	2	188	457	5	462	114	0	114

PEAK HOUR
730-830

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	18	1	19	226	8	234	47	0	47	36	0	36	104	1	105	131	0	131	999	21	1020
715-730	19	0	19	284	10	294	47	1	48	44	0	44	134	1	135	183	4	187	1219	27	1246
730-745	27	0	27	332	19	351	63	2	65	51	0	51	220	4	224	203	0	203	1389	28	1417
745-800	65	0	65	250	3	253	73	0	73	73	1	74	219	3	222	163	1	164	1428	13	1441
800-815	44	0	44	254	17	271	75	0	75	57	1	58	206	0	206	163	2	165	1334	33	1367
815-830	64	0	64	241	9	250	53	0	53	57	0	57	201	5	206	172	0	172	1331	23	1354
830-845	43	1	44	219	27	246	59	3	62	44	0	44	175	0	175	144	2	146	1221	45	1266
845-900	30	0	30	183	10	193	49	1	50	20	0	20	115	2	117	89	2	91	986	29	1015
900-915	41	0	41	197	17	214	81	0	81	29	0	29	104	4	108	118	3	121	1117	33	1150
915-930	49	0	49	195	17	212	29	0	29	28	1	29	108	4	112	104	3	107	981	30	1011
930-945	46	1	47	198	10	208	54	0	54	28	1	29	110	4	114	95	1	96	1050	22	1072
945-1000	47	1	48	160	12	172	63	0	63	20	1	21	113	3	116	104	3	107	1013	31	1044
HOUR TOTALS																					
700-800	129	1	130	1092	40	1132	230	3	233	204	1	205	677	9	686	680	5	685	5035	89	5124
715-815	155	0	155	1120	49	1169	258	3	261	225	2	227	779	8	787	712	7	719	5370	101	5471
730-830	200	0	200	1077	48	1125	264	2	266	238	2	240	846	12	858	701	3	704	5482	97	5579
745-845	216	1	217	964	56	1020	260	3	263	231	2	233	801	8	809	642	5	647	5314	114	5428
800-900	181	1	182	897	63	960	236	4	240	178	1	179	697	7	704	568	6	574	4872	130	5002
815-915	178	1	179	840	63	903	242	4	246	150	0	150	595	11	606	523	7	530	4655	130	4785
830-930	163	1	164	794	71	865	218	4	222	121	1	122	502	10	512	455	10	465	4305	137	4442
845-945	166	1	167	773	54	827	213	1	214	105	2	107	437	14	451	406	9	415	4134	114	4248
900-1000	183	2	185	750	56	806	227	0	227	105	3	108	435	15	450	421	10	431	4161	116	4277

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 6, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S ROSE AVENUE
E/W GONZALES ROAD
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	131	0	131	304	7	311	89	0	89	54	1	55	217	3	220	45	1	46
315-330	148	1	149	352	12	364	135	0	135	70	1	71	240	0	240	41	0	41
330-345	118	1	119	309	6	315	102	0	102	65	0	65	209	0	209	46	0	46
345-400	140	2	142	354	7	361	86	0	86	58	0	58	216	0	216	38	0	38
400-415	189	0	189	351	6	357	78	0	78	43	0	43	218	0	218	30	0	30
415-430	171	1	172	342	3	345	100	0	100	90	0	90	219	1	220	58	0	58
430-445	174	1	175	343	5	348	99	0	99	77	1	78	250	0	250	56	1	57
445-500	134	1	135	326	1	327	78	0	78	53	0	53	235	0	235	30	0	30
500-515	171	0	171	381	6	387	90	0	90	93	0	93	277	0	277	46	0	46
515-530	131	1	132	317	0	317	50	0	50	43	3	46	311	0	311	31	0	31
530-545	178	0	178	443	3	446	91	0	91	75	0	75	261	0	261	46	0	46
545-600	122	0	122	390	3	393	100	0	100	72	0	72	215	0	215	56	0	56
HOUR TOTALS																		
300-400	537	4	541	1319	32	1351	412	0	412	247	2	249	882	3	885	170	1	171
315-415	595	4	599	1366	31	1397	401	0	401	236	1	237	883	0	883	155	0	155
330-430	618	4	622	1356	22	1378	366	0	366	256	0	256	862	1	863	172	0	172
345-445	674	4	678	1390	21	1411	363	0	363	268	1	269	903	1	904	182	1	183
400-500	668	3	671	1362	15	1377	355	0	355	263	1	264	922	1	923	174	1	175
415-515	650	3	653	1392	15	1407	367	0	367	313	1	314	981	1	982	190	1	191
430-530	610	3	613	1367	12	1379	317	0	317	266	4	270	1073	0	1073	163	1	164
445-545	614	2	616	1467	10	1477	309	0	309	264	3	267	1084	0	1084	153	0	153
500-600	602	1	603	1531	12	1543	331	0	331	283	3	286	1064	0	1064	179	0	179

PEAK HOUR
445-545

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	31	2	33	258	16	274	94	0	94	35	0	35	125	0	125	121	3	124	1504	33	1537
315-330	43	0	43	247	11	258	113	1	114	63	1	64	146	1	147	133	4	137	1731	32	1763
330-345	47	0	47	281	11	292	119	0	119	97	1	98	200	2	202	170	0	170	1763	21	1784
345-400	58	1	59	239	9	248	79	0	79	55	0	55	152	1	153	136	1	137	1611	21	1632
400-415	38	0	38	317	8	325	86	0	86	56	1	57	176	0	176	163	2	165	1745	17	1762
415-430	39	0	39	276	7	283	99	1	100	33	1	34	137	3	140	109	0	109	1673	17	1690
430-445	29	0	29	256	10	266	80	0	80	28	0	28	104	0	104	107	1	108	1603	19	1622
445-500	27	0	27	312	14	326	96	0	96	43	1	44	154	2	156	110	0	110	1598	19	1617
500-515	18	1	19	251	4	255	101	0	101	48	0	48	145	0	145	143	2	145	1764	13	1777
515-530	35	0	35	316	8	324	110	0	110	43	0	43	145	1	146	165	0	165	1697	13	1710
530-545	21	0	21	275	10	285	89	0	89	62	0	62	136	1	137	170	0	170	1847	14	1861
545-600	22	-3	19	192	7	199	48	1	49	21	0	21	106	0	106	124	0	124	1468	8	1476
HOUR TOTALS																					
300-400	179	3	182	1025	47	1072	405	1	406	250	2	252	623	4	627	560	8	568	6609	107	6716
315-415	186	1	187	1084	39	1123	397	1	398	271	3	274	674	4	678	602	7	609	6850	91	6941
330-430	182	1	183	1113	35	1148	383	1	384	241	3	244	665	6	671	578	3	581	6792	76	6868
345-445	164	1	165	1088	34	1122	344	1	345	172	2	174	569	4	573	515	4	519	6632	74	6706
400-500	133	0	133	1161	39	1200	361	1	362	160	3	163	571	5	576	489	3	492	6619	72	6691
415-515	113	1	114	1095	35	1130	376	1	377	152	2	154	540	5	545	469	3	472	6638	68	6706
430-530	109	1	110	1135	36	1171	387	0	387	162	1	163	548	3	551	525	3	528	6662	64	6726
445-545	101	1	102	1154	36	1190	396	0	396	196	1	197	580	4	584	588	2	590	6906	59	6965
500-600	96	-2	94	1034	29	1063	348	1	349	174	0	174	532	2	534	602	2	604	6776	48	6824

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY SEPTEMBER 6, 2007
PERIOD:		7:00 AM TO 10:00 AM
INTERSECTION:	N/S	ROSE AVENUE
	E/W	AUTO CENTER DRIVE
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	2	0	2	154	0	154	28	0	28	12	0	12	0	0	0	30	0	30
715-730	2	0	2	154	3	157	28	0	28	14	0	14	1	1	2	34	0	34
730-745	4	0	4	193	4	197	25	0	25	25	0	25	1	0	1	38	2	40
745-800	1	0	1	201	3	204	55	0	55	25	0	25	6	1	7	28	3	31
800-815	4	0	4	194	7	201	37	0	37	22	0	22	7	0	7	43	4	47
815-830	14	0	14	184	4	188	24	1	25	17	3	20	8	0	8	46	0	46
830-845	6	0	6	172	7	179	47	0	47	22	2	24	5	0	5	48	5	53
845-900	8	0	8	154	5	159	29	0	29	26	1	27	7	0	7	71	7	78
900-915	4	0	4	112	7	119	14	2	16	17	3	20	5	0	5	52	9	61
915-930	1	1	2	72	5	77	24	0	24	14	0	14	5	1	6	60	6	66
930-945	1	0	1	85	7	92	28	4	32	28	0	28	5	0	5	109	9	118
945-1000	1	0	1	69	4	73	29	0	29	21	1	22	15	0	15	106	1	107
HOUR TOTALS																		
700-800	9	0	9	702	10	712	136	0	136	76	0	76	8	2	10	130	5	135
715-815	11	0	11	742	17	759	145	0	145	86	0	86	15	2	17	143	9	152
730-830	23	0	23	772	18	790	141	1	142	89	3	92	22	1	23	155	9	164
745-845	25	0	25	751	21	772	163	1	164	86	5	91	26	1	27	165	12	177
800-900	32	0	32	704	23	727	137	1	138	87	6	93	27	0	27	208	16	224
815-915	32	0	32	622	23	645	114	3	117	82	9	91	25	0	25	217	21	238
830-930	19	1	20	510	24	534	114	2	116	79	6	85	22	1	23	231	27	258
845-945	14	1	15	423	24	447	95	6	101	85	4	89	22	1	23	292	31	323
900-1000	7	1	8	338	23	361	95	6	101	80	4	84	30	1	31	327	25	352

PEAK HOUR
745-845

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	41	1	42	70	0	70	13	0	13	18	1	19	4	0	4	3	0	3	375	2	377
715-730	84	0	84	125	6	131	23	0	23	28	0	28	3	0	3	0	0	0	496	10	506
730-745	68	0	68	120	2	122	17	0	17	32	1	33	9	0	9	1	0	1	533	9	542
745-800	106	2	108	156	3	159	38	1	39	42	0	42	15	0	15	5	0	5	678	13	691
800-815	111	2	113	175	1	176	20	0	20	24	0	24	26	0	26	16	0	16	679	14	693
815-830	113	2	115	147	3	150	29	0	29	24	0	24	4	0	4	20	0	20	630	13	643
830-845	104	3	107	119	2	121	14	0	14	17	0	17	7	0	7	5	0	5	566	19	585
845-900	112	2	114	74	5	79	39	0	39	23	0	23	5	0	5	2	0	2	550	20	570
900-915	118	0	118	55	5	60	15	0	15	26	0	26	8	0	8	0	0	0	426	26	452
915-930	125	1	126	67	4	71	15	2	17	19	0	19	6	0	6	0	0	0	408	20	428
930-945	144	2	146	52	3	55	21	1	22	26	1	27	4	0	4	0	0	0	503	27	530
945-1000	141	3	144	83	3	86	21	1	22	19	0	19	8	0	8	1	0	1	514	13	527
HOUR TOTALS																					
700-800	299	3	302	471	11	482	91	1	92	120	2	122	31	0	31	9	0	9	2082	34	2116
715-815	369	4	373	576	12	588	98	1	99	126	1	127	53	0	53	22	0	22	2386	46	2432
730-830	398	6	404	598	9	607	104	1	105	122	1	123	54	0	54	42	0	42	2520	49	2569
745-845	434	9	443	597	9	606	101	1	102	107	0	107	52	0	52	46	0	46	2553	59	2612
800-900	440	9	449	515	11	526	102	0	102	88	0	88	42	0	42	43	0	43	2425	66	2491
815-915	447	7	454	395	15	410	97	0	97	90	0	90	24	0	24	27	0	27	2172	78	2250
830-930	459	6	465	315	16	331	83	2	85	85	0	85	26	0	26	7	0	7	1950	85	2035
845-945	499	5	504	248	17	265	90	3	93	94	1	95	23	0	23	2	0	2	1887	93	1980
900-1000	528	6	534	257	15	272	72	4	76	90	1	91	26	0	26	1	0	1	1851	86	1937

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 6, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S ROSE AVENUE
E/W AUTO CENTER DRIVE
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	3	1	4	134	5	139	40	2	42	38	0	38	21	0	21	237	4	241
315-330	9	1	10	177	10	187	40	0	40	42	1	43	18	0	18	139	1	140
330-345	3	0	3	140	4	144	40	0	40	44	1	45	20	0	20	229	4	233
345-400	7	0	7	147	9	156	42	0	42	36	1	37	17	1	18	188	3	191
400-415	2	0	2	156	5	161	55	1	56	55	0	55	10	0	10	227	1	228
415-430	3	0	3	176	2	178	43	2	45	40	0	40	10	1	11	193	0	193
430-445	1	0	1	143	1	144	34	0	34	66	0	66	21	0	21	215	1	216
445-500	6	0	6	138	4	142	54	0	54	41	0	41	12	0	12	219	0	219
500-515	3	0	3	187	2	189	39	0	39	62	1	63	21	0	21	289	3	292
515-530	2	0	2	131	5	136	48	0	48	43	0	43	17	0	17	197	2	199
530-545	0	0	0	169	2	171	42	0	42	56	0	56	18	0	18	210	0	210
545-600	4	0	4	171	6	177	27	0	27	60	1	61	14	0	14	213	1	214
HOUR TOTALS																		
300-400	22	2	24	598	28	626	162	2	164	160	3	163	76	1	77	793	12	805
315-415	21	1	22	620	28	648	177	1	178	177	3	180	65	1	66	783	9	792
330-430	15	0	15	619	20	639	180	3	183	175	2	177	57	2	59	837	8	845
345-445	13	0	13	622	17	639	174	3	177	197	1	198	58	2	60	823	5	828
400-500	12	0	12	613	12	625	186	3	189	202	0	202	53	1	54	854	2	856
415-515	13	0	13	644	9	653	170	2	172	209	1	210	64	1	65	916	4	920
430-530	12	0	12	599	12	611	175	0	175	212	1	213	71	0	71	920	6	926
445-545	11	0	11	625	13	638	183	0	183	202	1	203	68	0	68	915	5	920
500-600	9	0	9	658	15	673	156	0	156	221	2	223	70	0	70	909	6	915

PEAK HOUR
430-530

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	172	4	176	155	3	158	28	0	28	20	0	20	11	0	11	9	0	9	868	19	887
315-330	166	1	167	140	2	142	39	0	39	32	0	32	6	0	6	3	0	3	811	16	827
330-345	196	1	197	163	3	166	42	1	43	34	0	34	18	0	18	1	0	1	930	14	944
345-400	191	2	193	178	6	184	49	2	51	36	0	36	11	0	11	0	0	0	902	24	926
400-415	188	0	188	166	4	170	35	0	35	24	0	24	17	1	18	6	0	6	941	12	953
415-430	205	0	205	147	4	151	37	0	37	37	0	37	15	0	15	0	0	0	906	9	915
430-445	197	8	205	181	1	182	29	1	30	53	0	53	14	0	14	2	0	2	956	12	968
445-500	206	7	213	173	1	174	37	0	37	43	0	43	17	0	17	1	0	1	947	12	959
500-515	172	3	175	188	0	188	45	1	46	46	0	46	16	0	16	4	0	4	1072	10	1082
515-530	207	0	207	187	0	187	35	0	35	35	0	35	6	0	6	2	0	2	910	7	917
530-545	170	2	172	152	1	153	30	0	30	37	0	37	6	0	6	3	0	3	893	5	898
545-600	190	2	192	143	2	145	43	2	45	39	0	39	9	0	9	2	0	2	915	14	929
HOUR TOTALS																					
300-400	725	8	733	636	14	650	158	3	161	122	0	122	46	0	46	13	0	13	3511	73	3584
315-415	741	4	745	647	15	662	165	3	168	126	0	126	52	1	53	10	0	10	3584	66	3650
330-430	780	3	783	654	17	671	163	3	166	131	0	131	61	1	62	7	0	7	3679	59	3738
345-445	781	10	791	672	15	687	150	3	153	150	0	150	57	1	58	8	0	8	3705	57	3762
400-500	796	15	811	667	10	677	138	1	139	157	0	157	63	1	64	9	0	9	3750	45	3795
415-515	780	18	798	689	6	695	148	2	150	179	0	179	62	0	62	7	0	7	3881	43	3924
430-530	782	18	800	729	2	731	146	2	148	177	0	177	53	0	53	9	0	9	3885	41	3926
445-545	755	12	767	700	2	702	147	1	148	161	0	161	45	0	45	10	0	10	3822	34	3856
500-600	739	7	746	670	3	673	153	3	156	157	0	157	37	0	37	11	0	11	3790	36	3826

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		TUESDAY SEPTEMBER 25, 2007
PERIOD:		7:00 AM TO 10:00 AM
INTERSECTION:	N/S	OXNARD BOULEVARD
	E/W	PLEASANT VALLEY ROAD
CITY:		OXNARD

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	10	0	10	74	2	76	50	5	55	38	2	40	105	2	107	2	0	2
715-730	18	0	18	104	0	104	71	3	74	29	4	33	110	0	110	8	0	8
730-745	26	0	26	68	2	70	87	1	88	32	0	32	158	0	158	2	0	2
745-800	22	0	22	74	3	77	83	0	83	46	2	48	147	2	149	4	1	5
800-815	15	0	15	80	2	82	52	2	54	35	4	39	102	2	104	1	0	1
815-830	10	0	10	75	4	79	51	1	52	42	2	44	100	3	103	1	1	2
830-845	10	0	10	62	2	64	48	1	49	26	4	30	89	2	91	4	1	5
845-900	14	0	14	45	2	47	42	1	43	38	2	40	80	1	81	2	0	2
900-915	14	1	15	39	2	41	27	1	28	34	1	35	77	3	80	1	0	1
915-930	14	1	15	30	6	36	21	0	21	22	4	26	63	2	65	2	0	2
930-945	12	1	13	55	3	58	32	1	33	17	2	19	61	1	62	3	0	3
945-1000	13	1	14	42	4	46	22	3	25	25	6	31	47	0	47	3	1	4
HOUR TOTALS																		
700-800	76	0	76	320	7	327	291	9	300	145	8	153	520	4	524	16	1	17
715-815	81	0	81	326	7	333	293	6	299	142	10	152	517	4	521	15	1	16
730-830	73	0	73	297	11	308	273	4	277	155	8	163	507	7	514	8	2	10
745-845	57	0	57	291	11	302	234	4	238	149	12	161	438	9	447	10	3	13
800-900	49	0	49	262	10	272	193	5	198	141	12	153	371	8	379	8	2	10
815-915	48	1	49	221	10	231	168	4	172	140	9	149	346	9	355	8	2	10
830-930	52	2	54	176	12	188	138	3	141	120	11	131	309	8	317	9	1	10
845-945	54	3	57	169	13	182	122	3	125	111	9	120	281	7	288	8	0	8
900-1000	53	4	57	166	15	181	102	5	107	98	13	111	248	6	254	9	1	10

PEAK HOUR
715-815

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	14	0	14	0	0	0	36	0	36	28	0	28	202	1	203	10	0	10	569	12	581
715-730	21	0	21	0	0	0	37	2	39	48	0	48	284	1	285	18	0	18	748	10	758
730-745	23	1	24	0	0	0	48	1	49	33	0	33	276	0	276	24	0	24	777	5	782
745-800	23	0	23	0	0	0	45	0	45	27	0	27	267	2	269	42	0	42	780	10	790
800-815	12	0	12	1	0	1	31	0	31	20	0	20	225	0	225	20	0	20	594	10	604
815-830	19	1	20	0	0	0	20	1	21	25	0	25	145	0	145	14	0	14	502	13	515
830-845	15	0	15	2	0	2	24	1	25	30	0	30	130	2	132	19	0	19	459	13	472
845-900	12	1	13	0	0	0	24	0	24	20	0	20	143	2	145	19	0	19	439	9	448
900-915	7	1	8	2	0	2	27	0	27	11	0	11	66	1	67	10	1	11	315	11	326
915-930	11	0	11	0	0	0	23	3	26	16	0	16	92	1	93	9	0	9	303	17	320
930-945	15	1	16	0	0	0	22	1	23	10	0	10	81	2	83	9	0	9	317	12	329
945-1000	8	0	8	2	0	2	30	0	30	14	0	14	90	2	92	6	0	6	302	17	319
HOUR TOTALS																					
700-800	81	1	82	0	0	0	166	3	169	136	0	136	1029	4	1033	94	0	94	2874	37	2911
715-815	79	1	80	1	0	1	161	3	164	128	0	128	1052	3	1055	104	0	104	2899	35	2934
730-830	77	2	79	1	0	1	144	2	146	105	0	105	913	2	915	100	0	100	2653	38	2691
745-845	69	1	70	3	0	3	120	2	122	102	0	102	767	4	771	95	0	95	2335	46	2381
800-900	58	2	60	3	0	3	99	2	101	95	0	95	643	4	647	72	0	72	1994	45	2039
815-915	53	3	56	4	0	4	95	2	97	86	0	86	484	5	489	62	1	63	1715	46	1761
830-930	45	2	47	4	0	4	98	4	102	77	0	77	431	6	437	57	1	58	1516	50	1566
845-945	45	3	48	2	0	2	96	4	100	57	0	57	382	6	388	47	1	48	1374	49	1423
900-1000	41	2	43	4	0	4	102	4	106	51	0	51	329	6	335	34	1	35	1237	57	1294

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 25, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S OXNARD BOULEVARD
E/W PLEASANT VALLEY ROAD
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	17	0	17	33	3	36	21	2	23	71	4	75	121	1	122	3	1	4
315-330	25	0	25	34	5	39	31	3	34	93	2	95	154	0	154	3	0	3
330-345	16	0	16	64	0	64	63	1	64	78	2	80	157	1	158	1	1	2
345-400	31	0	31	50	1	51	44	2	46	130	6	136	200	1	201	1	0	1
400-415	28	0	28	38	4	42	34	1	35	140	6	146	237	0	237	11	1	12
415-430	32	0	32	38	5	43	37	2	39	150	2	152	214	1	215	6	0	6
430-445	36	1	37	35	1	36	33	2	35	174	3	177	206	2	208	2	0	2
445-500	30	0	30	28	4	32	35	0	35	161	6	167	247	0	247	3	1	4
500-515	24	0	24	39	2	41	47	1	48	182	3	185	298	0	298	1	0	1
515-530	24	0	24	41	1	42	41	1	42	193	1	194	304	0	304	2	0	2
530-545	32	0	32	32	1	33	34	2	36	149	2	151	227	0	227	4	0	4
545-600	34	0	34	47	4	51	33	2	35	144	0	144	227	0	227	3	0	3
HOUR TOTALS																		
300-400	89	0	89	181	9	190	159	8	167	372	14	386	632	3	635	8	2	10
315-415	100	0	100	186	10	196	172	7	179	441	16	457	748	2	750	16	2	18
330-430	107	0	107	190	10	200	178	6	184	498	16	514	808	3	811	19	2	21
345-445	127	1	128	161	11	172	148	7	155	594	17	611	857	4	861	20	1	21
400-500	126	1	127	139	14	153	139	5	144	625	17	642	904	3	907	22	2	24
415-515	122	1	123	140	12	152	152	5	157	667	14	681	965	3	968	12	1	13
430-530	114	1	115	143	8	151	156	4	160	710	13	723	1055	2	1057	8	1	9
445-545	110	0	110	140	8	148	157	4	161	685	12	697	1076	0	1076	10	1	11
500-600	114	0	114	159	8	167	155	6	161	668	6	674	1056	0	1056	10	0	10

PEAK HOUR
445-545

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	30	2	32	3	0	3	64	0	64	13	135	148	135	1	136	10	0	10	521	149	670
315-330	17	0	17	0	0	0	67	0	67	17	143	160	143	1	144	29	0	29	613	154	767
330-345	12	2	14	1	0	1	64	0	64	20	165	185	165	4	169	10	0	10	651	176	827
345-400	28	1	29	1	0	1	86	1	87	27	131	158	131	1	132	17	0	17	746	144	890
400-415	20	3	23	1	0	1	83	0	83	13	123	136	123	1	124	15	0	15	743	139	882
415-430	23	2	25	2	0	2	98	0	98	13	184	197	184	0	184	19	0	19	816	196	1012
430-445	20	0	20	2	0	2	83	0	83	10	125	135	125	1	126	10	0	10	736	135	871
445-500	22	1	23	1	0	1	100	0	100	17	136	153	136	2	138	15	0	15	795	150	945
500-515	15	1	16	0	0	0	113	0	113	11	128	139	128	0	128	24	0	24	882	135	1017
515-530	10	0	10	1	0	1	98	1	99	6	126	132	126	0	126	14	0	14	860	130	990
530-545	20	0	20	3	0	3	127	0	127	13	124	137	124	0	124	15	0	15	780	129	909
545-600	24	1	25	1	0	1	120	0	120	16	116	132	116	0	116	19	0	19	784	123	907
HOUR TOTALS																					
300-400	87	5	92	5	0	5	281	1	282	77	574	651	574	7	581	66	0	66	2531	623	3154
315-415	77	6	83	3	0	3	300	1	301	77	562	639	562	7	569	71	0	71	2753	613	3366
330-430	83	8	91	5	0	5	331	1	332	73	603	676	603	6	609	61	0	61	2956	655	3611
345-445	91	6	97	6	0	6	350	1	351	63	563	626	563	3	566	61	0	61	3041	614	3655
400-500	85	6	91	6	0	6	364	0	364	53	568	621	568	4	572	59	0	59	3090	620	3710
415-515	80	4	84	5	0	5	394	0	394	51	573	624	573	3	576	68	0	68	3229	616	3845
430-530	67	2	69	4	0	4	394	1	395	44	515	559	515	3	518	63	0	63	3273	550	3823
445-545	67	2	69	5	0	5	438	1	439	47	514	561	514	2	516	68	0	68	3317	544	3861
500-600	69	2	71	5	0	5	458	1	459	46	494	540	494	0	494	72	0	72	3306	517	3823

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		WEDNESDAY SEPTEMBER 19, 2007
PERIOD:		7:00 AM TO 10:00 AM
INTERSECTION:	N/S	ROSE AVENUE
	E/W	5TH STREET
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	34	9	43	239	9	248	4	2	6	10	0	10	32	5	37	26	2	28
715-730	20	2	22	225	6	231	12	0	12	6	0	6	34	4	38	17	1	18
730-745	36	3	39	324	6	330	9	0	9	3	0	3	49	4	53	25	5	30
745-800	26	6	32	366	8	374	9	0	9	13	0	13	70	2	72	37	2	39
800-815	33	6	39	220	9	229	12	0	12	5	0	5	66	6	72	23	5	28
815-830	33	5	38	220	11	231	11	0	11	5	0	5	55	7	62	30	6	36
830-845	42	4	46	214	15	229	5	1	6	4	1	5	40	7	47	20	6	26
845-900	33	4	37	191	6	197	13	0	13	11	2	13	59	9	68	20	0	20
900-915	33	3	36	188	11	199	6	3	9	8	1	9	50	8	58	12	4	16
915-930	35	6	41	197	8	205	14	0	14	2	0	2	37	6	43	20	4	24
930-945	53	2	55	168	5	173	8	2	10	3	0	3	47	10	57	20	4	24
945-1000	44	4	48	162	9	171	2	1	3	7	2	9	34	4	38	21	1	22
HOUR TOTALS																		
700-800	116	20	136	1154	29	1183	34	2	36	32	0	32	185	15	200	105	10	115
715-815	115	17	132	1135	29	1164	42	0	42	27	0	27	219	16	235	102	13	115
730-830	128	20	148	1130	34	1164	41	0	41	26	0	26	240	19	259	115	18	133
745-845	134	21	155	1020	43	1063	37	1	38	27	1	28	231	22	253	110	19	129
800-900	141	19	160	845	41	886	41	1	42	25	3	28	220	29	249	93	17	110
815-915	141	16	157	813	43	856	35	4	39	28	4	32	204	31	235	82	16	98
830-930	143	17	160	790	40	830	38	4	42	25	4	29	186	30	216	72	14	86
845-945	154	15	169	744	30	774	41	5	46	24	3	27	193	33	226	72	12	84
900-1000	165	15	180	715	33	748	30	6	36	20	3	23	168	28	196	73	13	86

PEAK HOUR
730-830

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	14	2	16	201	3	204	0	0	0	4	1	5	65	4	69	30	6	36	659	43	702
715-730	22	3	25	278	9	287	1	1	2	7	3	10	92	7	99	46	9	55	760	45	805
730-745	26	1	27	284	6	290	5	0	5	6	0	6	129	15	144	43	8	51	939	48	987
745-800	18	4	22	298	4	302	1	0	1	9	1	10	104	1	105	40	6	46	991	34	1025
800-815	18	1	19	276	13	289	4	2	6	7	0	7	90	5	95	49	8	57	803	55	858
815-830	24	5	29	283	11	294	5	0	5	8	0	8	85	11	96	67	10	77	826	66	892
830-845	6	4	10	251	6	257	0	0	0	5	1	6	55	12	67	32	5	37	674	62	736
845-900	13	5	18	229	8	237	3	0	3	6	1	7	33	8	41	48	11	59	659	54	713
900-915	9	4	13	212	18	230	2	0	2	5	0	5	34	8	42	52	13	65	611	73	684
915-930	14	0	14	146	9	155	5	1	6	7	3	10	39	13	52	49	8	57	565	58	623
930-945	11	1	12	175	3	178	4	1	5	6	3	9	48	17	65	43	10	53	586	58	644
945-1000	9	0	9	179	7	186	1	0	1	4	1	5	35	5	40	44	12	56	542	46	588
HOUR TOTALS																					
700-800	80	10	90	1061	22	1083	7	1	8	26	5	31	390	27	417	159	29	188	3349	170	3519
715-815	84	9	93	1136	32	1168	11	3	14	29	4	33	415	28	443	178	31	209	3493	182	3675
730-830	86	11	97	1141	34	1175	15	2	17	30	1	31	408	32	440	199	32	231	3559	203	3762
745-845	66	14	80	1108	34	1142	10	2	12	29	2	31	334	29	363	188	29	217	3294	217	3511
800-900	61	15	76	1039	38	1077	12	2	14	26	2	28	263	36	299	196	34	230	2962	237	3199
815-915	52	18	70	975	43	1018	10	0	10	24	2	26	207	39	246	199	39	238	2770	255	3025
830-930	42	13	55	838	41	879	10	1	11	23	5	28	161	41	202	181	37	218	2509	247	2756
845-945	47	10	57	762	38	800	14	2	16	24	7	31	154	46	200	192	42	234	2421	243	2664
900-1000	43	5	48	712	37	749	12	2	14	22	7	29	156	43	199	188	43	231	2304	235	2539

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 25, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S ROSE AVENUE
E/W 5TH STREET
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	57	9	66	271	14	285	3	2	5	26	0	26	80	9	89	42	2	44
315-330	34	8	42	261	6	267	0	0	0	31	0	31	100	10	110	38	3	41
330-345	51	3	54	359	7	366	0	0	0	33	0	33	108	8	116	52	2	54
345-400	52	7	59	325	8	333	16	3	19	30	1	31	125	10	135	65	2	67
400-415	42	1	43	347	7	354	20	0	20	21	2	23	116	5	121	33	3	36
415-430	42	4	46	257	7	264	11	0	11	15	0	15	100	9	109	28	1	29
430-445	49	4	53	320	6	326	6	1	7	13	0	13	143	6	149	82	3	85
445-500	44	3	47	257	4	261	10	0	10	16	0	16	127	5	132	24	3	27
500-515	70	0	70	366	4	370	5	0	5	20	0	20	157	6	163	50	6	56
515-530	35	3	38	303	6	309	9	0	9	19	1	20	120	3	123	47	1	48
530-545	48	0	48	342	4	346	4	0	4	15	0	15	133	9	142	53	2	55
545-600	39	4	43	300	4	304	5	0	5	10	1	11	95	4	99	33	0	33
HOUR TOTALS																		
300-400	194	27	221	1216	35	1251	19	5	24	120	1	121	413	37	450	197	9	206
315-415	179	19	198	1292	28	1320	36	3	39	115	3	118	449	33	482	188	10	198
330-430	187	15	202	1288	29	1317	47	3	50	99	3	102	449	32	481	178	8	186
345-445	185	16	201	1249	28	1277	53	4	57	79	3	82	484	30	514	208	9	217
400-500	177	12	189	1181	24	1205	47	1	48	65	2	67	486	25	511	167	10	177
415-515	205	11	216	1200	21	1221	32	1	33	64	0	64	527	26	553	184	13	197
430-530	198	10	208	1246	20	1266	30	1	31	68	1	69	547	20	567	203	13	216
445-545	197	6	203	1268	18	1286	28	0	28	70	1	71	537	23	560	174	12	186
500-600	192	7	199	1311	18	1329	23	0	23	64	2	66	505	22	527	183	9	192

PEAK HOUR
430-530

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	16	1	17	274	13	287	4	0	4	14	2	16	85	11	96	61	6	67	933	69	1002
315-330	20	2	22	252	8	260	1	0	1	10	0	10	61	12	73	71	11	82	879	60	939
330-345	16	0	16	358	7	365	8	1	9	15	2	17	72	7	79	69	4	73	1141	41	1182
345-400	8	1	9	277	7	284	6	0	6	10	0	10	55	7	62	57	3	60	1026	49	1075
400-415	16	0	16	262	7	269	8	0	8	25	2	27	72	3	75	95	7	102	1057	37	1094
415-430	12	1	13	284	2	286	3	0	3	10	0	10	45	5	50	88	1	89	895	30	925
430-445	12	1	13	324	5	329	5	1	6	8	0	8	76	8	84	93	5	98	1131	40	1171
445-500	12	0	12	265	5	270	6	0	6	13	0	13	70	7	77	78	5	83	922	32	954
500-515	16	0	16	302	4	306	2	0	2	10	1	11	57	4	61	74	1	75	1129	26	1155
515-530	10	1	11	311	5	316	6	0	6	8	0	8	92	4	96	76	0	76	1036	24	1060
530-545	9	0	9	295	1	296	7	0	7	8	0	8	51	5	56	77	1	78	1042	22	1064
545-600	6	0	6	249	5	254	2	0	2	5	0	5	82	2	84	72	1	73	898	21	919
HOUR TOTALS																					
300-400	60	4	64	1161	35	1196	19	1	20	49	4	53	273	37	310	258	24	282	3979	219	4198
315-415	60	3	63	1149	29	1178	23	1	24	60	4	64	260	29	289	292	25	317	4103	187	4290
330-430	52	2	54	1181	23	1204	25	1	26	60	4	64	244	22	266	309	15	324	4119	157	4276
345-445	48	3	51	1147	21	1168	22	1	23	53	2	55	248	23	271	333	16	349	4109	156	4265
400-500	52	2	54	1135	19	1154	22	1	23	56	2	58	263	23	286	354	18	372	4005	139	4144
415-515	52	2	54	1175	16	1191	16	1	17	41	1	42	248	24	272	333	12	345	4077	128	4205
430-530	50	2	52	1202	19	1221	19	1	20	39	1	40	295	23	318	321	11	332	4218	122	4340
445-545	47	1	48	1173	15	1188	21	0	21	39	1	40	270	20	290	305	7	312	4129	104	4233
500-600	41	1	42	1157	15	1172	17	0	17	31	1	32	282	15	297	299	3	302	4105	93	4198

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 25, 2007
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S ROSE AVENUE
E/W OXNARD BOULEVARD
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	2	0	2	74	2	76	9	0	9	7	0	7	28	0	28	0	0	0
715-730	4	0	4	99	0	99	7	0	7	17	0	17	66	0	66	0	0	0
730-745	9	0	9	151	3	154	15	0	15	20	0	20	56	0	56	0	0	0
745-800	7	0	7	155	0	155	2	0	2	28	0	28	68	0	68	0	0	0
800-815	9	0	9	135	0	135	12	0	12	13	1	14	58	0	58	1	0	1
815-830	3	0	3	155	0	155	5	1	6	11	1	12	68	0	68	0	0	0
830-845	6	0	6	125	0	125	6	0	6	13	0	13	61	0	61	0	0	0
845-900	5	1	6	110	4	114	3	0	3	10	0	10	51	0	51	0	0	0
900-915	3	0	3	124	3	127	2	0	2	0	0	0	46	0	46	0	0	0
915-930	4	1	5	149	3	152	8	0	8	15	0	15	27	0	27	0	0	0
930-945	3	0	3	109	3	112	4	2	6	6	0	6	41	0	41	0	0	0
945-1000	10	0	10	92	3	95	2	0	2	11	0	11	42	0	42	0	0	0
HOUR TOTALS																		
700-800	22	0	22	479	5	484	33	0	33	72	0	72	218	0	218	0	0	0
715-815	29	0	29	540	3	543	36	0	36	78	1	79	248	0	248	1	0	1
730-830	28	0	28	596	3	599	34	1	35	72	2	74	250	0	250	1	0	1
745-845	25	0	25	570	0	570	25	1	26	65	2	67	255	0	255	1	0	1
800-900	23	1	24	525	4	529	26	1	27	47	2	49	238	0	238	1	0	1
815-915	17	1	18	514	7	521	16	1	17	34	1	35	226	0	226	0	0	0
830-930	18	2	20	508	10	518	19	0	19	38	0	38	185	0	185	0	0	0
845-945	15	2	17	492	13	505	17	2	19	31	0	31	165	0	165	0	0	0
900-1000	20	1	21	474	12	486	16	2	18	32	0	32	156	0	156	0	0	0

PEAK HOUR
730-830

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	4	0	4	122	0	122	24	0	24	16	0	16	63	4	67	0	0	0	349	6	355
715-730	15	0	15	173	1	174	28	0	28	32	0	32	61	3	64	0	0	0	502	4	506
730-745	9	0	9	176	0	176	37	0	37	47	1	48	96	1	97	0	0	0	616	5	621
745-800	7	0	7	239	2	241	32	0	32	64	0	64	80	3	83	0	0	0	682	5	687
800-815	6	0	6	186	1	187	36	1	37	39	2	41	70	0	70	0	0	0	565	5	570
815-830	11	0	11	166	1	167	44	0	44	50	1	51	56	1	57	0	0	0	569	5	574
830-845	6	0	6	152	1	153	38	0	38	37	0	37	44	3	47	1	0	1	489	4	493
845-900	7	0	7	186	1	187	48	0	48	55	0	55	36	3	39	0	0	0	511	9	520
900-915	7	0	7	141	2	143	28	0	28	55	0	55	40	2	42	0	0	0	446	7	453
915-930	3	0	3	145	2	147	30	1	31	55	0	55	28	5	33	0	0	0	464	12	476
930-945	6	0	6	140	1	141	37	1	38	37	1	38	38	4	42	0	0	0	421	12	433
945-1000	4	0	4	128	2	130	27	0	27	23	2	25	34	5	39	0	0	0	373	12	385
HOUR TOTALS																					
700-800	35	0	35	710	3	713	121	0	121	159	1	160	300	11	311	0	0	0	2149	20	2169
715-815	37	0	37	774	4	778	133	1	134	182	3	185	307	7	314	0	0	0	2365	19	2384
730-830	33	0	33	767	4	771	149	1	150	200	4	204	302	5	307	0	0	0	2432	20	2452
745-845	30	0	30	743	5	748	150	1	151	190	3	193	250	7	257	1	0	1	2305	19	2324
800-900	30	0	30	690	4	694	166	1	167	181	3	184	206	7	213	1	0	1	2134	23	2157
815-915	31	0	31	645	5	650	158	0	158	197	1	198	176	9	185	1	0	1	2015	25	2040
830-930	23	0	23	624	6	630	144	1	145	202	0	202	148	13	161	1	0	1	1910	32	1942
845-945	23	0	23	612	6	618	143	2	145	202	1	203	142	14	156	0	0	0	1842	40	1882
900-1000	20	0	20	554	7	561	122	2	124	170	3	173	140	16	156	0	0	0	1704	43	1747

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 25, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S ROSE AVENUE
E/W OXNARD BOULEVARD
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	10	0	10	179	0	179	10	0	10	7	0	7	62	2	64	0	0	0
315-330	23	3	26	175	3	178	9	1	10	18	1	19	96	2	98	0	0	0
330-345	13	1	14	225	0	225	9	0	9	19	1	20	102	1	103	0	0	0
345-400	10	0	10	200	0	200	15	0	15	14	0	14	121	2	123	0	0	0
400-415	11	0	11	215	1	216	15	0	15	15	0	15	115	6	121	0	0	0
415-430	9	0	9	215	1	216	11	0	11	20	0	20	128	2	130	0	0	0
430-445	6	0	6	204	0	204	15	2	17	22	0	22	159	3	162	0	0	0
445-500	16	0	16	253	1	254	15	1	16	16	0	16	192	4	196	0	0	0
500-515	7	1	8	243	2	245	15	0	15	28	1	29	175	1	176	0	0	0
515-530	16	1	17	280	1	281	9	0	9	16	0	16	198	1	199	0	0	0
530-545	7	0	7	245	0	245	17	1	18	23	0	23	156	2	158	0	0	0
545-600	7	0	7	246	0	246	6	0	6	13	0	13	132	1	133	0	0	0
HOUR TOTALS																		
300-400	56	4	60	779	3	782	43	1	44	58	2	60	381	7	388	0	0	0
315-415	57	4	61	815	4	819	48	1	49	66	2	68	434	11	445	0	0	0
330-430	43	1	44	855	2	857	50	0	50	68	1	69	466	11	477	0	0	0
345-445	36	0	36	834	2	836	56	2	58	71	0	71	523	13	536	0	0	0
400-500	42	0	42	887	3	890	56	3	59	73	0	73	594	15	609	0	0	0
415-515	38	1	39	915	4	919	56	3	59	86	1	87	654	10	664	0	0	0
430-530	45	2	47	980	4	984	54	3	57	82	1	83	724	9	733	0	0	0
445-545	46	2	48	1021	4	1025	56	2	58	83	1	84	721	8	729	0	0	0
500-600	37	2	39	1014	3	1017	47	1	48	80	1	81	661	5	666	0	0	0

PEAK HOUR
445-545

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	9	0	9	146	2	148	24	0	24	53	0	53	49	5	54	0	0	0	549	9	558
315-330	6	1	7	178	1	179	30	0	30	40	1	41	33	3	36	0	0	0	608	16	624
330-345	10	0	10	170	1	171	43	1	44	56	0	56	47	0	47	0	0	0	694	5	699
345-400	11	0	11	196	2	198	40	0	40	52	0	52	47	2	49	0	0	0	706	6	712
400-415	7	0	7	204	2	206	41	0	41	57	1	58	68	6	74	0	0	0	748	16	764
415-430	5	0	5	154	0	154	40	0	40	46	0	46	35	1	36	0	0	0	663	4	667
430-445	4	0	4	170	0	170	29	0	29	71	0	71	42	0	42	0	0	0	722	5	727
445-500	6	0	6	199	1	200	31	0	31	77	0	77	38	3	41	0	0	0	843	10	853
500-515	6	0	6	170	0	170	39	0	39	79	0	79	66	0	66	0	0	0	828	5	833
515-530	4	0	4	203	0	203	45	0	45	79	0	79	44	1	45	0	0	0	894	4	898
530-545	7	0	7	179	0	179	34	0	34	86	1	87	45	4	49	0	0	0	799	8	807
545-600	8	0	8	199	0	199	51	0	51	86	0	86	50	3	53	0	0	0	798	4	802
HOUR TOTALS																					
300-400	36	1	37	690	6	696	137	1	138	201	1	202	176	10	186	0	0	0	2557	36	2593
315-415	34	1	35	748	6	754	154	1	155	205	2	207	195	11	206	0	0	0	2756	43	2799
330-430	33	0	33	724	5	729	164	1	165	211	1	212	197	9	206	0	0	0	2811	31	2842
345-445	27	0	27	724	4	728	150	0	150	226	1	227	192	9	201	0	0	0	2839	31	2870
400-500	22	0	22	727	3	730	141	0	141	251	1	252	183	10	193	0	0	0	2976	35	3011
415-515	21	0	21	693	1	694	139	0	139	273	0	273	181	4	185	0	0	0	3056	24	3080
430-530	20	0	20	742	1	743	144	0	144	306	0	306	190	4	194	0	0	0	3287	24	3311
445-545	23	0	23	751	1	752	149	0	149	321	1	322	193	8	201	0	0	0	3364	27	3391
500-600	25	0	25	751	0	751	169	0	169	330	1	331	205	8	213	0	0	0	3319	21	3340

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 5, 2007
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S ROSE AVENUE
E/W WOOLEY ROAD
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	71	18	89	160	15	175	1	0	1	3	0	3	31	2	33	14	0	14
715-730	67	1	68	209	2	211	4	3	7	3	0	3	41	1	42	17	1	18
730-745	87	5	92	279	3	282	4	0	4	7	1	8	27	6	33	11	1	12
745-800	136	5	141	297	4	301	8	0	8	2	0	2	27	3	30	13	0	13
800-815	75	15	90	203	4	207	3	0	3	4	2	6	30	5	35	18	1	19
815-830	57	10	67	184	6	190	4	2	6	2	1	3	22	4	26	10	0	10
830-845	56	9	65	167	8	175	4	0	4	7	0	7	35	7	42	15	2	17
845-900	27	7	34	156	10	166	0	0	0	3	0	3	14	2	16	8	1	9
900-915	20	4	24	126	3	129	0	0	0	2	0	2	16	10	26	5	2	7
915-930	39	7	46	169	4	173	2	0	2	0	0	0	19	1	20	6	6	12
930-945	43	5	48	118	7	125	3	1	4	0	0	0	19	7	26	11	1	12
945-1000	48	1	49	142	4	146	1	0	1	7	1	8	38	5	43	8	0	8
HOUR TOTALS																		
700-800	361	29	390	945	24	969	17	3	20	15	1	16	126	12	138	55	2	57
715-815	365	26	391	988	13	1001	19	3	22	16	3	19	125	15	140	59	3	62
730-830	355	35	390	963	17	980	19	2	21	15	4	19	106	18	124	52	2	54
745-845	324	39	363	851	22	873	19	2	21	15	3	18	114	19	133	56	3	59
800-900	215	41	256	710	28	738	11	2	13	16	3	19	101	18	119	51	4	55
815-915	160	30	190	633	27	660	8	2	10	14	1	15	87	23	110	38	5	43
830-930	142	27	169	618	25	643	6	0	6	12	0	12	84	20	104	34	11	45
845-945	129	23	152	569	24	593	5	1	6	5	0	5	68	20	88	30	10	40
900-1000	150	17	167	555	18	573	6	1	7	9	1	10	92	23	115	30	9	39

PEAK HOUR
715-815

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	28	0	28	220	4	224	5	0	5	17	0	17	70	2	72	14	3	17	634	44	678
715-730	22	1	23	217	6	223	3	0	3	14	1	15	71	5	76	29	2	31	697	23	720
730-745	32	1	33	272	1	273	7	0	7	7	0	7	78	3	81	46	4	50	857	25	882
745-800	28	1	29	286	4	290	17	0	17	5	0	5	66	5	71	70	6	76	955	28	983
800-815	17	1	18	249	3	252	5	0	5	7	0	7	62	7	69	77	3	80	750	41	791
815-830	18	0	18	214	4	218	6	0	6	7	0	7	67	4	71	44	11	55	635	42	677
830-845	18	2	20	178	6	184	6	0	6	14	0	14	56	5	61	56	5	61	612	44	656
845-900	18	2	20	188	9	197	7	1	8	9	0	9	60	7	67	54	4	58	544	43	587
900-915	13	1	14	139	2	141	3	0	3	5	1	6	32	8	40	80	7	87	441	38	479
915-930	14	1	15	179	10	189	6	0	6	6	1	7	31	8	39	20	5	25	491	43	534
930-945	5	0	5	172	1	173	9	0	9	3	2	5	38	5	43	25	3	28	446	32	478
945-1000	11	0	11	130	2	132	2	0	2	6	0	6	32	9	41	36	6	42	461	28	489
HOUR TOTALS																					
700-800	110	3	113	995	15	1010	32	0	32	43	1	44	285	15	300	159	15	174	3143	120	3263
715-815	99	4	103	1024	14	1038	32	0	32	33	1	34	277	20	297	222	15	237	3259	117	3376
730-830	95	3	98	1021	12	1033	35	0	35	26	0	26	273	19	292	237	24	261	3197	136	3333
745-845	81	4	85	927	17	944	34	0	34	33	0	33	251	21	272	247	25	272	2952	155	3107
800-900	71	5	76	829	22	851	24	1	25	37	0	37	245	23	268	231	23	254	2541	170	2711
815-915	67	5	72	719	21	740	22	1	23	35	1	36	215	24	239	234	27	261	2232	167	2399
830-930	63	6	69	684	27	711	22	1	23	34	2	36	179	28	207	210	21	231	2088	168	2256
845-945	50	4	54	678	22	700	25	1	26	23	4	27	161	28	189	179	19	198	1922	156	2078
900-1000	43	2	45	620	15	635	20	0	20	20	4	24	133	30	163	161	21	182	1839	141	1980

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 19, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S ROSE AVENUE
E/W WOOLEY ROAD
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	72	8	80	209	7	216	5	0	5	4	0	4	55	6	61	16	0	16
315-330	83	5	88	237	5	242	1	2	3	5	0	5	41	8	49	20	1	21
330-345	99	6	105	311	4	315	4	0	4	5	1	6	69	4	73	26	2	28
345-400	85	1	86	295	4	299	0	0	0	2	0	2	66	8	74	18	0	18
400-415	97	3	100	280	6	286	1	2	3	9	1	10	78	5	83	19	0	19
415-430	103	5	108	286	2	288	3	2	5	0	1	1	60	1	61	29	1	30
430-445	102	3	105	286	2	288	4	0	4	9	0	9	76	5	81	31	0	31
445-500	102	1	103	286	7	293	0	0	0	6	0	6	80	2	82	22	0	22
500-515	102	3	105	327	3	330	2	0	2	7	0	7	87	8	95	28	1	29
515-530	95	5	100	343	2	345	3	0	3	5	0	5	91	5	96	31	0	31
530-545	100	0	100	307	32	339	4	0	4	3	0	3	61	4	65	24	0	24
545-600	85	0	85	333	19	352	2	0	2	3	1	4	77	1	78	24	0	24
HOUR TOTALS																		
300-400	339	20	359	1052	20	1072	10	2	12	16	1	17	231	26	257	80	3	83
315-415	364	15	379	1123	19	1142	6	4	10	21	2	23	254	25	279	83	3	86
330-430	384	15	399	1172	16	1188	8	4	12	16	3	19	273	18	291	92	3	95
345-445	387	12	399	1147	14	1161	8	4	12	20	2	22	280	19	299	97	1	98
400-500	404	12	416	1138	17	1155	8	4	12	24	2	26	294	13	307	101	1	102
415-515	409	12	421	1185	14	1199	9	2	11	22	1	23	303	16	319	110	2	112
430-530	401	12	413	1242	14	1256	9	0	9	27	0	27	334	20	354	112	1	113
445-545	399	9	408	1263	44	1307	9	0	9	21	0	21	319	19	338	105	1	106
500-600	382	8	390	1310	56	1366	11	0	11	18	1	19	316	18	334	107	1	108

PEAK HOUR
430-530
3756

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COUNTS	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	21	0	21	198	2	200	8	0	8	7	0	7	42	3	45	50	8	58	687	34	721
315-330	19	0	19	220	2	222	11	0	11	12	0	12	58	3	61	80	6	86	787	32	819
330-345	23	0	23	235	2	237	10	0	10	5	0	5	40	5	45	62	2	64	889	26	915
345-400	13	0	13	248	3	251	8	0	8	12	1	13	50	5	55	66	4	70	863	26	889
400-415	15	0	15	263	0	263	10	0	10	10	0	10	47	6	53	68	3	71	897	26	923
415-430	25	0	25	221	4	225	15	0	15	8	0	8	44	4	48	75	4	79	869	24	893
430-445	22	0	22	203	3	206	7	0	7	11	0	11	53	2	55	75	5	80	879	20	899
445-500	15	0	15	208	3	211	9	0	9	14	0	14	43	0	43	61	1	62	846	14	860
500-515	18	1	19	230	1	231	10	0	10	16	0	16	61	5	66	119	4	123	1007	26	1033
515-530	21	0	21	196	5	201	7	0	7	18	0	18	44	2	46	63	2	65	917	21	938
530-545	16	0	16	200	1	201	7	0	7	9	0	9	51	2	53	74	1	75	856	40	896
545-600	12	2	14	220	0	220	15	0	15	6	0	6	37	1	38	49	2	51	863	26	889
HOUR TOTALS																					
300-400	76	0	76	901	9	910	37	0	37	36	1	37	190	16	206	258	20	278	3226	118	3344
315-415	70	0	70	966	7	973	39	0	39	39	1	40	195	19	214	276	15	291	3436	110	3546
330-430	76	0	76	967	9	976	43	0	43	35	1	36	181	20	201	271	13	284	3518	102	3620
345-445	75	0	75	935	10	945	40	0	40	41	1	42	194	17	211	284	16	300	3508	96	3604
400-500	77	0	77	895	10	905	41	0	41	43	0	43	187	12	199	279	13	292	3491	84	3575
415-515	80	1	81	862	11	873	41	0	41	49	0	49	201	11	212	330	14	344	3601	84	3685
430-530	76	1	77	837	12	849	33	0	33	59	0	59	201	9	210	318	12	330	3649	81	3730
445-545	70	1	71	834	10	844	33	0	33	57	0	57	199	9	208	317	8	325	3626	101	3727
500-600	67	3	70	846	7	853	39	0	39	49	0	49	193	10	203	305	9	314	3643	113	3756

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

5-LEG INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		TRAFFIC COUNTS
DATE:		WEDNESDAY SEPTEMBER 19, 2007
PERIOD:		7:00 A.M. TO 10:00 A.M.
INTERSECTION:	N/S	OXNARD BOULEARD/SAVIERS ROAD
	E/W	WOOLEY ROAD
		OXNARD

15 MIN COUNTS

	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
700-715	11	52	42	6	11	53	0	24	4	44	45	1	15	25	121	34	4	37	118	20	667
715-730	10	97	42	6	3	30	0	20	5	40	38	4	14	19	121	23	4	39	111	19	645
730-745	12	140	73	8	3	38	0	29	0	40	47	2	42	19	121	46	6	63	135	16	840
745-800	8	148	93	19	7	31	0	27	6	55	55	1	58	10	155	38	6	42	143	22	924
800-815	12	97	73	10	4	43	0	20	1	33	56	4	38	6	125	22	8	49	106	25	732
815-830	13	80	61	16	8	38	2	19	4	34	51	6	18	15	100	35	4	35	69	20	628
830-845	10	81	35	11	8	54	2	20	6	64	62	5	6	11	100	33	6	26	67	13	620
845-900	12	108	51	11	5	40	2	10	6	29	34	4	9	14	107	36	11	34	81	17	621
900-915	15	84	56	7	9	55	2	10	2	29	52	8	11	11	105	51	6	43	51	15	622
915-930	13	99	82	11	5	45	1	10	4	27	30	2	6	13	96	40	9	35	62	17	607
930-945	10	85	46	13	6	52	3	13	4	36	40	4	2	7	95	23	9	24	64	13	549
945-1000	18	97	51	11	9	50	1	15	3	35	33	9	12	8	108	27	10	20	47	18	582

HOUR TOTALS

	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
700-800	41	437	250	39	24	152	0	100	15	179	185	8	129	73	518	141	20	181	507	77	3076
715-815	42	482	281	43	17	142	0	96	12	168	196	11	152	54	522	129	24	193	495	82	3141
730-830	45	465	300	53	22	150	2	95	11	162	209	13	156	50	501	141	24	189	453	83	3124
745-845	43	406	262	56	27	166	4	86	17	186	224	16	120	42	480	128	24	152	385	80	2904
800-900	47	366	220	48	25	175	6	69	17	160	203	19	71	46	432	126	29	144	323	75	2601
815-915	50	353	203	45	30	187	8	59	18	156	199	23	44	51	412	155	27	138	268	65	2491
830-930	50	372	224	40	27	194	7	50	18	149	178	19	32	49	408	160	32	138	261	62	2470
845-945	50	376	235	42	25	192	8	43	16	121	156	18	28	45	403	150	35	136	258	62	2399
900-1000	56	365	235	42	29	202	7	48	13	127	155	23	31	39	404	141	34	122	224	63	2360

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

5-LEG INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		TRAFFIC COUNTS
DATE:		WEDNESDAY SEPTEMBER 19, 2007
PERIOD:		3:00 PM TO 6:00 PM
INTERSECTION:	N/S	OXNARD BOULEARD/SAVIERS ROAD
	E/W	WOOLEY ROAD
CITY:		OXNARD

15 MIN COUNTS

	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
300-315	18	157	72	21	13	82	7	36	1	55	64	5	19	11	150	40	18	28	56	30	883
315-330	16	170	86	11	8	113	1	35	6	53	64	10	21	12	158	54	20	38	62	25	963
330-345	15	210	73	18	7	89	2	38	6	60	87	19	15	4	122	34	10	25	51	23	908
345-400	16	202	73	18	8	84	0	27	5	67	70	12	23	8	116	29	17	43	78	15	911
400-415	15	218	98	10	12	105	0	47	4	51	78	10	18	9	124	36	13	28	47	10	933
415-430	20	189	85	6	14	126	0	56	2	68	97	18	32	6	155	41	10	33	71	15	1044
430-445	18	190	81	6	8	124	1	50	3	65	94	10	38	14	156	45	20	39	83	19	1064
445-500	19	234	106	10	17	113	0	53	2	64	92	14	23	5	130	31	14	39	63	18	1047
500-515	16	197	87	7	10	123	0	62	4	90	124	30	20	10	126	35	13	48	47	28	1077
515-530	23	231	97	17	6	100	0	43	1	56	100	17	24	5	125	30	11	43	49	20	998
530-545	18	218	68	12	13	101	0	47	5	68	120	19	14	8	151	30	19	42	51	27	1031
545-600	21	199	83	7	10	121	0	37	6	76	95	14	17	6	129	42	25	45	71	21	1025

HOUR TOTALS

	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
300-400	65	739	304	68	36	368	10	136	18	235	285	46	78	35	546	157	65	134	247	93	3665
315-415	62	800	330	57	35	391	3	147	21	231	299	51	77	33	520	153	60	134	238	73	3715
330-430	66	819	329	52	41	404	2	168	17	246	332	59	88	27	517	140	50	129	247	63	3796
345-445	69	799	337	40	42	439	1	180	14	251	339	50	111	37	551	151	60	143	279	59	3952
400-500	72	831	370	32	51	468	1	206	11	248	361	52	111	34	565	153	57	139	264	62	4088
415-515	73	810	359	29	49	486	1	221	11	287	407	72	113	35	567	152	57	159	264	80	4232
430-530	76	852	371	40	41	460	1	208	10	275	410	71	105	34	537	141	58	169	242	85	4186
445-545	76	880	358	46	46	437	0	205	12	278	436	80	81	28	532	126	57	172	210	93	4153
500-600	78	845	335	43	39	445	0	189	16	290	439	80	75	29	531	137	68	178	218	96	4131

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

5-LEG INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 19, 2007
PERIOD: 7:00 A.M. TO 10:00 A.M.
INTERSECTION: N/S OXNARD BOULEARD/SAVIERS ROAD
E/W WOOLEY ROAD
OXNARD

TRUCKS

15 MIN COUNTS

	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
700-715	0	2	2	0	1	7	0	2	0	1	0	0	0	0	1	0	0	0	0	0	16
715-730	0	1	1	0	0	4	0	1	0	0	0	0	0	0	1	0	0	0	1	0	9
730-745	0	2	2	0	0	4	0	1	0	0	0	0	0	0	1	0	0	1	0	0	11
745-800	0	1	1	1	0	4	0	1	1	0	1	0	0	0	0	0	0	0	2	0	12
800-815	1	5	0	0	0	4	0	3	0	0	1	0	0	0	5	0	0	0	1	1	21
815-830	1	2	2	2	0	1	0	0	0	2	1	0	0	1	0	0	0	1	5	0	18
830-845	1	2	1	2	1	7	0	0	0	0	1	0	0	1	1	0	0	0	2	0	19
845-900	1	0	0	0	0	4	0	0	0	0	0	1	0	3	3	0	0	2	4	1	19
900-915	4	1	4	0	2	6	2	1	0	0	0	0	0	1	3	1	0	3	1	0	29
915-930	2	3	1	0	2	5	0	0	0	1	2	0	0	1	1	0	0	0	8	0	26
930-945	0	1	3	0	3	11	0	4	0	0	1	0	0	0	3	0	0	0	1	0	27
945-1000	1	1	0	0	1	3	0	1	0	1	1	0	0	1	3	0	0	1	3	0	17

HOUR TOTALS

	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
700-800	0	6	6	1	1	19	0	5	1	1	1	0	0	0	3	0	0	1	3	0	48
715-815	1	9	4	1	0	16	0	6	1	0	2	0	0	0	7	0	0	1	4	1	53
730-830	2	10	5	3	0	13	0	5	1	2	3	0	0	1	6	0	0	2	8	1	62
745-845	3	10	4	5	1	16	0	4	1	2	4	0	0	2	6	0	0	1	10	1	70
800-900	4	9	3	4	1	16	0	3	0	2	3	1	0	5	9	0	0	3	12	2	77
815-915	7	5	7	4	3	18	2	1	0	2	2	1	0	6	7	1	0	6	12	1	85
830-930	8	6	6	2	5	22	2	1	0	1	3	1	0	6	8	1	0	5	15	1	93
845-945	7	5	8	0	7	26	2	5	0	1	3	1	0	5	10	1	0	5	14	1	101
900-1000	7	6	8	0	8	25	2	6	0	2	4	0	0	3	10	1	0	4	13	0	99

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

5-LEG INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 19, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S OXNARD BOULEARD/SAVIERS ROAD
E/W WOOLEY ROAD
OXNARD

TRUCKS

15 MIN COUNTS

	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
300-315	0	1	0	0	1	3	1	0	0	0	0	0	0	1	0	1	0	4	1	0	13
315-330	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2	0	10
330-345	0	1	1	1	0	1	0	0	1	1	4	0	0	0	0	0	0	0	1	1	12
345-400	0	3	1	0	1	2	0	0	1	1	2	0	0	1	1	0	0	1	1	0	15
400-415	0	0	3	0	1	1	0	0	0	0	0	0	0	0	0	0	1	2	2	0	10
415-430	0	2	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	4	0	12
430-445	0	3	3	0	2	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	11
445-500	0	0	2	0	0	3	0	0	0	1	0	0	0	0	0	0	0	1	3	0	10
500-515	0	2	1	0	3	0	0	0	0	1	1	0	0	0	1	0	0	1	2	0	12
515-530	0	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	2	0	11
530-545	0	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	0	6
545-600	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	4

HOUR TOTALS

	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
300-400	0	5	6	1	2	6	1	0	2	3	6	0	1	2	1	2	0	6	5	1	50
315-415	0	4	9	1	2	4	0	0	2	3	6	0	1	1	1	1	1	4	6	1	47
330-430	0	6	6	1	2	5	0	2	2	2	8	0	0	1	1	0	1	3	8	1	49
345-445	0	8	8	0	4	5	0	3	1	1	4	0	0	1	1	1	1	3	7	0	48
400-500	0	5	9	0	3	6	0	3	0	1	2	0	0	0	0	1	1	3	9	0	43
415-515	0	7	7	0	5	5	0	3	0	2	3	0	0	0	1	1	0	2	9	0	45
430-530	0	7	8	0	5	8	0	1	0	2	1	0	0	0	1	1	1	2	7	0	44
445-545	0	6	5	0	3	7	0	0	0	2	1	0	1	0	2	0	1	3	8	0	39
500-600	0	6	3	0	4	4	0	0	0	1	2	1	1	0	2	0	1	2	5	1	33

TRAFFIC DATA SERVICES, INC
SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : OXNARD BLVD
E/W ST: US-101 NB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 1071702A
DATE: 11/01/07
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	2	2			4	1				1	0	1	
7:00 AM	136	26			23	72				18	0	47	322
15 AM	124	23			36	63				21	0	33	300
30 AM	139	24			43	123				30	0	47	406
45 AM	203	34			33	164				33	1	24	492
8:00 AM	147	34			23	84				26	0	42	356
15 AM	143	31			29	79				42	0	36	360
30 AM	115	30			22	75				21	0	21	284
45 AM	127	22			32	75				38	0	22	316

PEAK HOUR BEGINS AT: PHF: 0.82
730 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	632	123	0	0	128	450	0	0	0	131	1	149	1614

FILENAME: 1071702Q
DATE: 11/01/07
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	161	26			38	65				85	0	41	416
15 PM	166	21			19	51				91	0	55	403
30 PM	171	29			56	73				68	0	40	437
45 PM	169	20			58	74				83	0	43	447
5:00 PM	187	22			70	71				95	0	44	489
15 PM	187	26			80	60				98	0	46	497
30 PM	176	23			51	67				97	0	62	476
45 PM	174	31			40	66				70	0	49	430

PEAK HOUR BEGINS AT: PHF: 0.96
1645 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	719	91	0	0	259	272	0	0	0	373	0	195	1909

COMMENTS:

TRAFFIC DATA SERVICES, INC

SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : OXNARD BLVD
E/W ST: VINEYARD AVE
CITY: OXNARD

FILENAME: 1071704
DATE: 10/31/07
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	2	2	2	2	2.5	0.5	1.5	2.5	1	3	1.5	0.5	
7:00 AM	17	142	163	20	89	20	50	193	13	114	91	6	918
15 AM	20	108	178	21	123	17	58	308	25	126	94	3	1081
30 AM	30	143	165	23	140	30	70	299	48	154	118	2	1222
45 AM	17	159	190	29	185	22	66	223	64	149	108	5	1217
8:00 AM	16	150	247	25	144	29	65	332	38	165	121	7	1339
15 AM	18	130	147	20	88	13	51	147	26	120	74	4	838
30 AM	12	92	153	21	117	28	78	192	25	106	94	2	920
45 AM	16	130	194	32	157	28	58	145	29	159	99	5	1052

PEAK HOUR BEGINS AT: 715 AM — PHF: 0.91

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	83	560	780	98	592	98	259	1162	175	594	441	17	4859

FILENAME: 1071704P
DATE: 10/31/07
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	41	133	231	47	246	26	43	199	33	185	198	6	1388
15 PM	46	155	241	49	195	46	77	172	21	205	204	4	1415
30 PM	61	142	172	53	236	52	86	185	23	247	273	4	1534
45 PM	59	151	168	32	172	25	40	141	37	237	281	3	1346
5:00 PM	60	166	180	53	222	42	48	152	35	229	282	1	1470
15 PM	83	194	208	57	204	33	53	162	36	236	241	10	1517
30 PM	79	187	202	37	230	59	48	135	30	231	256	6	1500
45 PM	73	147	189	34	163	43	84	146	39	205	254	3	1380

PEAK HOUR BEGINS AT: 1700 PM — PHF: 0.96

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	295	694	779	181	819	177	233	595	140	901	1033	20	5867

COMMENTS:

TRAFFIC DATA SERVICES, INC

SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : OXNARD BLVD
E/W ST: US-101 SB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 1071703A
DATE: 11/01/07
DAY: THURSDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
LANES:		4	1	2	2		2	0	1				
7:00 AM		145	17	17	25		17	0	94				315
15 AM		140	33	29	31		11	0	132				376
30 AM		149	33	32	42		14	0	135				405
45 AM		229	37	28	41		16	1	156				508
8:00 AM		167	35	20	25		14	0	143				404
15 AM		156	24	23	46		18	0	119				386
30 AM		127	23	22	24		18	0	142				356
45 AM		137	26	17	54		12	0	139				385

PEAK HOUR BEGINS AT: 730 AM — PHF: 0.84

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	0	701	129	103	154	0	62	1	553	0	0	0	1703

FILENAME: 1071703P
DATE: 11/01/07
DAY: THURSDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
4:00 PM		183	55	19	104		4	0	267				632
15 PM		149	38	24	86		3	0	273				573
30 PM		183	65	25	98		17	0	299				687
45 PM		174	46	33	92		15	0	242				602
5:00 PM		199	46	29	100		10	0	157				541
15 PM		200	39	22	108		13	0	205				587
30 PM		178	42	39	109		21	0	228				617
45 PM		186	39	32	78		17	0	231				583

PEAK HOUR BEGINS AT: 1600 PM — PHF: 0.91

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	0	689	204	101	380	0	39	0	1081	0	0	0	2494

COMMENTS:

TRAFFIC DATA SERVICES, INC

SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : OXNARD BLVD
E/W ST: GONZALES RD
CITY: OXNARD

FILENAME: 1071705
DATE: 10/31/07
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	2	3	1	2	3	1	2	2	1	2	3	1	
7:00 AM	18	174	57	33	170	4	41	153	11	45	84	62	852
15 AM	33	245	82	35	172	12	52	201	15	64	206	86	1203
30 AM	23	189	65	75	254	19	63	263	24	55	196	85	1311
45 AM	24	190	112	92	278	14	64	226	10	76	157	90	1333
8:00 AM	21	178	115	76	194	11	46	232	9	54	171	94	1201
15 AM	25	177	86	52	232	17	50	206	16	83	209	84	1237
30 AM	18	134	42	37	172	21	48	208	24	56	111	57	928
45 AM	19	188	42	40	195	20	41	185	30	62	149	64	1035

PEAK HOUR BEGINS AT: 730 AM — PHF: 0.95

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	93	734	378	295	958	61	223	927	59	268	733	353	5082

FILENAME: 1071705P
DATE: 10/31/07
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	59	281	84	78	339	31	67	255	37	97	256	90	1674
15 PM	32	241	93	87	314	34	62	206	32	111	201	83	1496
30 PM	37	210	83	86	251	23	68	249	45	114	300	90	1556
45 PM	33	240	81	101	305	17	57	261	28	99	239	86	1547
5:00 PM	56	217	66	104	348	35	57	235	33	93	298	93	1635
15 PM	48	197	82	95	291	25	64	250	27	94	297	81	1551
30 PM	43	210	76	105	343	35	64	231	33	106	320	108	1674
45 PM	32	182	78	92	256	28	58	253	21	115	314	106	1535

PEAK HOUR BEGINS AT: 1645 PM — PHF: 0.96

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	180	864	305	405	1287	112	242	977	121	392	1154	368	6407

COMMENTS:

TRAFFIC DATA SERVICES, INC
SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : VINEYARD AVE
E/W ST: US-101 SB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 1071706A
DATE: 11/06/07
DAY: TUESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:		1.5	1.5		3	1	1		2				
7:00 AM		245	219		257	79	58		35				893
15 AM		279	200		263	98	51		45				936
30 AM		357	255		356	115	65		31				1179
45 AM		306	186		394	74	76		60				1096
8:00 AM		258	180		277	74	47		27				863
15 AM		232	165		299	60	54		57				867
30 AM		218	148		327	52	39		43				827
45 AM		207	119		274	49	55		42				746
PEAK HOUR BEGINS AT: 700 AM													PHF: 0.87
VOLUMES =	0	1187	860	0	1270	366	250	0	171	0	0	0	4104

FILENAME: 1071706Q
DATE: 11/06/07
DAY: TUESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM		326	184		435	41	85		38				1109
15 PM		313	156		446	42	73		40				1070
30 PM		315	188		450	36	100		42				1131
45 PM		287	144		455	51	51		25				1013
5:00 PM		344	198		467	55	71		47				1182
15 PM		314	171		469	57	66		29				1106
30 PM		319	160		449	46	64		29				1067
45 PM		286	152		417	29	83		46				1013
PEAK HOUR BEGINS AT: 1630 PM													PHF: 0.94
VOLUMES =	0	1260	701	0	1841	199	288	0	143	0	0	0	4432

COMMENTS:

TRAFFIC DATA SERVICES, INC
SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : VINEYARD AVE
E/W ST: US-101 NB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 1071707A
DATE: 11/06/07
DAY: TUESDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
LANES:		3	1		2	1				2		1	
7:00 AM		238	94		217	60				87		35	731
15 AM		253	76		267	83				105		46	830
30 AM		301	128		319	87				110		54	999
45 AM		312	60		315	77				123		56	943
8:00 AM		261	55		265	59				124		55	819
15 AM		190	40		247	68				117		36	698
30 AM		205	25		255	61				93		45	684
45 AM		196	11		223	70				123		42	665
PEAK HOUR BEGINS AT: 715 AM													PHF: 0.9
VOLUMES =	0	1127	319	0	1166	306	0	0	0	462	0	211	3591

FILENAME: 1071707P
DATE: 11/06/07
DAY: TUESDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
4:00 PM		272	84		302	70				159		26	913
15 PM		301	53		310	62				181		43	950
30 PM		295	43		263	68				162		40	871
45 PM		332	81		370	75				208		53	1119
5:00 PM		247	76		344	74				117		40	898
15 PM		302	53		329	88				130		31	933
30 PM		251	51		296	70				139		33	840
45 PM		256	39		272	59				154		37	817
PEAK HOUR BEGINS AT: 1600 PM													PHF: 0.86
VOLUMES =	0	1200	261	0	1245	275	0	0	0	710	0	162	3853

COMMENTS:

TRAFFIC DATA SERVICES, INC

SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : VENTURA RD
E/W ST: GONZALES RD
CITY: OXNARD

FILENAME: 0871705
DATE: 8/21/07
DAY: TUESDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
LANES:	1	2	1	1	2.5	0.5	1	2	1	2	2	0	
7:00 AM	29	124	56	30	102	12	26	55	11	47	54	5	551
15 AM	33	132	52	18	113	14	32	66	11	41	67	6	585
30 AM	41	153	74	9	134	22	39	79	11	47	90	11	710
45 AM	46	145	83	15	110	19	37	106	10	61	84	7	723
8:00 AM	37	107	66	28	86	8	21	81	17	46	67	2	566
15 AM	29	111	71	28	124	11	26	94	9	52	84	10	649
30 AM	36	84	77	27	99	13	14	80	18	42	68	8	566
45 AM	44	99	73	19	110	9	15	84	17	57	84	10	621

PEAK HOUR BEGINS AT: PHF: 0.92

730 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	153	516	294	80	454	60	123	360	47	206	325	30	2648

FILENAME: 0871705P
DATE: 8/22/07
DAY: WEDNESDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
4:00 PM	38	140	80	15	171	18	29	94	29	94	104	18	830
15 PM	27	146	78	16	172	18	22	91	22	117	105	16	830
30 PM	35	145	96	21	223	16	24	127	25	120	119	25	976
45 PM	56	124	94	28	172	15	28	102	32	122	96	22	891
5:00 PM	36	160	93	23	210	22	20	116	27	131	113	18	969
15 PM	59	186	104	18	235	14	41	120	34	136	131	26	1104
30 PM	49	141	105	22	239	19	30	100	34	143	132	16	1030
45 PM	45	168	104	26	252	16	25	89	22	138	114	23	1022

PEAK HOUR BEGINS AT: PHF: 0.93

1700 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	189	655	406	89	936	71	116	425	117	548	490	83	4125

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : VENTURA RD
E/W ST: WOOLEY RD
CITY: OXNARD

FILENAME: 0580901
DATE: 5/22/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	1	2	0	1	2	0	1	2	1	1	2	1	
7:00 AM	4	151	11	21	161	9	31	77	7	6	39	13	530
15 AM	13	246	18	21	194	22	52	138	9	20	77	42	852
30 AM	17	253	17	30	206	24	56	146	11	26	84	53	923
45 AM	20	267	12	29	214	16	52	161	13	24	91	44	943
8:00 AM	23	271	16	24	218	19	50	148	10	17	86	40	922
15 AM	14	159	11	22	146	12	36	80	4	20	69	31	604
30 AM	13	181	16	21	138	14	41	60	6	21	69	30	610
45 AM	11	195	13	23	157	16	31	64	14	17	60	36	637

PEAK HOUR BEGINS AT: 715 AM — PHF: 0.97

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	73	1037	63	104	832	81	210	593	43	87	338	179	3640

FILENAME: 0580901P
DATE: 6/03/08
DAY: TUESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	29	286	20	30	249	30	42	96	18	36	111	41	988
15 PM	22	306	10	32	222	44	35	101	8	58	166	51	1055
30 PM	22	246	24	47	282	37	39	98	20	43	135	43	1036
45 PM	19	260	17	34	238	37	46	121	20	50	157	56	1055
5:00 PM	15	292	14	31	313	39	38	84	13	48	176	66	1129
15 PM	22	285	19	44	263	41	30	130	32	57	168	45	1136
30 PM	20	283	22	29	339	32	32	93	24	61	155	51	1141
45 PM	24	261	18	44	250	46	33	90	20	42	140	54	1022

PEAK HOUR BEGINS AT: 1645 PM — PHF: 0.98

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	76	1120	72	138	1153	149	146	428	89	216	656	218	4461

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : OXNARD BLVD
E/W ST: 5TH ST
CITY: OXNARD

FILENAME: 0580902
DATE: 5/22/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	1	2	0	1	2	0	1	2	0	1	1	1	
7:00 AM	3	161	5	23	146	6	7	55	3	5	18	15	447
15 AM	8	203	17	16	163	5	6	54	1	7	30	11	521
30 AM	6	188	22	20	237	7	10	85	1	8	25	12	621
45 AM	4	234	15	45	265	6	5	129	2	6	33	13	757
8:00 AM	6	254	12	33	205	7	8	79	3	8	40	13	668
15 AM	7	168	8	26	170	12	6	57	2	13	41	17	527
30 AM	6	145	12	28	134	12	8	61	2	13	41	11	473
45 AM	15	147	16	41	146	14	6	51	0	10	44	20	510

PEAK HOUR BEGINS AT: PHF: 0.85
730 AM

VOLUMES =	23	844	57	124	877	32	29	350	8	35	139	55	2573

FILENAME: 0580902P
DATE: 5/22/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	21	251	15	50	346	18	14	66	10	17	77	25	910
15 PM	12	194	14	38	249	15	14	71	10	7	72	18	714
30 PM	22	239	23	39	258	16	11	78	13	29	84	35	847
45 PM	23	261	17	31	302	15	15	57	12	28	87	21	869
5:00 PM	14	282	15	28	294	13	17	64	10	23	74	34	868
15 PM	15	255	16	31	274	16	22	54	12	14	76	31	816
30 PM	11	304	14	30	269	11	24	70	11	20	83	29	876
45 PM	8	261	16	39	307	11	15	66	21	31	84	24	883

PEAK HOUR BEGINS AT: PHF: 0.97
1700 PM

VOLUMES =	48	1102	61	128	1144	51	78	254	54	88	317	118	3443

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : ROSE AVE
E/W ST: US-101 NB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 0580903
DATE: 6/03/08
DAY: TUESDAY

PERIOD BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	X	3	1	X	3	1	X	X	X	1.5	X	0.5	
7:00 AM		166	104		144	18				100		16	548
15 AM		203	145		178	33				108		15	682
30 AM		257	179		227	42				103		19	827
45 AM		250	250		282	49				147		43	1021
8:00 AM		254	153		245	50				86		21	809
15 AM		270	120		212	53				97		28	780
30 AM		178	127		177	34				85		20	621
45 AM		228	125		176	42				81		23	675

PEAK HOUR BEGINS AT: PHF: 0.84
730 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =		1031	702		966	194				433		111	3437

FILENAME: 0580903P
DATE: 6/04/08
DAY: WEDNESDAY

PERIOD BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
4:00 PM		323	172		324	104				120		67	1110
15 PM		364	166		290	112				150		53	1135
30 PM		343	219		243	105				165		54	1129
45 PM		357	187		316	123				153		39	1175
5:00 PM		471	288		335	116				172		45	1427
15 PM		306	178		345	118				119		44	1110
30 PM		370	190		312	108				136		47	1163
45 PM		393	179		262	95				165		39	1133

PEAK HOUR BEGINS AT: PHF: 0.85
1645 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =		1504	843		1308	465				580		175	4875

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : ROSE AVE
E/W ST: US-101 SB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 0580904
DATE: 6/03/08
DAY: TUESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	X	3	1	X	3	0	1.5	X	1.5	X	X	X	
7:00 AM		246	130		231	31	48		147				833
15 AM		270	147		255	23	43		121				859
30 AM		458	172		262	27	44		128				1091
45 AM		406	144		399	32	66		189				1236
8:00 AM		355	115		301	22	66		195				1054
15 AM		340	98		303	29	44		148				962
30 AM		329	113		238	25	32		139				876
45 AM		279	82		279	20	71		140				871
PEAK HOUR BEGINS AT: 730 AM													PHF: 0.88
VOLUMES =		1559	529		1265	110	220		660				4343

FILENAME: 0580904P
DATE: 6/03/08
DAY: TUESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM		417	116		444	34	93		194				1298
15 PM		432	106		396	29	96		198				1257
30 PM		474	105		446	35	87		211				1358
45 PM		470	98		433	35	106		233				1375
5:00 PM		556	107		468	43	93		220				1487
15 PM		461	86		464	29	106		246				1392
30 PM		501	95		417	29	99		185				1326
45 PM		414	84		421	31	114		202				1266
PEAK HOUR BEGINS AT: 1630 PM													PHF: 0.94
VOLUMES =		1961	396		1811	142	392		910				5612

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : ROSE AVE
E/W ST: BARD RD
CITY: OXNARD

FILENAME: 0580905
DATE: 6/04/08
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	1	2	1	1	2	1	1	2	0	1	2	0	
7:00 AM	7	67	2	20	44	12	48	41	5	0	15	23	284
15 AM	3	98	0	21	47	19	52	55	1	1	22	39	358
30 AM	7	173	5	31	90	44	50	71	9	0	32	56	568
45 AM	8	224	6	14	133	52	70	42	5	6	33	55	648
8:00 AM	11	120	9	31	106	38	65	52	14	0	31	23	500
15 AM	8	89	4	15	63	22	48	42	6	3	16	24	340
30 AM	2	76	2	9	46	26	31	33	1	2	11	25	264
45 AM	7	62	3	10	54	22	27	30	4	1	19	12	251

PEAK HOUR BEGINS AT: 715 AM — PHF: 0.8

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	29	615	20	97	376	153	237	220	29	7	118	173	2074

FILENAME: 0580905P
DATE: 6/04/08
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	6	94	1	11	113	73	49	39	8	3	61	34	492
15 PM	7	71	0	14	98	58	48	33	10	3	62	22	426
30 PM	11	88	5	20	123	69	47	35	7	4	76	41	526
45 PM	9	63	4	20	114	66	42	41	15	5	90	33	502
5:00 PM	16	86	3	14	132	78	44	32	11	4	86	32	538
15 PM	11	68	6	16	140	87	37	37	9	1	96	36	544
30 PM	11	90	3	11	110	56	49	40	5	6	66	33	480
45 PM	9	95	5	22	97	66	56	31	13	4	65	38	501

PEAK HOUR BEGINS AT: 1630 PM — PHF: 0.97

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	47	305	18	70	509	300	170	145	42	14	348	142	2110

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : ROSE AVE
E/W ST: PLEASANT VALLEY RD
CITY: OXNARD

FILENAME: 0580906
DATE: 6/03/08
DAY: TUESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	1	2	1	1	2	1	1	2	1	1	2	1	
7:00 AM	8	21	13	24	11	37	35	113	5	6	75	7	355
15 AM	6	15	7	29	11	32	53	134	0	5	103	23	418
30 AM	14	22	18	40	8	30	44	185	7	1	117	27	513
45 AM	20	30	14	40	19	45	95	192	7	2	157	33	654
8:00 AM	10	8	6	35	21	55	72	140	11	12	88	26	484
15 AM	13	18	7	19	13	44	47	106	4	10	81	28	390
30 AM	4	21	8	22	11	38	65	91	2	13	79	31	385
45 AM	7	24	8	28	11	48	56	60	0	2	77	35	356

PEAK HOUR BEGINS AT: 715 AM — PHF: 0.79

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	50	75	45	144	59	162	264	651	25	20	465	109	2069

FILENAME: 0580906P
DATE: 6/03/08
DAY: TUESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	14	33	1	21	27	38	31	80	1	3	79	14	342
15 PM	11	31	4	25	22	46	34	76	2	6	86	19	362
30 PM	12	23	3	29	26	36	45	86	4	9	110	23	406
45 PM	20	19	6	31	39	65	48	98	10	14	177	37	564
5:00 PM	21	17	4	36	44	69	50	103	5	12	171	36	568
15 PM	16	14	7	33	39	54	53	98	3	10	164	29	520
30 PM	10	18	3	33	37	75	57	80	6	13	168	37	537
45 PM	18	26	7	42	52	61	72	114	8	24	163	26	613

PEAK HOUR BEGINS AT: 1700 PM — PHF: 0.91

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	65	75	21	144	172	259	232	395	22	59	666	128	2238

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : CHANNEL ISLANDS BLVD
E/W ST: CHANNEL ISLANDS BLVD/SR-1 SB ON RAMP
CITY: OXNARD

FILENAME: 0580907
DATE: 6/05/08
DAY: THURSDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
LANES:	1.5	0	0.5	0	1	0	0	1	1	X	X	X	
7:00 AM	65	0	2	2	2	0	1	88	112				272
15 AM	97	0	1	1	0	0	1	84	83				267
30 AM	122	0	8	1	0	0	1	100	120				352
45 AM	182	0	5	0	0	0	2	85	143				417
8:00 AM	113	0	3	0	1	0	0	96	129				342
15 AM	54	0	1	0	0	0	0	55	60				170
30 AM	58	0	1	0	0	0	0	62	68				189
45 AM	64	0	2	0	1	0	1	29	62				159

PEAK HOUR BEGINS AT: 715 AM — PHF: 0.83

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	514	0	17	2	1	0	4	365	475				1378

FILENAME: 0580907P
DATE: 6/05/08
DAY: THURSDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
4:00 PM	205	0	3	1	0	0	0	38	95				342
15 PM	191	0	0	0	0	0	0	43	99				333
30 PM	196	0	0	0	0	0	0	32	78				306
45 PM	236	0	0	1	0	0	0	31	104				372
5:00 PM	207	0	2	2	0	0	0	38	98				347
15 PM	201	0	3	2	0	0	0	26	78				310
30 PM	222	0	2	0	0	0	0	41	118				383
45 PM	165	0	0	0	0	0	0	31	106				302

PEAK HOUR BEGINS AT: 1645 PM — PHF: 0.92

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	866	0	7	5	0	0	0	136	396				1412

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : BARD RD/DRIVEWAY
E/W ST: PLEASANT VALLEY RD
CITY: OXNARD

FILENAME: 0580908
DATE: 6/04/08
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	0	1	0	1.5	0.5	1	1	2	0	1	2	0	
7:00 AM	0	0	6	53	0	1	3	156	1	6	99	28	353
15 AM	0	0	0	68	0	4	6	178	1	4	89	54	404
30 AM	0	0	4	93	1	6	5	207	2	7	112	85	522
45 AM	0	0	3	66	1	3	20	239	2	2	152	97	585
8:00 AM	0	0	4	71	0	2	14	241	1	3	146	92	574
15 AM	0	0	2	74	0	1	11	236	0	3	140	87	554
30 AM	0	0	1	43	2	2	7	126	2	3	88	38	312
45 AM	0	0	7	32	2	1	5	83	2	2	94	35	263

PEAK HOUR BEGINS AT: PHF: 0.96
730 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	0	0	13	304	2	12	50	923	5	15	550	361	2235

FILENAME: 0580908P
DATE: 6/05/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	0	0	2	32	8	4	5	121	1	6	239	144	562
15 PM	0	0	0	40	1	7	5	146	0	9	190	101	499
30 PM	0	0	6	38	2	4	7	122	0	9	196	120	504
45 PM	0	0	3	42	2	2	15	134	0	11	225	135	569
5:00 PM	0	0	2	56	4	7	9	117	0	8	223	128	554
15 PM	0	0	5	44	3	8	11	127	0	11	261	157	627
30 PM	0	0	4	33	2	6	12	89	0	13	217	98	474
45 PM	0	0	2	28	3	4	11	92	0	14	225	115	494

PEAK HOUR BEGINS AT: PHF: 0.9
1630 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	0	0	16	180	11	21	42	500	0	39	905	540	2254

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : RICE AVE
E/W ST: US-101 SB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 0580909
DATE: 6/05/08
DAY: THURSDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
LANES:	X	2	0	1	2	X	0.5	0.5	1	X	X	X	
7:00 AM		140	120	26	209		15	0	149				659
15 AM		137	116	24	233		17	0	184				711
30 AM		238	173	40	313		28	0	185				977
45 AM		225	149	32	298		17	0	177				898
8:00 AM		238	139	24	330		21	0	187				939
15 AM		171	122	40	225		22	2	152				734
30 AM		195	134	29	252		18	2	132				762
45 AM		160	145	25	275		18	1	109				733
PEAK HOUR BEGINS AT: 730 AM													PHF: 0.91
VOLUMES =		872	583	136	1166		88	2	701				3548

FILENAME: 0580909P
DATE: 6/05/08
DAY: THURSDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
4:00 PM		351	132	52	290		25	0	114				964
15 PM		346	147	64	359		38	0	116				1070
30 PM		353	150	52	325		24	0	108				1012
45 PM		329	127	50	286		29	0	128				949
5:00 PM		359	184	59	319		33	0	105				1059
15 PM		313	143	52	274		33	1	117				933
30 PM		295	140	66	322		45	0	129				997
45 PM		262	103	39	254		32	0	108				798
PEAK HOUR BEGINS AT: 1615 PM													PHF: 0.96
VOLUMES =		1387	608	225	1289		124	0	457				4090

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : RICE AVE
E/W ST: CAMINO DEL SOL
CITY: OXNARD

FILENAME: 0580910
DATE: 6/04/08
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	1	3	1	1	3	0	1	2	1	1	2	1	
7:00 AM	14	135	9	29	237	16	27	41	11	7	18	22	566
15 AM	19	162	22	38	240	17	30	54	28	5	19	13	647
30 AM	19	203	16	60	258	20	33	37	9	19	32	22	728
45 AM	43	257	34	70	252	27	39	86	20	6	45	7	886
8:00 AM	21	218	16	39	281	33	17	30	17	14	31	13	730
15 AM	17	171	13	42	168	15	16	48	9	8	26	15	548
30 AM	11	186	7	7	215	25	11	23	13	7	21	13	539
45 AM	11	173	8	26	163	18	10	31	23	13	17	12	505

PEAK HOUR BEGINS AT: 715 AM — PHF: 0.84

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	102	840	88	207	1031	97	119	207	74	44	127	55	2991

FILENAME: 0580910P
DATE: 5/22/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	9	261	13	9	243	46	17	39	18	12	81	50	798
15 PM	57	277	8	16	256	67	21	26	20	13	60	37	858
30 PM	40	290	10	16	245	58	33	40	14	31	72	66	915
45 PM	61	332	9	17	316	64	24	44	9	16	98	36	1026
5:00 PM	53	265	13	17	286	44	34	72	17	23	126	50	1000
15 PM	59	287	7	11	275	39	22	35	9	10	78	23	855
30 PM	50	297	7	18	259	47	28	20	10	24	82	45	887
45 PM	55	282	9	13	224	36	18	19	6	5	50	41	758

PEAK HOUR BEGINS AT: 1615 PM — PHF: 0.93

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	211	1164	40	66	1103	233	112	182	60	83	356	189	3799

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : RICE AVE
E/W ST: WOOLEY RD
CITY: OXNARD

FILENAME: 0580911
DATE: 5/27/08
DAY: TUESDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
LANES:	1	2	X	X	2	1	2	X	1	X	X	X	
7:00 AM	5	214			206	36	77		9				547
15 AM	11	251			227	39	84		14				626
30 AM	3	326			247	50	128		5				759
45 AM	2	338			178	55	122		8				703
8:00 AM	9	218			189	43	88		6				553
15 AM	5	186			160	46	64		9				470
30 AM	15	170			151	38	66		5				445
45 AM	4	178			135	32	63		11				423

PEAK HOUR BEGINS AT: PHF: 0.87
715 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	25	1133			841	187	422		33				2641

FILENAME: 0580911P
DATE: 6/04/08
DAY: WEDNESDAY

PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
BEGINS	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
4:00 PM	26	259			284	100	76		3				748
15 PM	31	264			301	96	73		6				771
30 PM	29	272			294	78	65		3				741
45 PM	15	253			330	92	101		4				795
5:00 PM	17	260			368	91	90		5				831
15 PM	24	268			374	96	83		1				846
30 PM	11	210			262	75	46		5				609
45 PM	5	197			310	61	71		5				649

PEAK HOUR BEGINS AT: PHF: 0.95
1630 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	85	1053			1366	357	339		13				3213

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST :: RICE AVE
E/W ST: CHANNEL ISLANDS BLVD
CITY: OXNARD

FILENAME: 0580912
DATE: 6/04/08
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	1	2	X	X	2	0	2	X	1	X	X	X	
7:00 AM	18	95			163	40	107		24				447
15 AM	27	133			180	36	95		33				504
30 AM	22	152			136	39	117		51				517
45 AM	15	181			177	54	148		15				590
8:00 AM	20	147			130	32	62		26				417
15 AM	14	125			122	31	66		16				374
30 AM	10	117			135	22	64		11				359
45 AM	15	125			130	31	50		11				362

PEAK HOUR BEGINS AT: 700 AM — PHF: 0.87

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	82	561			656	169	467		123				2058

FILENAME: 0580912P
DATE: 5/27/08
DAY: TUESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	60	218			141	153	52		8				632
15 PM	72	171			195	167	49		10				667
30 PM	81	264			194	178	37		4				758
45 PM	85	252			192	161	51		8				749
5:00 PM	97	224			219	162	49		4				755
15 PM	87	204			252	176	37		6				762
30 PM	63	214			190	171	42		6				686
45 PM	52	144			206	173	32		4				611

PEAK HOUR BEGINS AT: 1630 PM — PHF: 0.99

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	350	944			857	677	174		22				3024

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST: RICE AVE/SR-1 NB ON/OFF RAMPS
E/W ST: PLEASANT VALLEY RD
CITY: OXNARD

FILENAME: 0580913
DATE: 6/05/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	2	0.5	0.5	X	X	X	1	2	X	X	2	0	
7:00 AM	18	0	1				56	197			104	12	388
15 AM	20	1	5				71	211			137	29	474
30 AM	31	0	6				82	288			173	18	598
45 AM	26	3	6				118	274			156	18	601
8:00 AM	19	0	5				70	209			113	17	433
15 AM	21	1	2				46	186			119	14	389
30 AM	30	0	7				40	129			66	15	287
45 AM	21	1	3				52	127			85	21	310

PEAK HOUR BEGINS AT: 715 AM — PHF: 0.88

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	96	4	22				341	982			579	82	2106

FILENAME: 0580913P
DATE: 6/05/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	63	17	3				26	162			287	31	589
15 PM	96	2	3				49	178			264	29	621
30 PM	125	3	2				58	165			307	36	696
45 PM	104	3	5				53	144			328	54	691
5:00 PM	103	1	7				52	165			362	48	738
15 PM	70	3	1				46	156			339	44	659
30 PM	80	1	2				46	127			244	33	533
45 PM	66	2	8				58	120			209	35	498

PEAK HOUR BEGINS AT: 1630 PM — PHF: 0.94

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	402	10	15				209	630			1336	182	2784

COMMENTS:

TRAFFIC DATA SERVICES, INC.
(714) 541-2228
Summary of Vehicular Turning Movements

N/S ST : RICE AVE
E/W ST: HUENEME RD
CITY: OXNARD

FILENAME: 0580914
DATE: 6/05/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	X	X	X	1	X	1	2	1	X	X	1	1	
7:00 AM				12		26	20	107			78	10	253
15 AM				10		28	17	96			75	6	232
30 AM				7		30	42	122			102	6	309
45 AM				16		28	32	115			99	7	297
8:00 AM				6		17	23	92			72	4	214
15 AM				12		25	27	105			85	11	265
30 AM				13		12	30	69			68	4	196
45 AM				5		11	14	70			42	8	150

PEAK HOUR BEGINS AT: PHF: 0.88
700 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =				45		112	111	440			354	29	1091

FILENAME: 0580914P
DATE: 6/05/08
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM				4		23	30	75			151	22	305
15 PM				6		27	22	80			164	21	320
30 PM				5		25	36	109			173	25	373
45 PM				3		29	34	112			174	30	382
5:00 PM				8		45	40	109			177	22	401
15 PM				4		41	37	115			174	28	399
30 PM				3		39	34	102			161	26	365
45 PM				7		51	21	53			113	11	256

PEAK HOUR BEGINS AT: PHF: 0.97
1630 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =				20		140	147	445			698	105	1555

COMMENTS:

TRAFFIC DATA SERVICES, INC

SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : DEL NORTE BLVD
E/W ST: SR-101 WB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 0371401
DATE: 3/21/07
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	0	1			1	0				0	1	0	
7:00 AM	13	5			22	4				135	0	6	185
15 AM	16	13			13	2				135	1	2	182
30 AM	24	19			30	5				142	0	6	226
45 AM	14	16			25	10				134	1	10	210
8:00 AM	26	14			21	10				149	0	6	226
15 AM	11	14			26	1				110	0	3	165
30 AM	22	9			16	5				81	0	8	141
45 AM	15	12			18	3				82	0	8	138

PEAK HOUR BEGINS AT: 715 AM — PHF: 0.93

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	80	62	0	0	89	27	0	0	0	560	2	24	844

FILENAME: 0371401P
DATE: 3/21/07
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	49	15			39	7				72	3	23	208
15 PM	64	16			19	6				86	1	31	223
30 PM	79	49			28	11				68	0	16	251
45 PM	68	22			38	8				93	2	20	251
5:00 PM	78	31			50	9				73	0	27	268
15 PM	82	45			42	8				80	0	13	270
30 PM	62	44			30	10				64	0	21	231
45 PM	33	35			19	5				79	0	20	191

PEAK HOUR BEGINS AT: 1630 PM — PHF: 0.96

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	307	147	0	0	158	36	0	0	0	314	2	76	1040

COMMENTS:

TRAFFIC DATA SERVICES, INC

SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : DEL NORTE BLVD
E/W ST: SR-101 EB ON/OFF RAMPS
CITY: OXNARD

FILENAME: 0371402A
DATE: 3/21/07
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:		1	0	0	1		0.5	0	0.5				
7:00 AM		11	75	17	140		4	0	39				286
15 AM		25	73	11	153		4	0	68				334
30 AM		26	60	18	117		9	0	30				260
45 AM		30	90	15	173		2	1	60				371
8:00 AM		34	74	8	163		7	0	41				327
15 AM		24	74	16	126		4	0	51				295
30 AM		33	63	13	102		5	1	38				255
45 AM		28	62	15	92		5	0	22				224
PEAK HOUR BEGINS AT: 715 AM													PHF: 0.87
VOLUMES =	0	115	297	52	606	0	22	1	199	0	0	0	1292

FILENAME: 0371402P
DATE: 3/21/07
DAY: WEDNESDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM		79	83	13	78		8	0	21				282
15 PM		85	103	11	101		5	0	30				335
30 PM		123	138	11	87		8	0	20				387
45 PM		107	129	15	125		12	0	27				415
5:00 PM		133	163	14	92		9	0	38				449
15 PM		105	146	8	80		14	0	21				374
30 PM		63	98	16	74		6	0	14				271
45 PM		53	83	9	78		10	0	11				244
PEAK HOUR BEGINS AT: 1630 PM													PHF: 0.9
VOLUMES =	0	468	576	48	384	0	43	0	106	0	0	0	1625

COMMENTS:

TRAFFIC DATA SERVICES, INC

SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : DEL NORTE BLVD
E/W ST: CAMINO DEL SOL
CITY: OXNARD

FILENAME: 0371403
DATE: 3/22/07
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	1	2	0	1	2	1	1	1	1	0	1	0	
7:00 AM	16	73	3	9	108	38	19	5	24	2	0	1	298
15 AM	19	64	1	7	107	28	31	3	22	5	0	3	290
30 AM	15	74	2	5	122	30	39	3	25	2	0	4	321
45 AM	13	94	3	18	114	47	45	7	32	1	0	1	375
8:00 AM	11	76	2	10	95	49	42	3	24	1	2	0	315
15 AM	11	79	3	15	88	33	34	2	21	6	5	3	300
30 AM	10	55	2	8	70	34	20	4	19	3	3	2	230
45 AM	13	46	1	10	83	26	22	2	19	0	2	4	228

PEAK HOUR BEGINS AT: 730 AM — PHF: 0.87

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	50	323	10	48	419	159	160	15	102	10	7	8	1311

FILENAME: 0371403P
DATE: 3/22/07
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	36	90	1	8	65	31	36	1	15	2	6	2	293
15 PM	42	103	1	10	75	32	41	4	14	2	3	0	327
30 PM	42	133	1	13	78	54	80	1	10	9	10	6	437
45 PM	44	112	0	9	79	44	46	3	8	3	6	4	358
5:00 PM	47	149	3	8	94	57	80	2	14	8	2	7	471
15 PM	31	102	0	3	49	41	42	2	12	8	3	1	294
30 PM	39	113	0	6	64	51	43	1	10	3	2	1	333
45 PM	35	80	2	4	69	39	25	0	12	1	2	1	270

PEAK HOUR BEGINS AT: 1615 PM — PHF: 0.85

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	175	497	5	40	326	187	247	10	46	22	21	17	1593

COMMENTS:

TRAFFIC DATA SERVICES, INC

SUMMARY OF VEHICULAR TURNING MOVEMENTS

N/S ST : DEL NORTE BLVD
E/W ST: 5TH ST (SR-34)
CITY: OXNARD

FILENAME: 0371404
DATE: 3/22/07
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
LANES:	0	1	0	1	0	1	1	1	0	0	1	0	
7:00 AM	0	4	0	25	1	29	55	97	1	1	46	7	266
15 AM	0	3	0	16	1	44	42	141	0	0	33	6	286
30 AM	0	4	0	22	2	56	51	191	1	0	61	11	399
45 AM	0	0	0	20	0	38	73	189	1	0	77	13	411
8:00 AM	0	1	0	14	1	32	38	132	0	0	61	5	284
15 AM	0	1	0	15	0	36	51	121	0	0	55	5	284
30 AM	0	0	0	15	0	34	36	83	0	0	72	7	247
45 AM	0	1	0	16	1	29	33	93	0	0	45	7	225

PEAK HOUR BEGINS AT: 715 AM — PHF: 0.84

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	0	8	0	72	4	170	204	653	2	0	232	35	1380

FILENAME: 0371404P
DATE: 3/22/07
DAY: THURSDAY

PERIOD BEGINS	NORTHBOUND NL	NT	NR	SOUTHBOUND SL	ST	SR	EASTBOUND EL	ET	ER	WESTBOUND WL	WT	WR	Total
4:00 PM	0	2	0	12	1	43	30	80	0	0	128	10	306
15 PM	0	1	0	4	0	43	31	87	0	0	188	15	369
30 PM	0	0	1	10	0	51	32	105	1	0	181	29	410
45 PM	1	0	0	12	0	37	20	98	0	0	204	23	395
5:00 PM	0	0	0	16	0	63	39	79	0	0	124	9	330
15 PM	0	0	0	16	1	27	20	96	0	0	198	19	377
30 PM	1	3	0	21	0	45	28	99	1	0	151	10	359
45 PM	0	0	0	9	0	36	32	70	0	0	112	11	270

PEAK HOUR BEGINS AT: 1630 PM — PHF: 0.92

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	Total
VOLUMES =	1	0	1	54	1	178	111	378	1	0	707	80	1512

COMMENTS:

APPENDIX B

LEVEL OF SERVICE WORKSHEETS:
EXISTING & 2030 OTM SCENARIOS

20. Ventura & Gonzales

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	153	.10*	189	.12*
NBT	2	3200	516	.16	655	.20
NBR	1	1600	294	.18	406	.25
SBL	1	1600	80	.05	89	.06
SBT	3	4800	454	.11*	936	.21*
SBR	0	0	60		71	
EBL	1	1600	123	.08*	116	.07
EBT	2	3200	360	.11	425	.13*
EBR	1	1600	47	.03	117	.07
WBL	2	3200	206	.06	548	.17*
WBT	2	3200	325	.11*	490	.18
WBR	0	0	30		83	

TOTAL CAPACITY UTILIZATION .40 .63

24. Ventura & Wooley

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	73	.05	76	.05
NBT	2	3200	1037	.34*	1120	.37*
NBR	0	0	63		72	
SBL	1	1600	104	.07*	138	.09*
SBT	2	3200	832	.29	1153	.41
SBR	0	0	81		149	
EBL	1	1600	210	.13	146	.09*
EBT	2	3200	593	.19*	428	.13
EBR	1	1600	43	.03	89	.06
WBL	1	1600	87	.05*	216	.14
WBT	2	3200	338	.11	656	.21*
WBR	1	1600	179	.11	218	.14

TOTAL CAPACITY UTILIZATION .65 .76

45. Oxnard & Vineyard

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	83	.03	295	.09*
NBT	2	3200	560	.18*	694	.22
NBR	2	3200	780	.24	779	.24
SBL	2	3200	98	.03*	181	.06
SBT	3	4800	592	.14	819	.21*
SBR	0	0	98		177	
EBL	1.5		259	.16	233	
EBT	2.5	6400	1162	.24*	595	.13*
EBR	1	1600	175	.11	140	.09
WBL	3	4800	594	.12	901	.19
WBT	2	3200	441	.14*	1033	.33*
WBR	0	0	17		20	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .59 .76

46. Oxnard & Gonzales

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	93	.03	180	.06*
NBT	3	4800	734	.15*	864	.18
NBR	1	1600	378	.24	305	.19
SBL	2	3200	295	.09*	405	.13
SBT	3	4800	958	.20	1287	.27*
SBR	1	1600	61	.04	112	.07
EBL	2	3200	223	.07	242	.08
EBT	2	3200	927	.29*	977	.31*
EBR	1	1600	59	.04	121	.08
WBL	2	3200	268	.08*	392	.12*
WBT	3	4800	733	.15	1154	.24
WBR	1	1600	353	.22	368	.23
Right Turn Adjustment			NBR	.03*		

TOTAL CAPACITY UTILIZATION .64 .76

49. Oxnard & 5th St

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	23	.01	48	.03
NBT	2	3200	844	.28*	1102	.36*
NBR	0	0	57		61	
SBL	1	1600	124	.08*	128	.08*
SBT	2	3200	877	.28	1144	.37
SBR	0	0	32		51	
EBL	1	1600	29	.02	78	.05*
EBT	2	3200	350	.11*	254	.10
EBR	0	0	8		54	
WBL	1	1600	35	.02*	88	.06
WBT	1	1600	139	.09	317	.20*
WBR	1	1600	55	.03	118	.07

TOTAL CAPACITY UTILIZATION .49 .69

61. Rose & Auto Center

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	102	.06*	148	.09
NBT	2	3200	606	.19	731	.23*
NBR	1	1600	443	.28	800	.50
SBL	1	1600	164	.10	175	.11*
SBT	2	3200	772	.25*	611	.19
SBR	0	0	25		12	
EBL	1	1600	43	.03	9	.01
EBT	1	1600	42	.03*	53	.03*
EBR	1	1600	88	.06	177	.11
WBL	2.5		177		926	
WBT	0.5	4800	27	.04*	71	.21*
WBR	1	1600	91	.06	213	.13
Right Turn Adjustment			NBR	.03*	NBR	.06*

Note: Assumes E/W Split Phasing
Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION .41 .64

65. Rose & Gonzales

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	266	.08	396	.12*
NBT	3	4800	1125	.23*	1190	.25
NBR	1	1600	200	.13	102	.06
SBL	2	3200	311	.10*	309	.10
SBT	3	4800	1021	.21	1477	.31*
SBR	1	1600	296	.19	616	.39
EBL	2	3200	704	.22*	590	.18*
EBT	3	4800	858	.18	584	.12
EBR	1	1600	240	.15	197	.12
WBL	1	1600	79	.05	153	.10
WBT	3	4800	342	.07*	1084	.23*
WBR	1	1600	137	.09	267	.17

TOTAL CAPACITY UTILIZATION .62 .84

66. Rose & Camino del Sol

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	127	.08	97	.06
NBT	2	3200	1163	.36*	1267	.40*
NBR	1	1600	215	.13	148	.09
SBL	1	1600	180	.11*	139	.09*
SBT	2	3200	1196	.37	1248	.39
SBR	f		77		263	
EBL	1	1600	188	.12	132	.08
EBT	2	3200	247	.12*	177	.09*
EBR	0	0	133		95	
WBL	1	1600	150	.09*	252	.16*
WBT	2	3200	148	.05	456	.14
WBR	1	1600	91	.06	239	.15

TOTAL CAPACITY UTILIZATION .68 .74

68. Rose & 5th

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	17	.01	20	.01*
NBT	3	4800	1175	.26*	1221	.27
NBR	0	0	97		52	
SBL	1	1600	41	.03*	31	.02
SBT	3	4800	1164	.27	1266	.31*
SBR	0	0	148		208	
EBL	2	3200	231	.07	332	.10
EBT	1	1600	440	.28*	318	.20*
EBR	1	1600	31	.02	40	.03
WBL	1	1600	133	.08*	216	.14*
WBT	2	3200	259	.09	567	.20
WBR	0	0	26		69	
TOTAL CAPACITY UTILIZATION				**.65**		**.66**

69. Rose & Wooley

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	32	.02*	33	.02*
NBT	2	3200	1038	.32	849	.27
NBR	1	1600	103	.06	77	.05
SBL	1	1600	22	.01	9	.01
SBT	2	3200	1001	.31*	1256	.39*
SBR	f		391		413	
EBL	2	3200	237	.07	330	.10*
EBT	2	3200	297	.10*	210	.08
EBR	0	0	34		59	
WBL	1	1600	62	.04*	113	.07
WBT	2	3200	140	.05	354	.12*
WBR	0	0	19		27	
TOTAL CAPACITY UTILIZATION				**.47**		**.63**

71. Rose & Oxnard

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	150	.09*	149	.09*
NBT	2	3200	771	.24	752	.24
NBR	1	1600	33	.02	23	.01
SBL	2	3200	35	.01	58	.02
SBT	2	3200	599	.19*	1025	.32*
SBR	f		28		48	
EBL	0	0	0		0	
EBT	2	3200	307	.10*	201	.06
EBR	f		204		322	
WBL	0	0	1		0	
WBT	2	3200	250	.08	729	.23*
WBR	f		74		84	
TOTAL CAPACITY UTILIZATION				**.38**		**.64**

72. Rose & Channel Islands

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	149	.05	262	.08
NBT	2	3200	635	.20*	53	.02*
NBR	1	1600	98	.06	9	.01
SBL	1	1600	108	.07*	195	.12*
SBT	3	4800	527	.14	96	.03
SBR	0	0	137		335	.21
EBL	2	3200	374	.12	460	.14*
EBT	2	3200	647	.20*	390	.12
EBR	1	1600	190	.12	186	.12
WBL	2	3200	153	.05*	276	.09
WBT	2	3200	279	.09	762	.24*
WBR	1	1600	4	.00	8	.01
Right Turn Adjustment					SBR	.04*
TOTAL CAPACITY UTILIZATION				**.52**		**.56**

73. Rose & Bard

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	29	.02	47	.03*
NBT	2	3200	615	.19*	305	.10
NBR	1	1600	20	.01	18	.01
SBL	1	1600	197	.12*	70	.04
SBT	2	3200	376	.12	509	.16*
SBR	1	1600	153	.10	300	.19
EBL	1	1600	237	.15*	170	.11*
EBT	2	3200	220	.08	145	.06
EBR	0	0	29		42	
WBL	1	1600	7	.00	14	.01
WBT	2	3200	118	.07*	348	.15*
WBR	0	0	173	.11	142	
TOTAL CAPACITY UTILIZATION				**.53**		**.45**

74. Rose & Pleasant Valley

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03	65	.04
NBT	2	3200	75	.02*	75	.02*
NBR	1	1600	45	.03	21	.01
SBL	1	1600	144	.09*	144	.09*
SBT	2	3200	59	.02	172	.05
SBR	1	1600	162	.10	259	.16
EBL	1	1600	264	.17*	232	.15*
EBT	2	3200	651	.20	395	.12
EBR	1	1600	25	.02	22	.01
WBL	1	1600	20	.01	59	.04
WBT	2	3200	465	.15*	666	.21*
WBR	1	1600	109	.07	128	.08
TOTAL CAPACITY UTILIZATION				**.43**		**.47**

77. Dupont & Channel Islands

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	2		2	
NBT	1	1600	50	.03	107	.07
NBR	1	1600	375	.23	324	.20
SBL	1	1600	82	.05	50	.03
SBT	1	1600	128	.11*	166	.13*
SBR	0	0	50		43	
EBL	1	1600	12	.01	50	.03
EBT	1	1600	24	.02*	55	.03*
EBR	1	1600	28	.02	243	.15
WBL	1	1600	251	.16*	635	.40*
WBT	2	3200	103	.03	168	.05
WBR	1	1600	38	.02	148	.09
Right Turn Adjustment			NBR	.05*	EBR	.12*
TOTAL CAPACITY UTILIZATION				**.34**		**.68**

78. Bard & Pleasant Valley

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1600	0	.01*	0	.01*
NBR	0	0	13		16	
SBL	1.5		304		180	
SBT	0.5	3200	2	.10*	11	.06*
SBR	1	1600	12	.01	21	.01
EBL	1	1600	50	.03*	42	.03*
EBT	2	3200	923	.29	500	.16
EBR	0	0	5		0	
WBL	1	1600	15	.01	39	.02
WBT	2	3200	550	.28*	905	.45*
WBR	0	0	361		540	

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .42 .55

79. Santa Clara & Auto Center

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	205	.13	400	.25*
NBT	1	1600	378	.24*	495	.31
NBR	f		550		1006	
SBL	1	1600	81	.05*	62	.04
SBT	2	3200	329	.13	598	.21*
SBR	0	0	72		74	
EBL	1	1600	67	.04	185	.12*
EBT	1	1600	60	.04*	81	.05
EBR	1	1600	227	.14	498	.31
WBL	2	3200	747	.23*	542	.17
WBT	1	1600	168	.11	261	.16*
WBR	1	1600	27	.02	33	.02
Right Turn Adjustment					EBR	.01*
TOTAL CAPACITY UTILIZATION				**.56**		**.75**

81. Rice & Gonzales

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	209	.07*	344	.11*
NBT	2	3200	952	.30	1105	.35
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1251	.26*	1327	.28*
SBR	1	1600	630	.39	425	.27
EBL	2	3200	444	.14*	692	.22*
EBT	0	0	0		0	
EBR	1	1600	14	.01	275	.17
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			SBR	.02*		
TOTAL CAPACITY UTILIZATION				**.49**		**.61**

82. Rice & Camino Del Sol

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	102	.06	211	.13*
NBT	3	4800	840	.18*	1164	.24
NBR	1	1600	88	.06	40	.03
SBL	1	1600	207	.13*	66	.04
SBT	3	4800	1031	.21	1103	.23*
SBR	d	1600	97	.06	233	.15
EBL	1	1600	119	.07*	112	.07*
EBT	2	3200	207	.06	182	.06
EBR	1	1600	74	.05	60	.04
WBL	1	1600	44	.03	83	.05
WBT	2	3200	127	.04*	356	.11*
WBR	1	1600	55	.03	189	.12
TOTAL CAPACITY UTILIZATION				**.42**		**.54**

84. Rice & Fifth

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	14	.01	29	.02*
NBT	2	3200	1069	.33*	1014	.32
NBR	1	1600	328	.21	233	.15
SBL	1	1600	21	.01*	20	.01
SBT	2	3200	843	.26	1356	.42*
SBR	1	1600	100	.06	229	.14
EBL	1	1600	120	.08	78	.05
EBT	2	3200	353	.12*	293	.10*
EBR	0	0	18		12	
WBL	1	1600	117	.07*	305	.19*
WBT	2	3200	252	.08	492	.17
WBR	0	0	19		43	
TOTAL CAPACITY UTILIZATION				**.53**		**.73**

85. Rice & Wooley

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	25	.02	85	.05*
NBT	2	3200	1133	.35*	1053	.33
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	841	.26	1366	.43*
SBR	1	1600	187	.12	357	.22
EBL	2	3200	422	.13*	339	.11*
EBT	0	0	0		0	
EBR	1	1600	33	.02	13	.01
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				**.48**		**.59**

86. Rice & Channel Islands

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	82	.05*	350	.22*
NBT	2	3200	561	.18	944	.29
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	656	.21*	857	.27*
SBR	d	1600	169	.11	677	.42
EBL	2	3200	467	.15*	174	.05*
EBT	0	0	0		0	
EBR	1	1600	123	.08	22	.01
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					SBR	.11*
TOTAL CAPACITY UTILIZATION				**.41**		**.65**

87. SR-1/Rice NB & Pleasant Vly

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	96	.03*	402	.13*
NBT	1	1600	4	.02	10	.02
NBR	0	0	22		15	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	341	.21*	209	.13*
EBT	2	3200	982	.31	630	.20
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	579	.21*	1336	.47*
WBR	0	0	82		182	
TOTAL CAPACITY UTILIZATION				**.45**		**.73**

88. Oxnard & Pleasant Valley

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	164	.10*	439	.27*
NBT	2	3200	1	.00	5	.00
NBR	1	1600	80	.05	69	.04
SBL	1	1600	299	.19	161	.10
SBT	2	3200	333	.10*	148	.05*
SBR	1	1600	81	.05	110	.07
EBL	1	1600	104	.07	68	.04*
EBT	2	3200	1055	.33*	516	.16
EBR	1	1600	128	.08	561	.35
WBL	1	1600	16	.01*	11	.01
WBT	2	3200	521	.16	1076	.34*
WBR	f		152		697	
Right Turn Adjustment			NBR	.03*		
TOTAL CAPACITY UTILIZATION				**.57**		**.70**

89. Rice & Hueneme

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	45	.03*	20	.01*
SBT	0	0	0		0	
SBR	f		112		140	
EBL	2	3200	111	.03	147	.05*
EBT	1	1600	440	.28*	445	.28
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	354	.22	698	.44*
WBR	f		29		105	
TOTAL CAPACITY UTILIZATION				**.31**		**.50**

92. Del Norte & Camino Del Sol

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03*	175	.11*
NBT	2	3200	323	.10	497	.16
NBR	d	1600	10	.01	5	.00
SBL	1	1600	48	.03	40	.03
SBT	2	3200	419	.13*	326	.10*
SBR	1	1600	159	.10	187	.12
EBL	1	1600	160	.10*	247	.15*
EBT	1	1600	15	.01	10	.01
EBR	1	1600	102	.06	46	.03
WBL	0	0	10		22	
WBT	1	1600	7	.02*	21	.04*
WBR	0	0	8		17	
TOTAL CAPACITY UTILIZATION				**.28**		**.40**

94. Del Norte & 5th St

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	72	.05*	54	.03*
SBT	0	0	0		0	
SBR	1	1600	170	.11	178	.11
EBL	1	1600	204	.13	111	.07*
EBT	1	1600	653	.41*	378	.24
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	232	.17	707	.49*
WBR	0	0	35		80	
Right Turn Adjustment					SBR	.03*
TOTAL CAPACITY UTILIZATION				**.46**		**.62**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				1.00		1.00	0.97	0.95			0.86	1.00
Frt				1.00		0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770		1583	3433	3539			6408	1583
Flt Permitted				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770		1583	3433	3539			6408	1583
Volume (vph)	0	0	0	131	0	149	623	123	0	0	128	450
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	0	0	0	160	0	182	760	150	0	0	156	549
RTOR Reduction (vph)	0	0	0	0	0	154	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	160	0	28	760	150	0	0	156	549
Turn Type				custom		custom	Prot					Free
Protected Phases							5	2			6	
Permitted Phases				8		8						Free
Actuated Green, G (s)				13.0		13.0	32.0	69.0			33.0	90.0
Effective Green, g (s)				14.0		14.0	33.0	70.0			34.0	90.0
Actuated g/C Ratio				0.16		0.16	0.37	0.78			0.38	1.00
Clearance Time (s)				4.0		4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				275		246	1259	2753			2421	1583
v/s Ratio Prot							c0.22	0.04			0.02	
v/s Ratio Perm				c0.09		0.02						c0.35
v/c Ratio				0.58		0.12	0.60	0.05			0.06	0.35
Uniform Delay, d1				35.3		32.7	23.2	2.3			17.9	0.0
Progression Factor				1.00		1.00	0.88	0.85			1.00	1.00
Incremental Delay, d2				3.1		0.2	0.8	0.0			0.1	0.6
Delay (s)				38.4		32.9	21.3	2.0			17.9	0.6
Level of Service				D		C	C	A			B	A
Approach Delay (s)		0.0			35.5			18.1			4.4	
Approach LOS		A			D			B			A	

Intersection Summary

HCM Average Control Delay	16.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	34.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97		1.00					0.86	1.00	0.97	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433		1583					6408	1583	3433	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433		1583					6408	1583	3433	3539	
Volume (vph)	62	0	553	0	0	0	0	701	129	103	154	0
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	74	0	658	0	0	0	0	835	154	123	183	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	74	0	658	0	0	0	0	835	154	123	183	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	6.0		90.0					64.5	90.0	7.5	76.0	
Effective Green, g (s)	7.0		90.0					65.5	90.0	8.5	77.0	
Actuated g/C Ratio	0.08		1.00					0.73	1.00	0.09	0.86	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	267		1583					4664	1583	324	3028	
v/s Ratio Prot								0.13		0.04	0.05	
v/s Ratio Perm	0.02		c0.42						0.10			
v/c Ratio	0.28		0.42					0.18	0.10	0.38	0.06	
Uniform Delay, d1	39.1		0.0					3.8	0.0	38.3	1.0	
Progression Factor	1.00		1.00					1.00	1.00	0.52	1.17	
Incremental Delay, d2	0.6		0.8					0.1	0.1	0.7	0.0	
Delay (s)	39.7		0.8					3.9	0.1	20.8	1.2	
Level of Service	D		A					A	A	C	A	
Approach Delay (s)		4.7			0.0			3.3			9.1	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	4.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	34.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97	0.95	0.88	0.97	0.91		0.86	0.86	1.00	0.94	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	2787	3433	4977		1522	4806	1583	4990	3519	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	2787	3433	4977		1522	4806	1583	4990	3519	
Volume (vph)	83	560	780	98	592	98	259	1162	175	594	441	17
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	91	615	857	108	651	108	285	1277	192	653	485	19
RTOR Reduction (vph)	0	0	521	0	28	0	0	0	91	0	3	0
Lane Group Flow (vph)	91	615	336	108	731	0	285	1277	101	653	501	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			
Actuated Green, G (s)	3.1	19.2	19.2	3.1	19.2		23.9	23.9	23.9	15.0	15.0	
Effective Green, g (s)	4.1	20.2	20.2	4.1	20.2		24.9	24.9	24.9	16.0	16.0	
Actuated g/C Ratio	0.05	0.26	0.26	0.05	0.26		0.32	0.32	0.32	0.21	0.21	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	182	926	729	182	1302		491	1550	511	1034	729	
v/s Ratio Prot	0.03	c0.17		c0.03	0.15		0.19	c0.27		0.13	c0.14	
v/s Ratio Perm			0.12						0.06			
v/c Ratio	0.50	0.66	0.46	0.59	0.56		0.58	0.82	0.20	0.63	0.69	
Uniform Delay, d1	35.6	25.5	23.9	35.7	24.7		21.8	24.1	18.9	27.9	28.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.2	3.8	2.1	5.1	1.8		1.7	3.7	0.2	1.3	2.7	
Delay (s)	37.7	29.2	26.0	40.8	26.4		23.5	27.8	19.1	29.2	31.0	
Level of Service	D	C	C	D	C		C	C	B	C	C	
Approach Delay (s)		28.0			28.2			26.2			30.0	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	27.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	77.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Volume (vph)	223	927	59	268	733	353	93	734	378	295	958	61
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	235	976	62	282	772	372	98	773	398	311	1008	64
RTOR Reduction (vph)	0	0	42	0	0	150	0	0	182	0	0	40
Lane Group Flow (vph)	235	976	20	282	772	222	98	773	216	311	1008	24
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	9.5	27.7	27.7	9.7	27.9	27.9	3.1	23.9	23.9	10.6	31.4	31.4
Effective Green, g (s)	10.5	28.7	28.7	10.7	28.9	28.9	4.1	24.9	24.9	11.6	32.4	32.4
Actuated g/C Ratio	0.12	0.33	0.33	0.12	0.33	0.33	0.05	0.28	0.28	0.13	0.37	0.37
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	410	1156	517	418	1672	520	160	1440	448	453	1874	583
v/s Ratio Prot	0.07	c0.28		c0.08	0.15		0.03	0.15		c0.09	c0.20	
v/s Ratio Perm			0.01			0.14			0.14			0.01
v/c Ratio	0.57	0.84	0.04	0.67	0.46	0.43	0.61	0.54	0.48	0.69	0.54	0.04
Uniform Delay, d1	36.6	27.5	20.2	36.9	23.3	23.0	41.1	26.6	26.1	36.4	21.9	17.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.9	5.8	0.0	4.3	0.2	0.6	6.8	1.4	3.7	4.3	1.1	0.1
Delay (s)	38.5	33.3	20.2	41.2	23.5	23.6	47.9	28.1	29.8	40.7	23.0	17.9
Level of Service	D	C	C	D	C	C	D	C	C	D	C	B
Approach Delay (s)		33.6			27.1			30.1			26.7	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	29.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	87.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3528		1770	1863	1583	1770	3506		1770	3520	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3528		1770	1863	1583	1770	3506		1770	3520	
Volume (vph)	29	350	8	35	139	55	23	844	57	124	877	32
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	34	412	9	41	164	65	27	993	67	146	1032	38
RTOR Reduction (vph)	0	2	0	0	0	53	0	6	0	0	3	0
Lane Group Flow (vph)	34	419	0	41	164	12	27	1054	0	146	1067	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	2.2	13.1		2.2	13.1	13.1	1.4	37.0		8.0	43.6	
Effective Green, g (s)	3.2	14.1		3.2	14.1	14.1	2.4	38.0		9.0	44.6	
Actuated g/C Ratio	0.04	0.18		0.04	0.18	0.18	0.03	0.50		0.12	0.58	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	74	652		74	344	293	56	1746		209	2058	
v/s Ratio Prot	0.02	c0.12		c0.02	0.09		0.02	c0.30		c0.08	0.30	
v/s Ratio Perm						0.01						
v/c Ratio	0.46	0.64		0.55	0.48	0.04	0.48	0.60		0.70	0.52	
Uniform Delay, d1	35.7	28.8		35.9	27.8	25.5	36.3	13.7		32.3	9.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.5	2.2		8.7	1.0	0.1	6.4	1.6		9.8	0.9	
Delay (s)	40.2	31.0		44.5	28.8	25.6	42.7	15.3		42.1	10.4	
Level of Service	D	C		D	C	C	D	B		D	B	
Approach Delay (s)		31.6			30.4			16.0			14.2	
Approach LOS		C			C			B			B	

Intersection Summary

HCM Average Control Delay	18.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	76.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Util. Factor	1.00	1.00	1.00			1.00	0.91		1.00	0.95		
Frt	1.00	1.00	0.85			1.00	0.85		1.00	0.86		
Flt Protected	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1583			1770	4322		1770	3049		
Flt Permitted	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1863	1583			1770	4322		1770	3049		
Volume (vph)	24	193	495	82	17	142	0	96	152	54	522	129
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	28	227	582	96	20	167	0	113	179	64	614	152
RTOR Reduction (vph)	0	0	4	0	0	0	100	0	0	13	0	0
Lane Group Flow (vph)	28	227	674	0	0	187	13	0	179	817	0	0
Turn Type	Split		Perm		Split	Split			Split			
Protected Phases	4	4			8	8	8		2	2		
Permitted Phases			4									
Actuated Green, G (s)	44.0	44.0	44.0			16.0	16.0		31.0	31.0		
Effective Green, g (s)	45.0	45.0	45.0			17.0	17.0		32.0	32.0		
Actuated g/C Ratio	0.30	0.30	0.30			0.11	0.11		0.21	0.21		
Clearance Time (s)	4.0	4.0	4.0			4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	531	559	475			201	490		378	650		
v/s Ratio Prot	0.02	0.12				c0.11	0.00		0.10	c0.27		
v/s Ratio Perm			c0.43									
v/c Ratio	0.05	0.41	1.42			0.93	0.03		0.47	2.19dr		
Uniform Delay, d1	37.3	41.8	52.5			65.9	59.1		51.6	59.0		
Progression Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.0	0.5	200.4			44.1	0.0		0.9	128.1		
Delay (s)	37.4	42.3	252.9			110.0	59.2		52.6	187.1		
Level of Service	D	D	F			F	E		D	F		
Approach Delay (s)		195.2					90.9			163.3		
Approach LOS		F					F			F		

Intersection Summary

HCM Average Control Delay	145.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	93.8%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

Movement	SBL2	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	
Lane Util. Factor		0.86	0.86		1.00	1.00	0.88	
Frt		1.00	0.99		1.00	1.00	0.85	
Flt Protected		0.95	0.98		0.95	0.95	1.00	
Satd. Flow (prot)		1522	4649		1770	1770	2787	
Flt Permitted		0.95	0.98		0.95	0.95	1.00	
Satd. Flow (perm)		1522	4649		1770	1770	2787	
Volume (vph)	42	482	281	43	12	168	196	11
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	49	567	331	51	14	198	231	13
RTOR Reduction (vph)	0	0	6	0	0	0	3	0
Lane Group Flow (vph)	0	308	684	0	14	198	241	0
Turn Type	Split		Prot		Prot	Prot		
Protected Phases	6	6	6		1	1		
Permitted Phases							1	
Actuated Green, G (s)		23.0	23.0		16.0	16.0	16.0	
Effective Green, g (s)		24.0	24.0		17.0	17.0	17.0	
Actuated g/C Ratio		0.16	0.16		0.11	0.11	0.11	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		244	744		201	201	316	
v/s Ratio Prot		c0.20	0.15		0.01	c0.11		
v/s Ratio Perm							0.09	
v/c Ratio		1.26	1.12dl		0.07	0.99	0.76	
Uniform Delay, d1		63.0	62.0		59.4	66.4	64.6	
Progression Factor		1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2		146.6	16.3		0.1	58.7	10.5	
Delay (s)		209.6	78.4		59.6	125.1	75.0	
Level of Service		F	E		E	F	E	
Approach Delay (s)			118.9			96.3		
Approach LOS			F			F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	462	0	211	0	1127	319	0	1166	306
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	513	0	234	0	1252	354	0	1296	340
RTOR Reduction (vph)	0	0	0	0	0	47	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	513	0	187	0	1252	354	0	1296	340
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				18.9		18.9		63.1	90.0		63.1	90.0
Effective Green, g (s)				19.9		19.9		64.1	90.0		64.1	90.0
Actuated g/C Ratio				0.22		0.22		0.71	1.00		0.71	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				759		350		3622	1583		2521	1583
v/s Ratio Prot				c0.15		0.12		0.25			c0.37	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.68		0.54		0.35	0.22		0.51	0.21
Uniform Delay, d1				32.1		31.0		4.9	0.0		5.9	0.0
Progression Factor				1.00		1.00		0.66	1.00		1.00	1.00
Incremental Delay, d2				2.4		1.6		0.2	0.3		0.8	0.3
Delay (s)				34.5		32.5		3.5	0.3		6.6	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			33.9			2.8			5.3	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	9.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	52.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.87						1.00	0.85		0.97	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1534						3539	1583		4915	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1534						3539	1583		4915	
Volume (vph)	250	0	171	0	0	0	0	1187	860	0	1270	366
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	287	0	197	0	0	0	0	1364	989	0	1460	421
RTOR Reduction (vph)	0	31	0	0	0	0	0	0	0	0	39	0
Lane Group Flow (vph)	250	203	0	0	0	0	0	1364	989	0	1842	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.9	17.9						64.1	90.0		64.1	
Effective Green, g (s)	18.9	18.9						65.1	90.0		65.1	
Actuated g/C Ratio	0.21	0.21						0.72	1.00		0.72	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	353	322						2560	1583		3555	
v/s Ratio Prot	0.15	0.13						0.39			0.37	
v/s Ratio Perm									c0.62			
v/c Ratio	0.71	0.63						0.53	0.62		0.52	
Uniform Delay, d1	33.0	32.4						5.6	0.0		5.5	
Progression Factor	1.00	1.00						1.00	1.00		0.61	
Incremental Delay, d2	6.4	4.0						0.8	1.9		0.5	
Delay (s)	39.4	36.4						6.4	1.9		3.8	
Level of Service	D	D						A	A		A	
Approach Delay (s)		37.9			0.0			4.5			3.8	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	51.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0			3.0	3.0		3.0	3.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.94			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.97			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1681	1610			5085	1583		5085	1583
Flt Permitted				0.95	0.97			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1681	1610			5085	1583		5085	1583
Volume (vph)	0	0	0	433	0	111	0	1031	702	0	966	194
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.92	0.84	0.92	0.84	0.84	0.92	0.84	0.84
Adj. Flow (vph)	0	0	0	515	0	132	0	1227	836	0	1150	231
RTOR Reduction (vph)	0	0	0	0	23	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	338	286	0	0	1227	836	0	1150	231
Turn Type				Perm					Free			Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				22.1	22.1			59.9	90.0		59.9	90.0
Effective Green, g (s)				23.1	23.1			60.9	90.0		60.9	90.0
Actuated g/C Ratio				0.26	0.26			0.68	1.00		0.68	1.00
Clearance Time (s)				4.0	4.0			4.0			4.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				431	413			3441	1583		3441	1583
v/s Ratio Prot								0.24			0.23	
v/s Ratio Perm				c0.20	0.18				c0.53			0.15
v/c Ratio				0.78	0.69			0.36	0.53		0.33	0.15
Uniform Delay, d1				31.1	30.2			6.2	0.0		6.1	0.0
Progression Factor				1.00	1.00			0.98	1.00		1.00	1.00
Incremental Delay, d2				9.1	5.0			0.2	1.1		0.3	0.2
Delay (s)				40.2	35.2			6.3	1.1		6.3	0.2
Level of Service				D	D			A	A		A	A
Approach Delay (s)		0.0			37.8			4.2			5.3	
Approach LOS		A			D			A			A	

Intersection Summary

HCM Average Control Delay	9.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.85	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1441	1504					5085	1583		5085	1583
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1441	1504					5085	1583		5085	1583
Volume (vph)	220	0	660	0	0	0	0	1559	529	0	1265	110
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	250	0	750	0	0	0	0	1772	601	0	1438	125
RTOR Reduction (vph)	0	11	11	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	250	364	364	0	0	0	0	1772	601	0	1438	125
Turn Type	Split		Perm						Free			Free
Protected Phases	4	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	27.9	27.9	27.9					54.1	90.0		54.1	90.0
Effective Green, g (s)	28.9	28.9	28.9					55.1	90.0		55.1	90.0
Actuated g/C Ratio	0.32	0.32	0.32					0.61	1.00		0.61	1.00
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)	540	463	483					3113	1583		3113	1583
v/s Ratio Prot	0.15	c0.25						c0.35			0.28	
v/s Ratio Perm			0.24						0.38			0.08
v/c Ratio	0.46	0.79	0.75					0.57	0.38		0.46	0.08
Uniform Delay, d1	24.4	27.7	27.4					10.4	0.0		9.4	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		0.73	1.00
Incremental Delay, d2	0.6	8.6	6.6					0.8	0.7		0.4	0.1
Delay (s)	25.0	36.3	33.9					11.1	0.7		7.4	0.1
Level of Service	C	D	C					B	A		A	A
Approach Delay (s)		32.6			0.0			8.5			6.8	
Approach LOS		C			A			A			A	

Intersection Summary

HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3539	1583		3539	1583	1770	3539	1583	3433	3539	1583
Flt Permitted		1.00	1.00		0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		3539	1583		3376	1583	1770	3539	1583	3433	3539	1583
Volume (vph)	0	307	204	1	250	74	150	771	33	35	599	28
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	334	222	1	272	80	163	838	36	38	651	30
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	14	0	0	0
Lane Group Flow (vph)	0	334	222	0	273	80	163	838	22	38	651	30
Turn Type			Free	Perm		Free	Prot		Perm	Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free	8		Free			2			Free
Actuated Green, G (s)		11.4	68.3		11.4	68.3	9.7	41.2	41.2	3.7	35.2	68.3
Effective Green, g (s)		12.4	68.3		12.4	68.3	10.7	42.2	42.2	4.7	36.2	68.3
Actuated g/C Ratio		0.18	1.00		0.18	1.00	0.16	0.62	0.62	0.07	0.53	1.00
Clearance Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		643	1583		613	1583	277	2187	978	236	1876	1583
v/s Ratio Prot		c0.09					c0.09	c0.24		0.01	0.18	
v/s Ratio Perm			0.14		0.08	0.05			0.01			0.02
v/c Ratio		0.52	0.14		0.45	0.05	0.59	0.38	0.02	0.16	0.35	0.02
Uniform Delay, d1		25.3	0.0		24.9	0.0	26.8	6.5	5.1	29.9	9.2	0.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.7	0.2		0.5	0.1	3.2	0.5	0.0	0.3	0.5	0.0
Delay (s)		26.0	0.2		25.4	0.1	29.9	7.0	5.1	30.3	9.8	0.0
Level of Service		C	A		C	A	C	A	A	C	A	A
Approach Delay (s)		15.7			19.7			10.6			10.4	
Approach LOS		B			B			B			B	

Intersection Summary

HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	68.3	Sum of lost time (s)	6.0
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor		1.00	1.00					0.95	1.00	1.00	0.95	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1776	1583					3539	1583	1770	3539	
Flt Permitted		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1776	1583					3539	1583	1770	3539	
Volume (vph)	88	2	701	0	0	0	0	872	583	136	1166	0
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	97	2	770	0	0	0	0	958	641	149	1281	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	247	0	0	0
Lane Group Flow (vph)	0	99	770	0	0	0	0	958	394	149	1281	0
Turn Type	Perm		Free						Perm	Prot		
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Actuated Green, G (s)		8.7	82.3					49.6	49.6	12.0	65.6	
Effective Green, g (s)		9.7	82.3					50.6	50.6	13.0	66.6	
Actuated g/C Ratio		0.12	1.00					0.61	0.61	0.16	0.81	
Clearance Time (s)		4.0						4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0						3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		209	1583					2176	973	280	2864	
v/s Ratio Prot								0.27		0.08	0.36	
v/s Ratio Perm		0.06	c0.49						0.25			
v/c Ratio		0.47	0.49					0.44	0.41	0.53	0.45	
Uniform Delay, d1		33.9	0.0					8.4	8.1	31.9	2.3	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.7	1.1					0.6	1.3	1.9	0.5	
Delay (s)		35.6	1.1					9.0	9.4	33.8	2.9	
Level of Service		D	A					A	A	C	A	
Approach Delay (s)		5.0			0.0			9.2			6.1	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	7.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	82.3	Sum of lost time (s)	0.0
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	3.0				
Lane Util. Factor	1.00	0.95			0.95		0.97	1.00				
Frt	1.00	1.00			0.98		1.00	0.85				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1770	3539			3473		3433	1583				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	1770	3539			3473		3433	1583				
Volume (vph)	341	982	0	0	579	82	96	0	22	0	0	0
Peak-hour factor, PHF	0.88	0.88	0.92	0.92	0.88	0.88	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	388	1116	0	0	658	93	109	0	25	0	0	0
RTOR Reduction (vph)	0	0	0	0	12	0	0	21	0	0	0	0
Lane Group Flow (vph)	388	1116	0	0	739	0	109	4	0	0	0	0
Turn Type	Prot						Perm					
Protected Phases	7	4			8			2				
Permitted Phases							2					
Actuated Green, G (s)	16.9	38.6			17.7		7.5	7.5				
Effective Green, g (s)	17.9	39.6			18.7		8.5	8.5				
Actuated g/C Ratio	0.33	0.73			0.35		0.16	0.16				
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	586	2590			1200		539	249				
v/s Ratio Prot	c0.22	0.32			c0.21			0.00				
v/s Ratio Perm							c0.03					
v/c Ratio	0.66	0.43			0.62		0.20	0.02				
Uniform Delay, d1	15.5	2.8			14.7		19.8	19.3				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	2.8	0.1			0.9		0.2	0.0				
Delay (s)	18.3	3.0			15.7		20.0	19.3				
Level of Service	B	A			B		C	B				
Approach Delay (s)		6.9			15.7			19.9			0.0	
Approach LOS		A			B			B			A	

Intersection Summary

HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	54.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	104	1055	128	16	521	152	164	1	80	299	333	81
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	113	1147	139	17	566	165	178	1	87	325	362	88
RTOR Reduction (vph)	0	0	83	0	0	0	0	0	73	0	0	66
Lane Group Flow (vph)	113	1147	56	17	566	165	178	1	14	325	362	22
Turn Type	Prot		Perm	Prot		Free	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free			2			6
Actuated Green, G (s)	6.9	26.1	26.1	0.6	19.8	67.4	9.0	10.0	10.0	14.7	15.7	15.7
Effective Green, g (s)	7.9	27.1	27.1	1.6	20.8	67.4	10.0	11.0	11.0	15.7	16.7	16.7
Actuated g/C Ratio	0.12	0.40	0.40	0.02	0.31	1.00	0.15	0.16	0.16	0.23	0.25	0.25
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	207	1423	636	42	1092	1583	263	578	258	412	877	392
v/s Ratio Prot	c0.06	c0.32		0.01	0.16		0.10	0.00		c0.18	c0.10	
v/s Ratio Perm			0.04			0.10			0.01			0.01
v/c Ratio	0.55	0.81	0.09	0.40	0.52	0.10	0.68	0.00	0.06	0.79	0.41	0.06
Uniform Delay, d1	28.1	17.8	12.5	32.4	19.2	0.0	27.2	23.6	23.8	24.3	21.2	19.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.9	3.4	0.1	6.3	0.4	0.1	6.7	0.0	0.1	9.7	0.3	0.1
Delay (s)	31.0	21.3	12.5	38.7	19.6	0.1	33.9	23.6	23.9	34.0	21.6	19.4
Level of Service	C	C	B	D	B	A	C	C	C	C	C	B
Approach Delay (s)		21.2			15.7			30.6			26.5	
Approach LOS		C			B			C			C	

Intersection Summary

HCM Average Control Delay	22.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	67.4	Sum of lost time (s)	6.0
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	560	2	24	80	62	0	0	89	27
Peak Hour Factor	0.93	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.93	0.93
Hourly flow rate (vph)	0	0	0	602	2	26	86	67	0	0	96	29

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	630	153	125
Volume Left (vph)	602	86	0
Volume Right (vph)	26	0	29
Hadj (s)	0.20	0.15	-0.11
Departure Headway (s)	4.9	6.0	5.8
Degree Utilization, x	0.86	0.25	0.20
Capacity (veh/h)	717	575	586
Control Delay (s)	30.8	11.0	10.2
Approach Delay (s)	30.8	11.0	10.2
Approach LOS	D	B	B

Intersection Summary			
Delay	24.7		
HCM Level of Service	C		
Intersection Capacity Utilization	53.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	22	1	199	0	0	0	0	115	297	52	606	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.95	0.95	0.95	0.87	0.87	0.87	0.87	0.95
Hourly flow rate (vph)	25	1	229	0	0	0	0	132	341	60	697	0

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total (vph)	255	474	756
Volume Left (vph)	25	0	60
Volume Right (vph)	229	341	0
Hadj (s)	-0.48	-0.40	0.05
Departure Headway (s)	6.1	5.3	5.5
Degree Utilization, x	0.44	0.70	1.16
Capacity (veh/h)	564	662	650
Control Delay (s)	13.8	19.5	108.4
Approach Delay (s)	13.8	19.5	108.4
Approach LOS	B	C	F

Intersection Summary			
Delay	63.8		
HCM Level of Service	F		
Intersection Capacity Utilization	82.6%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				1.00		1.00	0.97	0.95			0.86	1.00
Frt				1.00		0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770		1583	3433	3539			6408	1583
Flt Permitted				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770		1583	3433	3539			6408	1583
Volume (vph)	0	0	0	373	0	195	719	91	0	0	259	272
Peak-hour factor, PHF	0.82	0.82	0.82	0.96	0.82	0.96	0.96	0.96	0.82	0.82	0.96	0.96
Adj. Flow (vph)	0	0	0	389	0	203	749	95	0	0	270	283
RTOR Reduction (vph)	0	0	0	0	0	146	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	389	0	57	749	95	0	0	270	283
Turn Type				custom		custom	Prot					Free
Protected Phases							5	2			6	
Permitted Phases				8		8						Free
Actuated Green, G (s)				21.5		21.5	29.5	50.5			17.0	80.0
Effective Green, g (s)				22.5		22.5	30.5	51.5			18.0	80.0
Actuated g/C Ratio				0.28		0.28	0.38	0.64			0.22	1.00
Clearance Time (s)				4.0		4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				498		445	1309	2278			1442	1583
v/s Ratio Prot							c0.22	0.03			0.04	
v/s Ratio Perm				c0.22		0.04						c0.18
v/c Ratio				0.78		0.13	0.57	0.04			0.19	0.18
Uniform Delay, d1				26.5		21.4	19.6	5.2			25.1	0.0
Progression Factor				1.00		1.00	0.78	0.63			1.00	1.00
Incremental Delay, d2				7.8		0.1	1.8	0.0			0.3	0.2
Delay (s)				34.3		21.6	17.1	3.3			25.4	0.2
Level of Service				C		C	B	A			C	A
Approach Delay (s)		0.0			29.9			15.6			12.5	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	19.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97		1.00					0.86	1.00	0.97	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433		1583					6408	1583	3433	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433		1583					6408	1583	3433	3539	
Volume (vph)	39	0	1081	0	0	0	0	689	204	101	380	0
Peak-hour factor, PHF	0.91	0.84	0.91	0.84	0.84	0.84	0.84	0.91	0.91	0.91	0.91	0.84
Adj. Flow (vph)	43	0	1188	0	0	0	0	757	224	111	418	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	43	0	1188	0	0	0	0	757	224	111	418	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	2.8		80.0					53.2	80.0	12.0	69.2	
Effective Green, g (s)	3.8		80.0					54.2	80.0	13.0	70.2	
Actuated g/C Ratio	0.05		1.00					0.68	1.00	0.16	0.88	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	163		1583					4341	1583	558	3105	
v/s Ratio Prot								0.12		0.03	0.12	
v/s Ratio Perm	0.01		c0.75						0.14			
v/c Ratio	0.26		0.75					0.17	0.14	0.20	0.13	
Uniform Delay, d1	36.8		0.0					4.7	0.0	29.0	0.7	
Progression Factor	1.00		1.00					1.00	1.00	0.74	1.90	
Incremental Delay, d2	0.9		3.3					0.1	0.2	0.2	0.1	
Delay (s)	37.6		3.3					4.8	0.2	21.7	1.4	
Level of Service	D		A					A	A	C	A	
Approach Delay (s)		4.5			0.0			3.8			5.6	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	4.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97	0.95	0.88	0.97	0.91		0.86	0.86	1.00	0.94	0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	2787	3433	4950		1522	4793	1583	4990	3529	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	2787	3433	4950		1522	4793	1583	4990	3529	
Volume (vph)	295	694	779	181	819	177	233	595	140	901	1033	20
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	307	723	811	189	853	184	243	620	146	939	1076	21
RTOR Reduction (vph)	0	0	591	0	38	0	0	0	119	0	1	0
Lane Group Flow (vph)	307	723	220	189	999	0	207	656	27	939	1096	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			
Actuated Green, G (s)	8.4	23.4	23.4	6.0	21.0		15.5	15.5	15.5	29.1	29.1	
Effective Green, g (s)	9.4	24.4	24.4	7.0	22.0		16.5	16.5	16.5	30.1	30.1	
Actuated g/C Ratio	0.10	0.27	0.27	0.08	0.24		0.18	0.18	0.18	0.33	0.33	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	359	959	756	267	1210		279	879	290	1669	1180	
v/s Ratio Prot	c0.09	c0.20		0.06	c0.20		0.14	c0.14		0.19	c0.31	
v/s Ratio Perm			0.08						0.02			
v/c Ratio	0.86	0.75	0.29	0.71	0.83		0.74	0.75	0.09	0.56	0.93	
Uniform Delay, d1	39.6	30.0	26.0	40.5	32.2		34.7	34.8	30.5	24.6	28.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	0.74	0.77	
Incremental Delay, d2	17.7	5.5	1.0	8.3	6.5		10.2	3.5	0.1	0.4	11.1	
Delay (s)	57.3	35.5	26.9	48.8	38.7		44.9	38.3	30.7	18.6	33.4	
Level of Service	E	D	C	D	D		D	D	C	B	C	
Approach Delay (s)		35.4			40.3			38.5			26.5	
Approach LOS		D			D			D			C	

Intersection Summary

HCM Average Control Delay	33.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Volume (vph)	242	977	121	392	1154	368	180	864	305	405	1287	112
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	252	1018	126	408	1202	383	188	900	318	422	1341	117
RTOR Reduction (vph)	0	0	86	0	0	158	0	0	205	0	0	80
Lane Group Flow (vph)	252	1018	40	408	1202	225	188	900	113	422	1341	37
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.7	22.9	22.9	9.0	23.2	23.2	4.0	17.0	17.0	10.0	23.0	23.0
Effective Green, g (s)	9.7	23.9	23.9	10.0	24.2	24.2	5.0	18.0	18.0	11.0	24.0	24.0
Actuated g/C Ratio	0.13	0.32	0.32	0.13	0.32	0.32	0.07	0.24	0.24	0.15	0.32	0.32
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	445	1129	505	458	1643	511	229	1222	380	504	1629	507
v/s Ratio Prot	0.07	c0.29		c0.12	0.24		0.05	0.18		c0.12	c0.26	
v/s Ratio Perm			0.03			0.14			0.07			0.02
v/c Ratio	0.57	0.90	0.08	0.89	0.73	0.44	0.82	0.74	0.30	0.84	0.82	0.07
Uniform Delay, d1	30.6	24.4	17.8	31.9	22.5	20.0	34.5	26.3	23.3	31.1	23.5	17.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.7	10.0	0.1	19.0	1.7	0.6	20.5	4.0	2.0	11.6	4.8	0.3
Delay (s)	32.3	34.4	17.9	51.0	24.2	20.6	55.0	30.2	25.3	42.6	28.3	18.0
Level of Service	C	C	B	D	C	C	D	C	C	D	C	B
Approach Delay (s)		32.5			29.0			32.4			30.9	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	31.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	74.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3446		1770	1863	1583	1770	3511		1770	3516	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3446		1770	1863	1583	1770	3511		1770	3516	
Volume (vph)	78	254	54	88	317	118	48	1102	61	128	1144	51
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	80	262	56	91	327	122	49	1136	63	132	1179	53
RTOR Reduction (vph)	0	24	0	0	0	96	0	5	0	0	4	0
Lane Group Flow (vph)	80	294	0	91	327	26	49	1194	0	132	1228	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	3.8	14.6		3.8	14.6	14.6	2.3	33.3		5.3	36.3	
Effective Green, g (s)	4.8	15.6		4.8	15.6	15.6	3.3	34.3		6.3	37.3	
Actuated g/C Ratio	0.07	0.21		0.07	0.21	0.21	0.05	0.47		0.09	0.51	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	116	736		116	398	338	80	1650		153	1797	
v/s Ratio Prot	0.05	0.09		c0.05	c0.18		0.03	0.34		c0.07	c0.35	
v/s Ratio Perm						0.02						
v/c Ratio	0.69	0.40		0.78	0.82	0.08	0.61	0.72		0.86	0.68	
Uniform Delay, d1	33.4	24.7		33.6	27.4	22.9	34.2	15.5		32.9	13.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	15.7	0.4		28.5	12.8	0.1	13.1	2.8		36.2	2.1	
Delay (s)	49.1	25.0		62.1	40.2	23.0	47.3	18.3		69.1	15.5	
Level of Service	D	C		E	D	C	D	B		E	B	
Approach Delay (s)		29.9			40.0			19.5			20.7	
Approach LOS		C			D			B			C	

Intersection Summary

HCM Average Control Delay	24.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	73.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Util. Factor	1.00	1.00	1.00			1.00	0.91		1.00	0.95		
Frt	1.00	1.00	0.85			1.00	0.85		1.00	0.86		
Flt Protected	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1583			1770	4326		1770	3033		
Flt Permitted	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1863	1583			1770	4326		1770	3033		
Volume (vph)	57	159	264	80	49	486	1	221	113	35	567	152
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	58	162	269	82	50	496	1	226	115	36	579	155
RTOR Reduction (vph)	0	0	8	0	0	0	180	0	0	15	0	0
Lane Group Flow (vph)	58	162	343	0	0	546	47	0	115	755	0	0
Turn Type	Split		Perm		Split	Split			Split			
Protected Phases	4	4			8	8	8		2	2		
Permitted Phases			4									
Actuated Green, G (s)	23.0	23.0	23.0			30.0	30.0		28.0	28.0		
Effective Green, g (s)	24.0	24.0	24.0			31.0	31.0		29.0	29.0		
Actuated g/C Ratio	0.16	0.16	0.16			0.21	0.21		0.19	0.19		
Clearance Time (s)	4.0	4.0	4.0			4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	283	298	253			366	894		342	586		
v/s Ratio Prot	0.03	0.09				c0.31	0.01		0.06	c0.25		
v/s Ratio Perm			c0.22									
v/c Ratio	0.20	0.54	1.36			1.49	0.05		0.34	2.29dr		
Uniform Delay, d1	54.7	58.0	63.0			59.5	47.7		52.2	60.5		
Progression Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.4	2.0	184.4			235.3	0.0		0.6	142.6		
Delay (s)	55.1	60.0	247.4			294.8	47.7		52.8	203.1		
Level of Service	E	E	F			F	D		D	F		
Approach Delay (s)		174.7					222.3			183.6		
Approach LOS		F					F			F		

Intersection Summary

HCM Average Control Delay	178.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.38		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	118.2%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

Movement	SBL2	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	
Lane Util. Factor		0.86	0.86		1.00	1.00	0.88	
Frt		1.00	0.99		1.00	1.00	0.85	
Flt Protected		0.95	0.97		0.95	0.95	1.00	
Satd. Flow (prot)		1522	4656		1770	1770	2787	
Flt Permitted		0.95	0.97		0.95	0.95	1.00	
Satd. Flow (perm)		1522	4656		1770	1770	2787	
Volume (vph)	73	810	359	29	11	287	407	72
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	74	827	366	30	11	293	415	73
RTOR Reduction (vph)	0	0	2	0	0	0	9	0
Lane Group Flow (vph)	0	451	844	0	11	293	479	0
Turn Type	Split		Prot		Prot	Prot		
Protected Phases	6	6	6		1	1		
Permitted Phases							1	
Actuated Green, G (s)		29.0	29.0		20.0	20.0	20.0	
Effective Green, g (s)		30.0	30.0		21.0	21.0	21.0	
Actuated g/C Ratio		0.20	0.20		0.14	0.14	0.14	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		304	931		248	248	390	
v/s Ratio Prot		c0.30	0.18		0.01	0.17		
v/s Ratio Perm							c0.17	
v/c Ratio		1.48	1.33dl		0.04	1.18	1.23	
Uniform Delay, d1		60.0	58.6		55.8	64.5	64.5	
Progression Factor		1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2		234.5	12.2		0.1	115.2	123.8	
Delay (s)		294.5	70.8		55.9	179.7	188.3	
Level of Service		F	E		E	F	F	
Approach Delay (s)			148.6			183.3		
Approach LOS			F			F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	710	0	162	0	1200	261	0	1245	275
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	826	0	188	0	1395	303	0	1448	320
RTOR Reduction (vph)	0	0	0	0	0	25	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	826	0	163	0	1395	303	0	1448	320
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				27.2		27.2		54.8	90.0		54.8	90.0
Effective Green, g (s)				28.2		28.2		55.8	90.0		55.8	90.0
Actuated g/C Ratio				0.31		0.31		0.62	1.00		0.62	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1076		496		3153	1583		2194	1583
v/s Ratio Prot				c0.24		0.10		0.27			c0.41	
v/s Ratio Perm									0.19			0.20
v/c Ratio				0.77		0.33		0.44	0.19		0.66	0.20
Uniform Delay, d1				27.9		23.6		9.0	0.0		11.0	0.0
Progression Factor				1.00		1.00		0.59	1.00		1.00	1.00
Incremental Delay, d2				3.3		0.4		0.4	0.2		1.6	0.3
Delay (s)				31.3		24.0		5.6	0.2		12.6	0.3
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			29.9			4.7			10.4	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	61.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.90						1.00	0.85		0.99	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1561						3539	1583		5011	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1561						3539	1583		5011	
Volume (vph)	288	0	143	0	0	0	0	1260	701	0	1841	199
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	306	0	152	0	0	0	0	1340	746	0	1959	212
RTOR Reduction (vph)	0	8	0	0	0	0	0	0	0	0	9	0
Lane Group Flow (vph)	240	210	0	0	0	0	0	1340	746	0	2162	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.3	17.3						64.7	90.0		64.7	
Effective Green, g (s)	18.3	18.3						65.7	90.0		65.7	
Actuated g/C Ratio	0.20	0.20						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	342	317						2583	1583		3658	
v/s Ratio Prot	c0.14	0.13						0.38			c0.43	
v/s Ratio Perm									0.47			
v/c Ratio	0.70	0.66						0.52	0.47		0.59	
Uniform Delay, d1	33.3	33.0						5.3	0.0		5.8	
Progression Factor	1.00	1.00						0.78	1.00		0.71	
Incremental Delay, d2	6.4	5.1						0.7	0.9		0.5	
Delay (s)	39.7	38.1						4.8	0.9		4.6	
Level of Service	D	D						A	A		A	
Approach Delay (s)		39.0			0.0			3.4			4.6	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0			3.0	3.0		3.0	3.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.93			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1681	1599			5085	1583		5085	1583
Flt Permitted				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1681	1599			5085	1583		5085	1583
Volume (vph)	0	0	0	580	0	175	0	1504	843	0	1308	465
Peak-hour factor, PHF	0.92	0.92	0.92	0.85	0.92	0.85	0.92	0.85	0.85	0.92	0.85	0.85
Adj. Flow (vph)	0	0	0	682	0	206	0	1769	992	0	1539	547
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	468	416	0	0	1769	992	0	1539	547
Turn Type				Perm					Free			Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				30.0	30.0			52.0	90.0		52.0	90.0
Effective Green, g (s)				31.0	31.0			53.0	90.0		53.0	90.0
Actuated g/C Ratio				0.34	0.34			0.59	1.00		0.59	1.00
Clearance Time (s)				4.0	4.0			4.0			4.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				579	551			2995	1583		2995	1583
v/s Ratio Prot								0.35			0.30	
v/s Ratio Perm				c0.28	0.26				c0.63			0.35
v/c Ratio				0.81	0.76			0.59	0.63		0.51	0.35
Uniform Delay, d1				26.8	26.1			11.7	0.0		10.9	0.0
Progression Factor				1.00	1.00			1.04	1.00		1.00	1.00
Incremental Delay, d2				8.1	5.8			0.6	1.4		0.6	0.6
Delay (s)				34.9	32.0			12.8	1.4		11.5	0.6
Level of Service				C	C			B	A		B	A
Approach Delay (s)		0.0			33.5			8.7			8.7	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.85	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1442	1504					5085	1583		5085	1583
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1442	1504					5085	1583		5085	1583
Volume (vph)	392	0	910	0	0	0	0	1961	396	0	1811	142
Peak-hour factor, PHF	0.94	0.94	0.94	0.88	0.92	0.92	0.92	0.94	0.94	0.88	0.94	0.94
Adj. Flow (vph)	417	0	968	0	0	0	0	2086	421	0	1927	151
RTOR Reduction (vph)	0	3	3	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	414	484	481	0	0	0	0	2086	421	0	1927	151
Turn Type	Split		Perm						Free			Free
Protected Phases	4	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	34.4	34.4	34.4					47.6	90.0		47.6	90.0
Effective Green, g (s)	35.4	35.4	35.4					48.6	90.0		48.6	90.0
Actuated g/C Ratio	0.39	0.39	0.39					0.54	1.00		0.54	1.00
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)	661	567	592					2746	1583		2746	1583
v/s Ratio Prot	0.25	c0.34						c0.41			0.38	
v/s Ratio Perm			0.32						0.27			0.10
v/c Ratio	0.63	0.85	0.81					0.76	0.27		0.70	0.10
Uniform Delay, d1	22.0	24.9	24.3					16.1	0.0		15.3	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		0.71	1.00
Incremental Delay, d2	1.9	11.9	8.3					2.0	0.4		1.2	0.1
Delay (s)	23.8	36.8	32.7					18.2	0.4		12.2	0.1
Level of Service	C	D	C					B	A		B	A
Approach Delay (s)		31.5			0.0			15.2			11.3	
Approach LOS		C			A			B			B	

Intersection Summary

HCM Average Control Delay	17.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3539	1583		3539	1583	1770	3539	1583	3433	3539	1583
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		3539	1583		3539	1583	1770	3539	1583	3433	3539	1583
Volume (vph)	0	201	322	0	729	84	149	752	23	58	1025	48
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	218	350	0	792	91	162	817	25	63	1114	52
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	11	0	0	0
Lane Group Flow (vph)	0	218	350	0	792	91	162	817	14	63	1114	52
Turn Type			Free			Free	Prot		Perm	Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Actuated Green, G (s)		19.7	72.7		19.7	72.7	8.2	38.7	38.7	2.3	32.8	72.7
Effective Green, g (s)		20.7	72.7		20.7	72.7	9.2	39.7	39.7	3.3	33.8	72.7
Actuated g/C Ratio		0.28	1.00		0.28	1.00	0.13	0.55	0.55	0.05	0.46	1.00
Clearance Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1008	1583		1008	1583	224	1933	864	156	1645	1583
v/s Ratio Prot		0.06			c0.22		c0.09	0.23		0.02	c0.31	
v/s Ratio Perm			0.22			0.06			0.01			0.03
v/c Ratio		0.22	0.22		0.79	0.06	0.72	0.42	0.02	0.40	0.68	0.03
Uniform Delay, d1		19.8	0.0		24.0	0.0	30.5	9.7	7.6	33.7	15.2	0.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.1	0.3		4.1	0.1	11.0	0.7	0.0	1.7	2.3	0.0
Delay (s)		19.9	0.3		28.1	0.1	41.5	10.4	7.6	35.5	17.5	0.0
Level of Service		B	A		C	A	D	B	A	D	B	A
Approach Delay (s)		7.8			25.2			15.4			17.6	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	72.7	Sum of lost time (s)	9.0
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor		1.00	1.00					0.95	1.00	1.00	0.95	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1770	1583					3539	1583	1770	3539	
Flt Permitted		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1770	1583					3539	1583	1770	3539	
Volume (vph)	124	0	457	0	0	0	0	1387	608	225	1289	0
Peak-hour factor, PHF	0.91	0.96	0.96	0.25	0.91	0.91	0.91	0.96	0.96	0.96	0.96	0.91
Adj. Flow (vph)	136	0	476	0	0	0	0	1445	633	234	1343	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	275	0	0	0
Lane Group Flow (vph)	0	136	476	0	0	0	0	1445	358	234	1343	0
Turn Type	Perm		Free						Perm	Prot		
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Actuated Green, G (s)		11.7	86.4					47.9	47.9	14.8	66.7	
Effective Green, g (s)		12.7	86.4					48.9	48.9	15.8	67.7	
Actuated g/C Ratio		0.15	1.00					0.57	0.57	0.18	0.78	
Clearance Time (s)		4.0						4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0						3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		260	1583					2003	896	324	2773	
v/s Ratio Prot								c0.41		c0.13	0.38	
v/s Ratio Perm		0.08	0.30						0.23			
v/c Ratio		0.52	0.30					0.72	0.40	0.72	0.48	
Uniform Delay, d1		34.1	0.0					13.8	10.5	33.2	3.3	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.9	0.5					2.3	1.3	7.7	0.6	
Delay (s)		35.9	0.5					16.0	11.9	41.0	3.9	
Level of Service		D	A					B	B	D	A	
Approach Delay (s)		8.4			0.0			14.8			9.4	
Approach LOS		A			A			B			A	

Intersection Summary

HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	86.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	67.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	3.0				
Lane Util. Factor	1.00	0.95			0.95		0.97	1.00				
Frt	1.00	1.00			0.98		1.00	0.85				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1770	3539			3475		3433	1583				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	1770	3539			3475		3433	1583				
Volume (vph)	209	630	0	0	1336	182	402	0	15	0	0	0
Peak-hour factor, PHF	0.94	0.94	0.92	0.92	0.94	0.94	0.94	0.88	0.94	0.92	0.92	0.92
Adj. Flow (vph)	222	670	0	0	1421	194	428	0	16	0	0	0
RTOR Reduction (vph)	0	0	0	0	14	0	0	12	0	0	0	0
Lane Group Flow (vph)	222	670	0	0	1601	0	428	4	0	0	0	0
Turn Type	Prot						Perm					
Protected Phases	7	4			8			2				
Permitted Phases							2					
Actuated Green, G (s)	10.0	49.9			35.9		17.0	17.0				
Effective Green, g (s)	11.0	50.9			36.9		18.0	18.0				
Actuated g/C Ratio	0.15	0.68			0.49		0.24	0.24				
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	260	2405			1712		825	380				
v/s Ratio Prot	c0.13	0.19			c0.46			0.00				
v/s Ratio Perm							c0.12					
v/c Ratio	0.85	0.28			0.94		0.52	0.01				
Uniform Delay, d1	31.2	4.7			17.9		24.7	21.7				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	22.8	0.1			10.0		2.3	0.0				
Delay (s)	54.0	4.8			27.9		27.0	21.7				
Level of Service	D	A			C		C	C				
Approach Delay (s)		17.0			27.9			26.8			0.0	
Approach LOS		B			C			C			A	

Intersection Summary

HCM Average Control Delay	24.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	74.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	75.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	68	516	561	11	1076	697	439	5	69	161	148	110
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	74	561	610	12	1170	758	477	5	75	175	161	120
RTOR Reduction (vph)	0	0	355	0	0	0	0	0	56	0	0	106
Lane Group Flow (vph)	74	561	255	12	1170	758	477	5	19	175	161	14
Turn Type	Prot		Perm	Prot		Free	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free			2			6
Actuated Green, G (s)	3.1	33.8	33.8	0.8	31.5	83.1	23.6	20.3	20.3	12.2	8.9	8.9
Effective Green, g (s)	4.1	34.8	34.8	1.8	32.5	83.1	24.6	21.3	21.3	13.2	9.9	9.9
Actuated g/C Ratio	0.05	0.42	0.42	0.02	0.39	1.00	0.30	0.26	0.26	0.16	0.12	0.12
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	87	1482	663	38	1384	1583	524	907	406	281	422	189
v/s Ratio Prot	0.04	0.16		0.01	c0.33		c0.27	0.00		0.10	0.05	
v/s Ratio Perm			0.16			c0.48			0.01			0.01
v/c Ratio	0.85	0.38	0.39	0.32	0.85	0.48	0.91	0.01	0.05	0.62	0.38	0.08
Uniform Delay, d1	39.2	16.7	16.7	40.0	23.0	0.0	28.2	23.0	23.3	32.6	33.8	32.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	50.9	0.2	0.4	4.7	4.9	1.0	20.0	0.0	0.0	4.3	0.6	0.2
Delay (s)	90.1	16.8	17.1	44.8	28.0	1.0	48.2	23.0	23.3	36.9	34.4	32.7
Level of Service	F	B	B	D	C	A	D	C	C	D	C	C
Approach Delay (s)		21.3			17.5			44.6			34.9	
Approach LOS		C			B			D			C	

Intersection Summary

HCM Average Control Delay	24.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	83.1	Sum of lost time (s)	6.0
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	314	2	76	307	147	0	0	158	36
Peak Hour Factor	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Hourly flow rate (vph)	0	0	0	327	2	79	320	153	0	0	165	38

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	408	473	202
Volume Left (vph)	327	320	0
Volume Right (vph)	79	0	38
Hadj (s)	0.08	0.17	-0.08
Departure Headway (s)	5.9	5.7	6.0
Degree Utilization, x	0.67	0.75	0.33
Capacity (veh/h)	584	607	558
Control Delay (s)	20.0	24.2	11.9
Approach Delay (s)	20.0	24.2	11.9
Approach LOS	C	C	B

Intersection Summary			
Delay	20.3		
HCM Level of Service	C		
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	43	0	106	0	0	0	0	468	576	48	384	0
Peak Hour Factor	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Hourly flow rate (vph)	48	0	118	0	0	0	0	520	640	53	427	0

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total (vph)	166	1160	480
Volume Left (vph)	48	0	53
Volume Right (vph)	118	640	0
Hadj (s)	-0.34	-0.30	0.06
Departure Headway (s)	6.3	4.8	5.4
Degree Utilization, x	0.29	1.56	0.72
Capacity (veh/h)	543	748	651
Control Delay (s)	11.9	273.9	21.1
Approach Delay (s)	11.9	273.9	21.1
Approach LOS	B	F	C

Intersection Summary			
Delay	182.7		
HCM Level of Service	F		
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		

20. Ventura & Gonzales

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	153	.10	190	.12*
NBT	2	3200	517	.16*	659	.21
NBR	1	1600	344	.22	418	.26
SBL	1	1600	93	.06*	92	.06
SBT	3	4800	455	.11	936	.21*
SBR	0	0	60		71	
EBL	1	1600	123	.08	116	.07
EBT	2	3200	477	.15*	460	.14*
EBR	1	1600	47	.03	117	.07
WBL	2	3200	215	.07*	581	.18*
WBT	2	3200	353	.12	574	.21
WBR	0	0	31		89	
Right Turn Adjustment			NBR	.01*		
TOTAL CAPACITY UTILIZATION				**.45**		**.65**

24. Ventura & Wooley

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	73	.05	76	.05
NBT	2	3200	1044	.35*	1120	.37*
NBR	0	0	84		75	
SBL	1	1600	112	.07*	140	.09*
SBT	2	3200	832	.29	1158	.41
SBR	0	0	81		151	
EBL	1	1600	210	.13	146	.09*
EBT	2	3200	731	.23*	446	.14
EBR	1	1600	43	.03	89	.06
WBL	1	1600	92	.06*	236	.15
WBT	2	3200	349	.11	772	.24*
WBR	1	1600	181	.11	233	.15
TOTAL CAPACITY UTILIZATION				**.71**		**.79**

45. Oxnard & Vineyard

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	83	.03*	296	.09*
NBT	2	3200	562	.18	763	.24
NBR	2	3200	780	.24	780	.24
SBL	2	3200	104	.03	187	.06
SBT	3	4800	811	.19*	833	.21*
SBR	0	0	98		177	
EBL	1.5		260	.16	233	
EBT	2.5	6400	1173	.24*	597	.13*
EBR	1	1600	175	.11	140	.09
WBL	3	4800	594	.12	901	.19
WBT	2	3200	442	.14*	1036	.33*
WBR	0	0	17		22	
Note: Assumes E/W Split Phasing						
TOTAL CAPACITY UTILIZATION				**.60**		**.76**

46. Oxnard & Gonzales

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	93	.03	181	.06*
NBT	3	4800	734	.15*	873	.18
NBR	1	1600	405	.25	317	.20
SBL	2	3200	514	.16*	424	.13
SBT	3	4800	962	.20	1287	.27*
SBR	1	1600	61	.04	112	.07
EBL	2	3200	223	.07	242	.08
EBT	2	3200	1285	.40*	1090	.34*
EBR	1	1600	63	.04	121	.08
WBL	2	3200	275	.09*	404	.13*
WBT	3	4800	810	.17	1421	.30
WBR	1	1600	356	.22	444	.28
Right Turn Adjustment			NBR	.03*		
TOTAL CAPACITY UTILIZATION				**.83**		**.80**

49. Oxnard & 5th St

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	23	.01	48	.03
NBT	2	3200	857	.32*	1103	.37*
NBR	0	0	181		72	
SBL	1	1600	124	.08*	129	.08*
SBT	2	3200	877	.28	1150	.38
SBR	0	0	32		51	
EBL	1	1600	29	.02	78	.05*
EBT	2	3200	394	.13*	266	.10
EBR	0	0	8		54	
WBL	1	1600	36	.02*	95	.06
WBT	1	1600	147	.09	384	.24*
WBR	1	1600	56	.04	122	.08
TOTAL CAPACITY UTILIZATION				**.55**		**.74**

61. Rose & Auto Center

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	102	.06	155	.10
NBT	2	3200	635	.20*	881	.28*
NBR	1	1600	444	.28	806	.50
SBL	1	1600	235	.15*	176	.11*
SBT	2	3200	854	.27	645	.21
SBR	0	0	25		12	
EBL	1	1600	43	.03	9	.01
EBT	1	1600	106	.07*	64	.04*
EBR	1	1600	100	.06	178	.11
WBL	2.5		179		930	
WBT	0.5	4800	27	.04*	100	.21*
WBR	1	1600	92	.06	248	.16
Right Turn Adjustment			NBR	.04*	NBR	.01*
TOTAL CAPACITY UTILIZATION				**.50**		**.65**

Note: Assumes E/W Split Phasing
Note: Assumes Right-Turn Overlap for NBR

65. Rose & Gonzales

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	266	.08	397	.12*
NBT	3	4800	1127	.23*	1204	.25
NBR	1	1600	275	.17	113	.07
SBL	2	3200	346	.11*	313	.10
SBT	3	4800	1033	.22	1477	.31*
SBR	1	1600	296	.19	616	.39
EBL	2	3200	707	.22	591	.18*
EBT	3	4800	1682	.35*	821	.17
EBR	1	1600	244	.15	197	.12
WBL	1	1600	81	.05*	176	.11
WBT	3	4800	470	.10	1587	.33*
WBR	1	1600	138	.09	355	.22
TOTAL CAPACITY UTILIZATION				**.74**		**.94**

66. Rose & Camino del Sol

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	127	.08	97	.06
NBT	2	3200	1185	.37*	1268	.40*
NBR	1	1600	339	.21	176	.11
SBL	1	1600	201	.13*	139	.09*
SBT	2	3200	1197	.37	1249	.39
SBR	f		77		280	
EBL	1	1600	192	.12	133	.08*
EBT	2	3200	555	.22*	215	.10
EBR	0	0	133		95	
WBL	1	1600	169	.11*	309	.19
WBT	2	3200	184	.06	802	.25*
WBR	1	1600	93	.06	295	.18
TOTAL CAPACITY UTILIZATION				**.83**		**.82**

68. Rose & 5th

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	17	.01	20	.01*
NBT	3	4800	1210	.29*	1222	.27
NBR	0	0	185		64	
SBL	1	1600	42	.03*	31	.02
SBT	3	4800	1164	.27	1269	.31*
SBR	0	0	148		212	
EBL	2	3200	232	.07	335	.10
EBT	1	1600	658	.41*	361	.23*
EBR	1	1600	31	.02	40	.03
WBL	1	1600	136	.09*	283	.18*
WBT	2	3200	286	.10	734	.25
WBR	0	0	26		76	
TOTAL CAPACITY UTILIZATION				**.82**		**.73**

69. Rose & Wooley

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	32	.02	33	.02*
NBT	2	3200	1053	.33*	851	.27
NBR	1	1600	120	.08	87	.05
SBL	1	1600	22	.01*	9	.01
SBT	2	3200	1002	.31	1270	.40*
SBR	f		393		468	
EBL	2	3200	338	.11	335	.10*
EBT	2	3200	482	.16*	284	.11
EBR	0	0	34		59	
WBL	1	1600	83	.05*	168	.11
WBT	2	3200	189	.07	549	.18*
WBR	0	0	19		29	
TOTAL CAPACITY UTILIZATION				**.55**		**.70**

71. Rose & Oxnard

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	150	.09*	149	.09*
NBT	2	3200	788	.25	753	.24
NBR	1	1600	33	.02	23	.01
SBL	2	3200	35	.01	58	.02
SBT	2	3200	599	.19*	1042	.33*
SBR	f		28		48	
EBL	0	0	0		0	
EBT	2	3200	331	.10*	208	.07
EBR	f		204		322	
WBL	0	0	1		0	
WBT	2	3200	250	.08	744	.23*
WBR	f		75		84	
TOTAL CAPACITY UTILIZATION				**.38**		**.65**

72. Rose & Channel Islands

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	149	.05	262	.08
NBT	2	3200	651	.20*	54	.02*
NBR	1	1600	218	.14	25	.02
SBL	1	1600	108	.07*	195	.12*
SBT	3	4800	527	.14	108	.03
SBR	0	0	137		340	.21
EBL	2	3200	375	.12	460	.14*
EBT	2	3200	892	.28*	462	.14
EBR	1	1600	190	.12	186	.12
WBL	2	3200	160	.05*	349	.11
WBT	2	3200	330	.10	971	.30*
WBR	1	1600	4	.00	8	.01
Right Turn Adjustment					SBR	.04*
TOTAL CAPACITY UTILIZATION				**.60**		**.62**

73. Rose & Bard

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	29	.02	47	.03*
NBT	2	3200	655	.20*	309	.10
NBR	1	1600	20	.01	18	.01
SBL	1	1600	197	.12*	70	.04
SBT	2	3200	378	.12	533	.17*
SBR	1	1600	155	.10	342	.21
EBL	1	1600	299	.19*	173	.11*
EBT	2	3200	222	.08	146	.06
EBR	0	0	29		42	
WBL	1	1600	7	.00	14	.01
WBT	2	3200	122	.08*	364	.16*
WBR	0	0	173	.11	142	
TOTAL CAPACITY UTILIZATION				**.59**		**.47**

74. Rose & Pleasant Valley

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03	65	.04
NBT	2	3200	84	.03*	75	.02*
NBR	1	1600	59	.04	43	.03
SBL	1	1600	145	.09*	145	.09*
SBT	2	3200	60	.02	176	.06
SBR	1	1600	163	.10	270	.17
EBL	1	1600	267	.17*	233	.15*
EBT	2	3200	740	.23	420	.13
EBR	1	1600	25	.02	22	.01
WBL	1	1600	33	.02	78	.05
WBT	2	3200	489	.15*	734	.23*
WBR	1	1600	113	.07	136	.09
TOTAL CAPACITY UTILIZATION				**.44**		**.49**

77. Dupont & Channel Islands

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	2		2	
NBT	1	1600	50	.03	107	.07
NBR	1	1600	375	.23	324	.20
SBL	1	1600	129	.08	57	.04
SBT	1	1600	128	.11*	166	.13*
SBR	0	0	50		43	
EBL	1	1600	12	.01	50	.03
EBT	1	1600	413	.26*	151	.09*
EBR	1	1600	28	.02	243	.15
WBL	1	1600	251	.16*	635	.40*
WBT	2	3200	162	.05	463	.14
WBR	1	1600	48	.03	185	.12
Right Turn Adjustment			NBR	.08*	EBR	.06*
TOTAL CAPACITY UTILIZATION				**.61**		**.68**

78. Bard & Pleasant Valley

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1600	0	.01*	0	.01*
NBR	0	0	13		16	
SBL	1.5		307		183	
SBT	0.5	3200	2	.10*	11	.06*
SBR	1	1600	12	.01	21	.01
EBL	1	1600	50	.03	42	.03*
EBT	2	3200	1056	.33*	553	.17
EBR	0	0	5		0	
WBL	1	1600	15	.01*	39	.02
WBT	2	3200	595	.30	1021	.50*
WBR	0	0	375		565	
Note: Assumes N/S Split Phasing						
TOTAL CAPACITY UTILIZATION				**.45**		**.60**

82. Rice & Camino Del Sol

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	102	.06	211	.13*
NBT	3	4800	1847	.38*	1519	.32
NBR	1	1600	104	.07	40	.03
SBL	1	1600	208	.13*	72	.05
SBT	3	4800	1320	.28	2069	.43*
SBR	d	1600	162	.10	621	.39
EBL	1	1600	450	.28*	156	.10*
EBT	2	3200	371	.12	198	.06
EBR	1	1600	74	.05	60	.04
WBL	1	1600	44	.03	87	.05
WBT	2	3200	139	.04*	460	.14*
WBR	1	1600	99	.06	193	.12

TOTAL CAPACITY UTILIZATION .83 .80

84. Rice & Fifth

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	14	.01	29	.02*
NBT	2	3200	2080	.65*	1326	.41
NBR	1	1600	328	.21	233	.15
SBL	1	1600	21	.01*	20	.01
SBT	2	3200	1084	.34	2167	.68*
SBR	1	1600	100	.06	229	.14
EBL	1	1600	202	.13	109	.07
EBT	2	3200	541	.17*	310	.10*
EBR	0	0	18		12	
WBL	1	1600	147	.09*	442	.28*
WBT	2	3200	258	.09	574	.19
WBR	0	0	19		43	

TOTAL CAPACITY UTILIZATION .92 1.08

85. Rice & Wooley

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	25	.02	85	.05*
NBT	2	3200	1942	.61*	1281	.40
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1041	.33	2062	.64*
SBR	1	1600	258	.16	609	.38
EBL	2	3200	625	.20*	423	.13*
EBT	0	0	0		0	
EBR	1	1600	33	.02	13	.01
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .81 .82

86. Rice & Channel Islands

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	82	.05*	350	.22*
NBT	2	3200	921	.29	1068	.33
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	786	.25*	1209	.38*
SBR	d	1600	239	.15	1020	.64
EBL	2	3200	916	.29*	278	.09*
EBT	0	0	0		0	
EBR	1	1600	123	.08	22	.01
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					SBR	.19*

TOTAL CAPACITY UTILIZATION .59 .88

87. SR-1/Rice NB & Pleasant Vly

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	97	.03*	404	.13*
NBT	1	1600	4	.02	10	.02
NBR	0	0	26		15	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	440	.28*	264	.17*
EBT	2	3200	983	.31	636	.20
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	580	.21*	1343	.48*
WBR	0	0	89		183	

TOTAL CAPACITY UTILIZATION .52 .78

88. Oxnard & Pleasant Valley

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	229	.14*	590	.37*
NBT	2	3200	1	.00	9	.00
NBR	1	1600	81	.05	74	.05
SBL	1	1600	299	.19	161	.10
SBT	2	3200	333	.10*	148	.05*
SBR	1	1600	81	.05	112	.07
EBL	1	1600	104	.07	68	.04*
EBT	2	3200	1154	.36*	572	.18
EBR	1	1600	192	.12	566	.35
WBL	1	1600	16	.01*	14	.01
WBT	2	3200	522	.16	1081	.34*
WBR	f		152		697	

TOTAL CAPACITY UTILIZATION .61 .80

89. Rice & Hueneme

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	45	.03*	20	.01*
SBT	0	0	0		0	
SBR	f		168		280	
EBL	2	3200	264	.08*	202	.06*
EBT	1	1600	440	.28	445	.28
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	354	.22*	698	.44*
WBR	f		31		105	

TOTAL CAPACITY UTILIZATION .33 .51

92. Del Norte & Camino Del Sol

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03	175	.11*
NBT	2	3200	792	.25*	615	.19
NBR	d	1600	10	.01	5	.00
SBL	1	1600	48	.03*	40	.03
SBT	2	3200	505	.16	815	.25*
SBR	1	1600	194	.12	385	.24
EBL	1	1600	467	.29*	302	.19*
EBT	1	1600	15	.01	10	.01
EBR	1	1600	102	.06	46	.03
WBL	0	0	10		22	
WBT	1	1600	7	.02*	21	.04*
WBR	0	0	8		17	

TOTAL CAPACITY UTILIZATION .59 .59

94. Del Norte & 5th St

Existing Plus Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	83	.05*	192	.12*
SBT	0	0	0		0	
SBR	1	1600	206	.13	397	.25
EBL	1	1600	392	.25*	128	.08*
EBT	1	1600	653	.41	378	.24
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	232	.26*	707	.51*
WBR	0	0	180		102	
Right Turn Adjustment					SBR	.07*
TOTAL CAPACITY UTILIZATION				**.56**		**.78**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				1.00		1.00	0.97	0.95			0.86	1.00
Frt				1.00		0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770		1583	3433	3539			6408	1583
Flt Permitted				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770		1583	3433	3539			6408	1583
Volume (vph)	0	0	0	136	0	178	623	123	0	0	163	450
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	0	0	0	166	0	217	760	150	0	0	199	549
RTOR Reduction (vph)	0	0	0	0	0	182	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	166	0	35	760	150	0	0	199	549
Turn Type				custom		custom	Prot					Free
Protected Phases							5	2			6	
Permitted Phases				8		8						Free
Actuated Green, G (s)				13.4		13.4	32.1	68.6			32.5	90.0
Effective Green, g (s)				14.4		14.4	33.1	69.6			33.5	90.0
Actuated g/C Ratio				0.16		0.16	0.37	0.77			0.37	1.00
Clearance Time (s)				4.0		4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				283		253	1263	2737			2385	1583
v/s Ratio Prot							c0.22	0.04			0.03	
v/s Ratio Perm				c0.09		0.02						c0.35
v/c Ratio				0.59		0.14	0.60	0.05			0.08	0.35
Uniform Delay, d1				35.0		32.5	23.1	2.4			18.3	0.0
Progression Factor				1.00		1.00	0.88	0.84			1.00	1.00
Incremental Delay, d2				3.1		0.2	0.8	0.0			0.1	0.6
Delay (s)				38.1		32.7	21.1	2.1			18.4	0.6
Level of Service				D		C	C	A			B	A
Approach Delay (s)		0.0			35.1			18.0			5.3	
Approach LOS		A			D			B			A	

Intersection Summary			
HCM Average Control Delay	16.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97		1.00					0.86	1.00	0.97	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433		1583					6408	1583	3433	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433		1583					6408	1583	3433	3539	
Volume (vph)	62	0	720	0	0	0	0	701	143	117	180	0
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	74	0	857	0	0	0	0	835	170	139	214	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	74	0	857	0	0	0	0	835	170	139	214	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	6.0		90.0					64.1	90.0	7.9	76.0	
Effective Green, g (s)	7.0		90.0					65.1	90.0	8.9	77.0	
Actuated g/C Ratio	0.08		1.00					0.72	1.00	0.10	0.86	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	267		1583					4635	1583	339	3028	
v/s Ratio Prot								0.13		0.04	0.06	
v/s Ratio Perm	0.02		c0.54						0.11			
v/c Ratio	0.28		0.54					0.18	0.11	0.41	0.07	
Uniform Delay, d1	39.1		0.0					4.0	0.0	38.1	1.0	
Progression Factor	1.00		1.00					1.00	1.00	0.57	1.11	
Incremental Delay, d2	0.6		1.3					0.1	0.1	0.8	0.0	
Delay (s)	39.7		1.3					4.0	0.1	22.4	1.2	
Level of Service	D		A					A	A	C	A	
Approach Delay (s)		4.4			0.0			3.4			9.5	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	4.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	34.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97	0.95	0.88	0.97	0.91		0.86	0.86	1.00	0.94	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	2787	3433	5003		1522	4806	1583	4990	3519	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	2787	3433	5003		1522	4806	1583	4990	3519	
Volume (vph)	83	562	780	104	811	98	260	1173	175	594	442	17
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	91	618	857	114	891	108	286	1289	192	653	486	19
RTOR Reduction (vph)	0	0	518	0	18	0	0	0	83	0	3	0
Lane Group Flow (vph)	91	618	339	114	981	0	286	1289	109	653	502	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			
Actuated Green, G (s)	3.1	19.2	19.2	3.1	19.2		23.9	23.9	23.9	15.0	15.0	
Effective Green, g (s)	4.1	20.2	20.2	4.1	20.2		24.9	24.9	24.9	16.0	16.0	
Actuated g/C Ratio	0.05	0.26	0.26	0.05	0.26		0.32	0.32	0.32	0.21	0.21	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	182	926	729	182	1309		491	1550	511	1034	729	
v/s Ratio Prot	0.03	0.17		c0.03	c0.20		0.19	c0.27		0.13	c0.14	
v/s Ratio Perm			0.12						0.07			
v/c Ratio	0.50	0.67	0.46	0.63	0.75		0.58	0.83	0.21	0.63	0.69	
Uniform Delay, d1	35.6	25.5	24.0	35.8	26.2		21.8	24.2	19.0	27.9	28.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.2	3.8	2.1	6.6	4.0		1.8	4.0	0.2	1.3	2.7	
Delay (s)	37.7	29.3	26.1	42.4	30.1		23.6	28.2	19.2	29.2	31.0	
Level of Service	D	C	C	D	C		C	C	B	C	C	
Approach Delay (s)		28.0			31.4			26.5			30.0	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	28.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	77.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Volume (vph)	223	1285	63	275	810	356	93	734	405	514	962	61
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	235	1353	66	289	853	375	98	773	426	541	1013	64
RTOR Reduction (vph)	0	0	37	0	0	202	0	0	132	0	0	43
Lane Group Flow (vph)	235	1353	29	289	853	173	98	773	294	541	1013	21
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.7	30.0	30.0	6.0	27.3	27.3	3.2	16.0	16.0	12.0	24.8	24.8
Effective Green, g (s)	9.7	31.0	31.0	7.0	28.3	28.3	4.2	17.0	17.0	13.0	25.8	25.8
Actuated g/C Ratio	0.12	0.39	0.39	0.09	0.35	0.35	0.05	0.21	0.21	0.16	0.32	0.32
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	416	1371	613	300	1799	560	180	1081	336	558	1640	511
v/s Ratio Prot	0.07	c0.38		c0.08	0.17		0.03	0.15		c0.16	0.20	
v/s Ratio Perm			0.02			0.11			c0.19			0.01
v/c Ratio	0.56	0.99	0.05	0.96	0.47	0.31	0.54	0.72	0.87	0.97	0.62	0.04
Uniform Delay, d1	33.2	24.3	15.3	36.4	20.1	18.8	37.0	29.3	30.5	33.3	22.9	18.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.8	21.0	0.0	41.8	0.2	0.3	3.3	4.1	25.6	30.1	1.8	0.1
Delay (s)	34.9	45.3	15.3	78.1	20.3	19.1	40.3	33.3	56.1	63.4	24.7	18.8
Level of Service	C	D	B	E	C	B	D	C	E	E	C	B
Approach Delay (s)		42.6			31.0			41.3			37.4	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM Average Control Delay	38.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	85.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.97		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3529		1770	1863	1583	1770	3447		1770	3520	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3529		1770	1863	1583	1770	3447		1770	3520	
Volume (vph)	29	394	8	36	147	56	23	857	181	124	877	32
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	34	464	9	42	173	66	27	1008	213	146	1032	38
RTOR Reduction (vph)	0	2	0	0	0	53	0	20	0	0	3	0
Lane Group Flow (vph)	34	471	0	42	173	13	27	1201	0	146	1067	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	2.2	13.8		2.2	13.8	13.8	1.5	37.0		8.0	43.5	
Effective Green, g (s)	3.2	14.8		3.2	14.8	14.8	2.5	38.0		9.0	44.5	
Actuated g/C Ratio	0.04	0.19		0.04	0.19	0.19	0.03	0.49		0.12	0.58	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	74	678		74	358	304	57	1701		207	2034	
v/s Ratio Prot	0.02	c0.13		c0.02	0.09		0.02	c0.35		c0.08	0.30	
v/s Ratio Perm						0.01						
v/c Ratio	0.46	0.70		0.57	0.48	0.04	0.47	0.71		0.71	0.52	
Uniform Delay, d1	36.1	29.0		36.2	27.7	25.3	36.6	15.2		32.7	9.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.5	3.1		9.6	1.0	0.1	6.1	2.5		10.4	1.0	
Delay (s)	40.5	32.1		45.8	28.7	25.4	42.7	17.7		43.1	10.8	
Level of Service	D	C		D	C	C	D	B		D	B	
Approach Delay (s)		32.7			30.5			18.2			14.7	
Approach LOS		C			C			B			B	

Intersection Summary

HCM Average Control Delay	20.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	77.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	64.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Util. Factor	1.00	1.00	1.00			1.00	0.91		1.00	0.95		
Frt	1.00	1.00	0.85			1.00	0.89		1.00	0.86		
Flt Protected	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1583			1770	4512		1770	3051		
Flt Permitted	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1863	1583			1770	4512		1770	3051		
Volume (vph)	24	374	495	82	17	145	32	98	152	60	562	129
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	28	440	582	96	20	171	38	115	179	71	661	152
RTOR Reduction (vph)	0	0	4	0	0	0	102	0	0	12	0	0
Lane Group Flow (vph)	28	440	674	0	0	191	51	0	179	872	0	0
Turn Type	Split		Perm		Split	Split			Split			
Protected Phases	4	4			8	8	8		2	2		
Permitted Phases			4									
Actuated Green, G (s)	44.0	44.0	44.0			16.0	16.0		31.0	31.0		
Effective Green, g (s)	45.0	45.0	45.0			17.0	17.0		32.0	32.0		
Actuated g/C Ratio	0.30	0.30	0.30			0.11	0.11		0.21	0.21		
Clearance Time (s)	4.0	4.0	4.0			4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	531	559	475			201	511		378	651		
v/s Ratio Prot	0.02	0.24				c0.11	0.01		0.10	c0.29		
v/s Ratio Perm			c0.43									
v/c Ratio	0.05	0.79	1.42			0.95	0.10		0.47	2.32dr		
Uniform Delay, d1	37.3	48.1	52.5			66.1	59.6		51.6	59.0		
Progression Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.0	7.2	200.4			49.2	0.1		0.9	163.1		
Delay (s)	37.4	55.3	252.9			115.3	59.7		52.6	222.1		
Level of Service	D	E	F			F	E		D	F		
Approach Delay (s)		171.8					90.6			193.6		
Approach LOS		F					F			F		

Intersection Summary

HCM Average Control Delay	149.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	95.5%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

Movement	SBL2	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	
Lane Util. Factor		0.86	0.86		1.00	1.00	0.88	
Frt		1.00	0.99		1.00	1.00	0.85	
Flt Protected		0.95	0.98		0.95	0.95	1.00	
Satd. Flow (prot)		1522	4649		1770	1770	2787	
Flt Permitted		0.95	0.98		0.95	0.95	1.00	
Satd. Flow (perm)		1522	4649		1770	1770	2787	
Volume (vph)	42	483	281	43	12	168	199	11
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	49	568	331	51	14	198	234	13
RTOR Reduction (vph)	0	0	6	0	0	0	3	0
Lane Group Flow (vph)	0	309	684	0	14	198	244	0
Turn Type	Split		Prot		Prot	Prot		
Protected Phases	6	6	6		1	1		
Permitted Phases							1	
Actuated Green, G (s)		23.0	23.0		16.0	16.0	16.0	
Effective Green, g (s)		24.0	24.0		17.0	17.0	17.0	
Actuated g/C Ratio		0.16	0.16		0.11	0.11	0.11	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		244	744		201	201	316	
v/s Ratio Prot		c0.20	0.15		0.01	c0.11		
v/s Ratio Perm							0.09	
v/c Ratio		1.27	1.12dl		0.07	0.99	0.77	
Uniform Delay, d1		63.0	62.0		59.4	66.4	64.6	
Progression Factor		1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2		148.2	16.3		0.1	58.7	11.2	
Delay (s)		211.2	78.4		59.6	125.1	75.8	
Level of Service		F	E		E	F	E	
Approach Delay (s)			119.5			96.6		
Approach LOS			F			F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	509	0	242	0	1135	320	0	1313	306
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	566	0	269	0	1261	356	0	1459	340
RTOR Reduction (vph)	0	0	0	0	0	45	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	566	0	224	0	1261	356	0	1459	340
Turn Type				Prot		custom			Free			Free
Protected Phases				3				2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				20.5		20.5		61.5	90.0		61.5	90.0
Effective Green, g (s)				21.5		21.5		62.5	90.0		62.5	90.0
Actuated g/C Ratio				0.24		0.24		0.69	1.00		0.69	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				820		378		3531	1583		2458	1583
v/s Ratio Prot				c0.16				0.25			c0.41	
v/s Ratio Perm						0.14			0.22			0.21
v/c Ratio				0.69		0.59		0.36	0.22		0.59	0.21
Uniform Delay, d1				31.2		30.4		5.6	0.0		7.1	0.0
Progression Factor				1.00		1.00		0.63	1.00		1.00	1.00
Incremental Delay, d2				2.5		2.5		0.2	0.3		1.1	0.3
Delay (s)				33.7		32.9		3.8	0.3		8.2	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			33.5			3.0			6.7	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	10.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.87						1.00	0.85		0.96	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1533						3539	1583		4905	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1533						3539	1583		4905	
Volume (vph)	250	0	171	0	0	0	0	1196	881	0	1397	433
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	287	0	197	0	0	0	0	1375	1013	0	1606	498
RTOR Reduction (vph)	0	21	0	0	0	0	0	0	0	0	42	0
Lane Group Flow (vph)	251	212	0	0	0	0	0	1375	1013	0	2062	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.9	17.9						64.1	90.0		64.1	
Effective Green, g (s)	18.9	18.9						65.1	90.0		65.1	
Actuated g/C Ratio	0.21	0.21						0.72	1.00		0.72	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	353	322						2560	1583		3548	
v/s Ratio Prot	0.15	0.14						0.39			0.42	
v/s Ratio Perm									c0.64			
v/c Ratio	0.71	0.66						0.54	0.64		0.58	
Uniform Delay, d1	33.0	32.6						5.6	0.0		5.9	
Progression Factor	1.00	1.00						1.00	1.00		0.75	
Incremental Delay, d2	6.6	4.8						0.8	2.0		0.6	
Delay (s)	39.6	37.4						6.4	2.0		5.0	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.5			0.0			4.6			5.0	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	8.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	55.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0			3.0	3.0		3.0	3.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.92			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1681	1595			5085	1583		5085	1583
Flt Permitted				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1681	1595			5085	1583		5085	1583
Volume (vph)	0	0	0	433	0	140	0	1033	702	0	1063	194
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.92	0.84	0.92	0.84	0.84	0.92	0.84	0.84
Adj. Flow (vph)	0	0	0	515	0	167	0	1230	836	0	1265	231
RTOR Reduction (vph)	0	0	0	0	23	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	356	303	0	0	1230	836	0	1265	231
Turn Type				Perm					Free			Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				23.0	23.0			59.0	90.0		59.0	90.0
Effective Green, g (s)				24.0	24.0			60.0	90.0		60.0	90.0
Actuated g/C Ratio				0.27	0.27			0.67	1.00		0.67	1.00
Clearance Time (s)				4.0	4.0			4.0			4.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				448	425			3390	1583		3390	1583
v/s Ratio Prot								0.24			0.25	
v/s Ratio Perm				c0.21	0.19				c0.53			0.15
v/c Ratio				0.79	0.71			0.36	0.53		0.37	0.15
Uniform Delay, d1				30.7	29.9			6.6	0.0		6.7	0.0
Progression Factor				1.00	1.00			0.96	1.00		1.00	1.00
Incremental Delay, d2				9.4	5.6			0.3	1.1		0.3	0.2
Delay (s)				40.1	35.5			6.6	1.1		7.0	0.2
Level of Service				D	D			A	A		A	A
Approach Delay (s)		0.0			37.9			4.4			5.9	
Approach LOS		A			D			A			A	

Intersection Summary

HCM Average Control Delay	10.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.85	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1441	1504					5085	1583		5085	1583
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1441	1504					5085	1583		5085	1583
Volume (vph)	220	0	660	0	0	0	0	1561	535	0	1311	161
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	250	0	750	0	0	0	0	1774	608	0	1490	183
RTOR Reduction (vph)	0	9	9	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	250	366	366	0	0	0	0	1774	608	0	1490	183
Turn Type	Split		Perm						Free			Free
Protected Phases	4	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	28.0	28.0	28.0					54.0	90.0		54.0	90.0
Effective Green, g (s)	29.0	29.0	29.0					55.0	90.0		55.0	90.0
Actuated g/C Ratio	0.32	0.32	0.32					0.61	1.00		0.61	1.00
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)	542	464	485					3108	1583		3108	1583
v/s Ratio Prot	0.15	c0.25						c0.35			0.29	
v/s Ratio Perm			0.24						0.38			0.12
v/c Ratio	0.46	0.79	0.75					0.57	0.38		0.48	0.12
Uniform Delay, d1	24.3	27.7	27.3					10.5	0.0		9.6	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		0.70	1.00
Incremental Delay, d2	0.6	8.6	6.5					0.8	0.7		0.5	0.1
Delay (s)	24.9	36.3	33.8					11.2	0.7		7.2	0.1
Level of Service	C	D	C					B	A		A	A
Approach Delay (s)		32.5			0.0			8.5			6.4	
Approach LOS		C			A			A			A	

Intersection Summary

HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3539	1583		3539	1583	1770	3539	1583	3433	3539	1583
Flt Permitted		1.00	1.00		0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		3539	1583		3375	1583	1770	3539	1583	3433	3539	1583
Volume (vph)	0	331	204	1	250	75	150	788	33	35	599	28
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	360	222	1	272	82	163	857	36	38	651	30
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	14	0	0	0
Lane Group Flow (vph)	0	360	222	0	273	82	163	857	22	38	651	30
Turn Type			Free	Perm		Free	Prot		Perm	Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free	8		Free			2			Free
Actuated Green, G (s)		11.9	68.8		11.9	68.8	9.7	41.2	41.2	3.7	35.2	68.8
Effective Green, g (s)		12.9	68.8		12.9	68.8	10.7	42.2	42.2	4.7	36.2	68.8
Actuated g/C Ratio		0.19	1.00		0.19	1.00	0.16	0.61	0.61	0.07	0.53	1.00
Clearance Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		664	1583		633	1583	275	2171	971	235	1862	1583
v/s Ratio Prot		c0.10					c0.09	c0.24		0.01	0.18	
v/s Ratio Perm			0.14		0.08	0.05			0.01			0.02
v/c Ratio		0.54	0.14		0.43	0.05	0.59	0.39	0.02	0.16	0.35	0.02
Uniform Delay, d1		25.3	0.0		24.7	0.0	27.0	6.8	5.2	30.2	9.5	0.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.9	0.2		0.5	0.1	3.4	0.5	0.0	0.3	0.5	0.0
Delay (s)		26.2	0.2		25.2	0.1	30.4	7.3	5.3	30.5	10.0	0.0
Level of Service		C	A		C	A	C	A	A	C	A	A
Approach Delay (s)		16.3			19.4			10.8			10.7	
Approach LOS		B			B			B			B	

Intersection Summary

HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	68.8	Sum of lost time (s)	6.0
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor		1.00	1.00					0.95	1.00	1.00	0.95	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1775	1583					3539	1583	1770	3539	
Flt Permitted		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1775	1583					3539	1583	1770	3539	
Volume (vph)	267	2	1495	0	0	0	0	1253	698	136	1690	0
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	293	2	1643	0	0	0	0	1377	767	149	1857	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	364	0	0	0
Lane Group Flow (vph)	0	295	1643	0	0	0	0	1377	403	149	1857	0
Turn Type	Perm		Free						Perm	Prot		
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Actuated Green, G (s)		17.9	87.0					44.7	44.7	12.4	61.1	
Effective Green, g (s)		18.9	87.0					45.7	45.7	13.4	62.1	
Actuated g/C Ratio		0.22	1.00					0.53	0.53	0.15	0.71	
Clearance Time (s)		4.0						4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0						3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		386	1583					1859	832	273	2526	
v/s Ratio Prot								0.39		0.08	0.52	
v/s Ratio Perm		0.17	c1.04						0.25			
v/c Ratio		0.76	1.04					0.74	0.48	0.55	0.74	
Uniform Delay, d1		32.0	43.5					16.0	13.1	34.0	7.5	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		8.7	33.1					2.7	2.0	2.2	1.9	
Delay (s)		40.7	76.6					18.7	15.2	36.2	9.4	
Level of Service		D	E					B	B	D	A	
Approach Delay (s)		71.1			0.0			17.5			11.4	
Approach LOS		E			A			B			B	

Intersection Summary

HCM Average Control Delay	32.6	HCM Level of Service	C
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	87.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	75.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	3.0				
Lane Util. Factor	1.00	0.95			0.95		0.97	1.00				
Frt	1.00	1.00			0.98		1.00	0.85				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1770	3539			3469		3433	1583				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	1770	3539			3469		3433	1583				
Volume (vph)	440	983	0	0	580	89	97	0	26	0	0	0
Peak-hour factor, PHF	0.88	0.88	0.92	0.92	0.88	0.88	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	500	1117	0	0	659	101	110	0	30	0	0	0
RTOR Reduction (vph)	0	0	0	0	13	0	0	26	0	0	0	0
Lane Group Flow (vph)	500	1117	0	0	747	0	110	4	0	0	0	0
Turn Type	Prot						Perm					
Protected Phases	7	4			8			2				
Permitted Phases							2					
Actuated Green, G (s)	21.4	44.2			18.8		7.7	7.7				
Effective Green, g (s)	22.4	45.2			19.8		8.7	8.7				
Actuated g/C Ratio	0.37	0.75			0.33		0.15	0.15				
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	662	2670			1147		499	230				
v/s Ratio Prot	c0.28	0.32			c0.22			0.00				
v/s Ratio Perm							c0.03					
v/c Ratio	0.76	0.42			0.65		0.22	0.02				
Uniform Delay, d1	16.4	2.6			17.1		22.6	21.9				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	4.9	0.1			1.3		0.2	0.0				
Delay (s)	21.3	2.7			18.4		22.8	22.0				
Level of Service	C	A			B		C	C				
Approach Delay (s)		8.5			18.4			22.6			0.0	
Approach LOS		A			B			C			A	

Intersection Summary

HCM Average Control Delay	12.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	59.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	104	1154	192	16	522	152	229	1	81	299	333	81
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	113	1254	209	17	567	165	249	1	88	325	362	88
RTOR Reduction (vph)	0	0	120	0	0	0	0	0	75	0	0	71
Lane Group Flow (vph)	113	1254	89	17	567	165	249	1	13	325	362	17
Turn Type	Prot		Perm	Prot		Free	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free			2			6
Actuated Green, G (s)	7.2	29.0	29.0	0.7	22.5	70.5	12.5	9.8	9.8	15.0	12.3	12.3
Effective Green, g (s)	8.2	30.0	30.0	1.7	23.5	70.5	13.5	10.8	10.8	16.0	13.3	13.3
Actuated g/C Ratio	0.12	0.43	0.43	0.02	0.33	1.00	0.19	0.15	0.15	0.23	0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	206	1506	674	43	1180	1583	339	542	243	402	668	299
v/s Ratio Prot	c0.06	c0.35		0.01	0.16		0.14	0.00		c0.18	c0.10	
v/s Ratio Perm			0.06			c0.10			0.01			0.01
v/c Ratio	0.55	0.83	0.13	0.40	0.48	0.10	0.73	0.00	0.06	0.81	0.54	0.06
Uniform Delay, d1	29.4	18.0	12.3	33.9	18.7	0.0	26.8	25.3	25.5	25.8	25.8	23.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.0	4.1	0.1	5.9	0.3	0.1	8.0	0.0	0.1	11.4	0.9	0.1
Delay (s)	32.4	22.1	12.4	39.8	19.0	0.1	34.8	25.3	25.6	37.2	26.7	23.5
Level of Service	C	C	B	D	B	A	C	C	C	D	C	C
Approach Delay (s)		21.6			15.3			32.4			30.7	
Approach LOS		C			B			C			C	

Intersection Summary

HCM Average Control Delay	23.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	70.5	Sum of lost time (s)	9.0
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	1274	2	24	124	77	0	0	348	27
Peak Hour Factor	0.93	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.93	0.93
Hourly flow rate (vph)	0	0	0	1370	2	26	133	83	0	0	374	29

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	1398	216	403
Volume Left (vph)	1370	133	0
Volume Right (vph)	26	0	29
Hadj (s)	0.22	0.16	-0.01
Departure Headway (s)	6.1	6.8	6.3
Degree Utilization, x	2.35	0.41	0.70
Capacity (veh/h)	604	519	568
Control Delay (s)	629.1	14.4	22.6
Approach Delay (s)	629.1	14.4	22.6
Approach LOS	F	B	C

Intersection Summary			
Delay	442.0		
HCM Level of Service	F		
Intersection Capacity Utilization	113.0%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	22	1	316	0	0	0	0	175	339	52	1579	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.95	0.95	0.95	0.87	0.87	0.87	0.87	0.95
Hourly flow rate (vph)	25	1	363	0	0	0	0	201	390	60	1815	0

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total (vph)	390	591	1875
Volume Left (vph)	25	0	60
Volume Right (vph)	363	390	0
Hadj (s)	-0.51	-0.36	0.04
Departure Headway (s)	6.4	5.9	6.4
Degree Utilization, x	0.70	0.98	3.34
Capacity (veh/h)	546	602	566
Control Delay (s)	23.0	54.8	1071.3
Approach Delay (s)	23.0	54.8	1071.3
Approach LOS	C	F	F

Intersection Summary			
Delay	717.9		
HCM Level of Service	F		
Intersection Capacity Utilization	146.8%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				1.00		1.00	0.97	0.95			0.86	1.00
Frt				1.00		0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770		1583	3433	3539			6408	1583
Flt Permitted				0.95		1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770		1583	3433	3539			6408	1583
Volume (vph)	0	0	0	382	0	280	719	95	0	0	270	294
Peak-hour factor, PHF	0.82	0.82	0.82	0.96	0.82	0.96	0.96	0.96	0.82	0.82	0.96	0.96
Adj. Flow (vph)	0	0	0	398	0	292	749	99	0	0	281	306
RTOR Reduction (vph)	0	0	0	0	0	208	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	398	0	84	749	99	0	0	281	306
Turn Type				custom		custom	Prot					Free
Protected Phases							5	2			6	
Permitted Phases				8		8						Free
Actuated Green, G (s)				22.1		22.1	28.9	49.9			17.0	80.0
Effective Green, g (s)				23.1		23.1	29.9	50.9			18.0	80.0
Actuated g/C Ratio				0.29		0.29	0.37	0.64			0.22	1.00
Clearance Time (s)				4.0		4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				511		457	1283	2252			1442	1583
v/s Ratio Prot							c0.22	0.03			0.04	
v/s Ratio Perm				c0.22		0.05						c0.19
v/c Ratio				0.78		0.18	0.58	0.04			0.19	0.19
Uniform Delay, d1				26.1		21.4	20.1	5.4			25.1	0.0
Progression Factor				1.00		1.00	0.78	0.63			1.00	1.00
Incremental Delay, d2				7.4		0.2	1.9	0.0			0.3	0.3
Delay (s)				33.5		21.6	17.7	3.5			25.4	0.3
Level of Service				C		C	B	A			C	A
Approach Delay (s)		0.0			28.4			16.0			12.3	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	19.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97		1.00					0.86	1.00	0.97	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433		1583					6408	1583	3433	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433		1583					6408	1583	3433	3539	
Volume (vph)	39	0	1081	0	0	0	0	693	211	106	394	0
Peak-hour factor, PHF	0.91	0.84	0.91	0.84	0.84	0.84	0.84	0.91	0.91	0.91	0.91	0.84
Adj. Flow (vph)	43	0	1188	0	0	0	0	762	232	116	433	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	43	0	1188	0	0	0	0	762	232	116	433	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	2.8		80.0					53.2	80.0	12.0	69.2	
Effective Green, g (s)	3.8		80.0					54.2	80.0	13.0	70.2	
Actuated g/C Ratio	0.05		1.00					0.68	1.00	0.16	0.88	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	163		1583					4341	1583	558	3105	
v/s Ratio Prot								0.12		0.03	0.12	
v/s Ratio Perm	0.01		c0.75						0.15			
v/c Ratio	0.26		0.75					0.18	0.15	0.21	0.14	
Uniform Delay, d1	36.8		0.0					4.7	0.0	29.0	0.7	
Progression Factor	1.00		1.00					1.00	1.00	0.76	1.91	
Incremental Delay, d2	0.9		3.3					0.1	0.2	0.2	0.1	
Delay (s)	37.6		3.3					4.8	0.2	22.1	1.4	
Level of Service	D		A					A	A	C	A	
Approach Delay (s)		4.5			0.0			3.7			5.8	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	4.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97	0.95	0.88	0.97	0.91		0.86	0.86	1.00	0.94	0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	2787	3433	4952		1522	4793	1583	4990	3528	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	2787	3433	4952		1522	4793	1583	4990	3528	
Volume (vph)	296	763	780	187	833	177	233	597	140	901	1036	22
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	308	795	812	195	868	184	243	622	146	939	1079	23
RTOR Reduction (vph)	0	0	593	0	36	0	0	0	119	0	1	0
Lane Group Flow (vph)	308	795	219	195	1016	0	208	657	27	939	1101	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			
Actuated Green, G (s)	8.3	23.3	23.3	6.0	21.0		15.5	15.5	15.5	29.2	29.2	
Effective Green, g (s)	9.3	24.3	24.3	7.0	22.0		16.5	16.5	16.5	30.2	30.2	
Actuated g/C Ratio	0.10	0.27	0.27	0.08	0.24		0.18	0.18	0.18	0.34	0.34	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	355	956	752	267	1210		279	879	290	1674	1184	
v/s Ratio Prot	0.09	c0.22		0.06	c0.21		0.14	c0.14		0.19	c0.31	
v/s Ratio Perm			0.08						0.02			
v/c Ratio	0.87	0.83	0.29	0.73	0.84		0.75	0.75	0.09	0.56	0.93	
Uniform Delay, d1	39.7	30.9	26.0	40.6	32.3		34.8	34.8	30.5	24.5	28.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	0.76	0.79	
Incremental Delay, d2	19.4	8.4	1.0	9.8	7.1		10.3	3.5	0.1	0.4	11.1	
Delay (s)	59.2	39.3	27.0	50.4	39.4		45.1	38.3	30.7	18.9	33.8	
Level of Service	E	D	C	D	D		D	D	C	B	C	
Approach Delay (s)		37.3			41.1			38.6			27.0	
Approach LOS		D			D			D			C	

Intersection Summary

HCM Average Control Delay	34.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	83.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Volume (vph)	242	1090	121	404	1421	444	181	873	317	424	1287	112
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	252	1135	126	421	1480	462	189	909	330	442	1341	117
RTOR Reduction (vph)	0	0	83	0	0	161	0	0	156	0	0	80
Lane Group Flow (vph)	252	1135	43	421	1480	301	189	909	174	442	1341	37
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	7.0	26.0	26.0	10.0	29.0	29.0	4.0	17.0	17.0	11.0	24.0	24.0
Effective Green, g (s)	8.0	27.0	27.0	11.0	30.0	30.0	5.0	18.0	18.0	12.0	25.0	25.0
Actuated g/C Ratio	0.10	0.34	0.34	0.14	0.38	0.38	0.06	0.22	0.22	0.15	0.31	0.31
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	343	1194	534	472	1907	594	215	1144	356	515	1589	495
v/s Ratio Prot	0.07	c0.32		c0.12	c0.29		0.06	0.18		c0.13	c0.26	
v/s Ratio Perm			0.03			0.19			0.11			0.02
v/c Ratio	0.73	0.95	0.08	0.89	0.78	0.51	0.88	0.79	0.49	0.86	0.84	0.07
Uniform Delay, d1	35.0	25.8	18.0	33.9	22.0	19.3	37.2	29.3	27.0	33.2	25.7	19.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.9	15.7	0.1	18.7	2.0	0.7	30.8	5.7	4.7	13.3	5.7	0.3
Delay (s)	42.9	41.5	18.1	52.6	24.1	20.0	68.0	35.0	31.7	46.5	31.3	19.6
Level of Service	D	D	B	D	C	B	E	C	C	D	C	B
Approach Delay (s)		39.8			28.4			38.6			34.1	
Approach LOS		D			C			D			C	

Intersection Summary

HCM Average Control Delay	34.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	85.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3449		1770	1863	1583	1770	3507		1770	3517	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3449		1770	1863	1583	1770	3507		1770	3517	
Volume (vph)	78	266	54	95	384	122	48	1103	72	129	1150	51
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	80	274	56	98	396	126	49	1137	74	133	1186	53
RTOR Reduction (vph)	0	22	0	0	0	97	0	6	0	0	4	0
Lane Group Flow (vph)	80	308	0	98	396	29	49	1205	0	133	1235	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	3.8	15.8		3.8	15.8	15.8	2.3	33.0		5.3	36.0	
Effective Green, g (s)	4.8	16.8		4.8	16.8	16.8	3.3	34.0		6.3	37.0	
Actuated g/C Ratio	0.06	0.23		0.06	0.23	0.23	0.04	0.46		0.09	0.50	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	115	784		115	424	360	79	1614		151	1761	
v/s Ratio Prot	0.05	0.09		c0.06	c0.21		0.03	0.34		c0.08	c0.35	
v/s Ratio Perm						0.02						
v/c Ratio	0.70	0.39		0.85	0.93	0.08	0.62	0.75		0.88	0.70	
Uniform Delay, d1	33.8	24.2		34.2	28.0	22.5	34.7	16.4		33.4	14.2	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	16.7	0.3		42.0	27.6	0.1	14.2	3.2		40.5	2.4	
Delay (s)	50.5	24.5		76.2	55.6	22.6	48.8	19.6		74.0	16.6	
Level of Service	D	C		E	E	C	D	B		E	B	
Approach Delay (s)		29.6			52.2			20.7			22.1	
Approach LOS		C			D			C			C	

Intersection Summary

HCM Average Control Delay	27.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	73.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Util. Factor	1.00	1.00	1.00			1.00	0.91		1.00	0.95		
Frt	1.00	1.00	0.85			1.00	0.92		1.00	0.86		
Flt Protected	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1583			1770	4668		1770	3033		
Flt Permitted	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1863	1583			1770	4668		1770	3033		
Volume (vph)	57	200	264	80	49	492	198	239	113	35	567	152
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	58	204	269	82	50	502	202	244	115	36	579	155
RTOR Reduction (vph)	0	0	8	0	0	0	147	0	0	15	0	0
Lane Group Flow (vph)	58	204	343	0	0	552	299	0	115	755	0	0
Turn Type	Split		Perm		Split	Split			Split			
Protected Phases	4	4			8	8	8		2	2		
Permitted Phases			4									
Actuated Green, G (s)	23.0	23.0	23.0			30.0	30.0		28.0	28.0		
Effective Green, g (s)	24.0	24.0	24.0			31.0	31.0		29.0	29.0		
Actuated g/C Ratio	0.16	0.16	0.16			0.21	0.21		0.19	0.19		
Clearance Time (s)	4.0	4.0	4.0			4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	283	298	253			366	965		342	586		
v/s Ratio Prot	0.03	0.11				c0.31	0.06		0.06	c0.25		
v/s Ratio Perm			c0.22									
v/c Ratio	0.20	0.68	1.36			1.51	0.31		0.34	2.29dr		
Uniform Delay, d1	54.7	59.4	63.0			59.5	50.4		52.2	60.5		
Progression Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.4	6.4	184.4			242.5	0.2		0.6	142.6		
Delay (s)	55.1	65.8	247.4			302.0	50.6		52.8	203.1		
Level of Service	E	E	F			F	D		D	F		
Approach Delay (s)		168.8					189.6			183.6		
Approach LOS		F					F			F		

Intersection Summary

HCM Average Control Delay	173.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.38		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	120.7%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

Movement	SBL2	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	
Lane Util. Factor		0.86	0.86		1.00	1.00	0.88	
Frt		1.00	0.99		1.00	1.00	0.85	
Flt Protected		0.95	0.97		0.95	0.95	1.00	
Satd. Flow (prot)		1522	4657		1770	1770	2787	
Flt Permitted		0.95	0.97		0.95	0.95	1.00	
Satd. Flow (perm)		1522	4657		1770	1770	2787	
Volume (vph)	73	810	360	29	11	287	407	72
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	74	827	367	30	11	293	415	73
RTOR Reduction (vph)	0	0	2	0	0	0	9	0
Lane Group Flow (vph)	0	451	845	0	11	293	479	0
Turn Type	Split		Prot		Prot	Prot		
Protected Phases	6	6	6		1	1		
Permitted Phases							1	
Actuated Green, G (s)		29.0	29.0		20.0	20.0	20.0	
Effective Green, g (s)		30.0	30.0		21.0	21.0	21.0	
Actuated g/C Ratio		0.20	0.20		0.14	0.14	0.14	
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		304	931		248	248	390	
v/s Ratio Prot		c0.30	0.18		0.01	0.17		
v/s Ratio Perm							c0.17	
v/c Ratio		1.48	1.33dl		0.04	1.18	1.23	
Uniform Delay, d1		60.0	58.6		55.8	64.5	64.5	
Progression Factor		1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2		234.5	12.3		0.1	115.2	123.8	
Delay (s)		294.5	70.9		55.9	179.7	188.3	
Level of Service		F	E		E	F	F	
Approach Delay (s)			148.6			183.3		
Approach LOS			F			F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	729	0	224	0	1209	261	0	1299	275
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	848	0	260	0	1406	303	0	1510	320
RTOR Reduction (vph)	0	0	0	0	0	24	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	848	0	236	0	1406	303	0	1510	320
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				28.0		28.0		54.0	90.0		54.0	90.0
Effective Green, g (s)				29.0		29.0		55.0	90.0		55.0	90.0
Actuated g/C Ratio				0.32		0.32		0.61	1.00		0.61	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1106		510		3108	1583		2163	1583
v/s Ratio Prot				c0.25		0.15		0.28			c0.43	
v/s Ratio Perm									0.19			0.20
v/c Ratio				0.77		0.46		0.45	0.19		0.70	0.20
Uniform Delay, d1				27.5		24.3		9.4	0.0		11.9	0.0
Progression Factor				1.00		1.00		0.60	1.00		1.00	1.00
Incremental Delay, d2				3.2		0.7		0.4	0.2		1.9	0.3
Delay (s)				30.7		25.0		6.1	0.2		13.8	0.3
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			29.3			5.0			11.4	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	63.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.90						1.00	0.85		0.98	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1561						3539	1583		4994	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1561						3539	1583		4994	
Volume (vph)	288	0	143	0	0	0	0	1269	726	0	1862	252
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	306	0	152	0	0	0	0	1350	772	0	1981	268
RTOR Reduction (vph)	0	8	0	0	0	0	0	0	0	0	12	0
Lane Group Flow (vph)	240	210	0	0	0	0	0	1350	772	0	2237	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.3	17.3						64.7	90.0		64.7	
Effective Green, g (s)	18.3	18.3						65.7	90.0		65.7	
Actuated g/C Ratio	0.20	0.20						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	342	317						2583	1583		3646	
v/s Ratio Prot	c0.14	0.13						0.38			c0.45	
v/s Ratio Perm									0.49			
v/c Ratio	0.70	0.66						0.52	0.49		0.61	
Uniform Delay, d1	33.3	33.0						5.3	0.0		5.9	
Progression Factor	1.00	1.00						0.79	1.00		0.78	
Incremental Delay, d2	6.4	5.1						0.7	1.0		0.5	
Delay (s)	39.7	38.1						4.9	1.0		5.2	
Level of Service	D	D						A	A		A	
Approach Delay (s)		39.0			0.0			3.4			5.2	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0			3.0	3.0		3.0	3.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.91			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1681	1576			5085	1583		5085	1583
Flt Permitted				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1681	1576			5085	1583		5085	1583
Volume (vph)	0	0	0	580	0	239	0	1602	843	0	1347	465
Peak-hour factor, PHF	0.92	0.92	0.92	0.85	0.92	0.85	0.92	0.85	0.85	0.92	0.85	0.85
Adj. Flow (vph)	0	0	0	682	0	281	0	1885	992	0	1585	547
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	507	453	0	0	1885	992	0	1585	547
Turn Type				Perm					Free			Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				31.8	31.8			50.2	90.0		50.2	90.0
Effective Green, g (s)				32.8	32.8			51.2	90.0		51.2	90.0
Actuated g/C Ratio				0.36	0.36			0.57	1.00		0.57	1.00
Clearance Time (s)				4.0	4.0			4.0			4.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				613	574			2893	1583		2893	1583
v/s Ratio Prot								0.37			0.31	
v/s Ratio Perm				c0.30	0.29				c0.63			0.35
v/c Ratio				0.83	0.79			0.65	0.63		0.55	0.35
Uniform Delay, d1				26.0	25.5			13.3	0.0		12.2	0.0
Progression Factor				1.00	1.00			1.03	1.00		1.00	1.00
Incremental Delay, d2				9.0	7.2			0.8	1.3		0.8	0.6
Delay (s)				35.0	32.7			14.5	1.3		12.9	0.6
Level of Service				C	C			B	A		B	A
Approach Delay (s)		0.0			33.9			9.9			9.7	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	13.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	61.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.85	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1442	1504					5085	1583		5085	1583
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1442	1504					5085	1583		5085	1583
Volume (vph)	392	0	910	0	0	0	0	2059	402	0	1815	177
Peak-hour factor, PHF	0.94	0.94	0.94	0.88	0.92	0.92	0.92	0.94	0.94	0.88	0.94	0.94
Adj. Flow (vph)	417	0	968	0	0	0	0	2190	428	0	1931	188
RTOR Reduction (vph)	0	3	3	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	414	484	481	0	0	0	0	2190	428	0	1931	188
Turn Type	Split		Perm						Free			Free
Protected Phases	4	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	34.4	34.4	34.4					47.6	90.0		47.6	90.0
Effective Green, g (s)	35.4	35.4	35.4					48.6	90.0		48.6	90.0
Actuated g/C Ratio	0.39	0.39	0.39					0.54	1.00		0.54	1.00
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)	661	567	592					2746	1583		2746	1583
v/s Ratio Prot	0.25	c0.34						c0.43			0.38	
v/s Ratio Perm			0.32						0.27			0.12
v/c Ratio	0.63	0.85	0.81					0.80	0.27		0.70	0.12
Uniform Delay, d1	22.0	24.9	24.3					16.7	0.0		15.4	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		0.68	1.00
Incremental Delay, d2	1.9	11.9	8.3					2.5	0.4		1.2	0.1
Delay (s)	23.8	36.8	32.7					19.2	0.4		11.6	0.1
Level of Service	C	D	C					B	A		B	A
Approach Delay (s)		31.5			0.0			16.2			10.6	
Approach LOS		C			A			B			B	

Intersection Summary

HCM Average Control Delay	17.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3539	1583		3539	1583	1770	3539	1583	3433	3539	1583
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		3539	1583		3539	1583	1770	3539	1583	3433	3539	1583
Volume (vph)	0	208	322	0	744	84	149	753	23	58	1042	48
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	226	350	0	809	91	162	818	25	63	1133	52
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	11	0	0	0
Lane Group Flow (vph)	0	226	350	0	809	91	162	818	14	63	1133	52
Turn Type			Free			Free	Prot		Perm	Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Actuated Green, G (s)		19.8	72.8		19.8	72.8	8.2	38.7	38.7	2.3	32.8	72.8
Effective Green, g (s)		20.8	72.8		20.8	72.8	9.2	39.7	39.7	3.3	33.8	72.8
Actuated g/C Ratio		0.29	1.00		0.29	1.00	0.13	0.55	0.55	0.05	0.46	1.00
Clearance Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1011	1583		1011	1583	224	1930	863	156	1643	1583
v/s Ratio Prot		0.06			c0.23		c0.09	0.23		0.02	c0.32	
v/s Ratio Perm			0.22			0.06			0.01			0.03
v/c Ratio		0.22	0.22		0.80	0.06	0.72	0.42	0.02	0.40	0.69	0.03
Uniform Delay, d1		19.8	0.0		24.1	0.0	30.6	9.8	7.6	33.8	15.4	0.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.1	0.3		4.6	0.1	11.0	0.7	0.0	1.7	2.4	0.0
Delay (s)		20.0	0.3		28.7	0.1	41.5	10.5	7.6	35.5	17.8	0.0
Level of Service		B	A		C	A	D	B	A	D	B	A
Approach Delay (s)		8.0			25.8			15.4			17.9	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	17.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	72.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor		1.00	1.00					0.95	1.00	1.00	0.95	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1770	1583					3539	1583	1770	3539	
Flt Permitted		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1770	1583					3539	1583	1770	3539	
Volume (vph)	146	0	760	0	0	0	0	2482	1025	225	1428	0
Peak-hour factor, PHF	0.91	0.96	0.96	0.25	0.91	0.91	0.91	0.96	0.96	0.96	0.96	0.91
Adj. Flow (vph)	160	0	792	0	0	0	0	2585	1068	234	1488	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	167	0	0	0
Lane Group Flow (vph)	0	160	792	0	0	0	0	2585	901	234	1488	0
Turn Type	Perm		Free						Perm	Prot		
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Actuated Green, G (s)		15.4	149.4					104.0	104.0	18.0	126.0	
Effective Green, g (s)		16.4	149.4					105.0	105.0	19.0	127.0	
Actuated g/C Ratio		0.11	1.00					0.70	0.70	0.13	0.85	
Clearance Time (s)		4.0						4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0						3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		194	1583					2487	1113	225	3008	
v/s Ratio Prot								c0.73		c0.13	0.42	
v/s Ratio Perm		0.09	0.50						0.57			
v/c Ratio		0.82	0.50					1.04	0.81	1.04	0.49	
Uniform Delay, d1		65.1	0.0					22.2	15.3	65.2	2.9	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		23.9	1.1					29.3	6.4	70.8	0.6	
Delay (s)		89.0	1.1					51.5	21.7	136.0	3.5	
Level of Service		F	A					D	C	F	A	
Approach Delay (s)		15.9			0.0			42.8			21.5	
Approach LOS		B			A			D			C	

Intersection Summary

HCM Average Control Delay	32.9	HCM Level of Service	C
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	149.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	99.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	3.0				
Lane Util. Factor	1.00	0.95			0.95		0.97	1.00				
Frt	1.00	1.00			0.98		1.00	0.85				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1770	3539			3475		3433	1583				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	1770	3539			3475		3433	1583				
Volume (vph)	264	636	0	0	1343	183	404	0	15	0	0	0
Peak-hour factor, PHF	0.94	0.94	0.92	0.92	0.94	0.94	0.94	0.88	0.94	0.92	0.92	0.92
Adj. Flow (vph)	281	677	0	0	1429	195	430	0	16	0	0	0
RTOR Reduction (vph)	0	0	0	0	14	0	0	12	0	0	0	0
Lane Group Flow (vph)	281	677	0	0	1610	0	430	4	0	0	0	0
Turn Type	Prot						Perm					
Protected Phases	7	4			8			2				
Permitted Phases							2					
Actuated Green, G (s)	10.0	50.0			36.0		17.0	17.0				
Effective Green, g (s)	11.0	51.0			37.0		18.0	18.0				
Actuated g/C Ratio	0.15	0.68			0.49		0.24	0.24				
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	260	2407			1714		824	380				
v/s Ratio Prot	c0.16	0.19			c0.46			0.00				
v/s Ratio Perm							c0.13					
v/c Ratio	1.08	0.28			0.94		0.52	0.01				
Uniform Delay, d1	32.0	4.7			17.9		24.8	21.7				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	79.0	0.1			10.4		2.4	0.0				
Delay (s)	111.0	4.8			28.4		27.1	21.8				
Level of Service	F	A			C		C	C				
Approach Delay (s)		36.0			28.4			26.9			0.0	
Approach LOS		D			C			C			A	

Intersection Summary

HCM Average Control Delay	30.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	68	572	566	14	1081	697	590	9	74	161	148	112
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	74	622	615	15	1175	758	641	10	80	175	161	122
RTOR Reduction (vph)	0	0	383	0	0	0	0	0	55	0	0	100
Lane Group Flow (vph)	74	622	232	15	1175	758	641	10	25	175	161	22
Turn Type	Prot		Perm	Prot		Free	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free			2			6
Actuated Green, G (s)	4.0	34.9	34.9	1.6	32.5	95.1	33.0	28.9	28.9	13.7	9.6	9.6
Effective Green, g (s)	5.0	35.9	35.9	2.6	33.5	95.1	34.0	29.9	29.9	14.7	10.6	10.6
Actuated g/C Ratio	0.05	0.38	0.38	0.03	0.35	1.00	0.36	0.31	0.31	0.15	0.11	0.11
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	93	1336	598	48	1247	1583	633	1113	498	274	394	176
v/s Ratio Prot	0.04	0.18		0.01	c0.33		c0.36	0.00		0.10	0.05	
v/s Ratio Perm			0.15			c0.48			0.02			0.01
v/c Ratio	0.80	0.47	0.39	0.31	0.94	0.48	1.01	0.01	0.05	0.64	0.41	0.12
Uniform Delay, d1	44.5	22.4	21.6	45.4	29.9	0.0	30.6	22.4	22.7	37.7	39.3	38.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	36.1	0.3	0.4	3.7	13.9	1.0	39.0	0.0	0.0	4.8	0.7	0.3
Delay (s)	80.6	22.6	22.0	49.1	43.7	1.0	69.5	22.4	22.8	42.5	40.0	38.4
Level of Service	F	C	C	D	D	A	E	C	C	D	D	D
Approach Delay (s)		25.6			27.2			63.7			40.5	
Approach LOS		C			C			E			D	

Intersection Summary

HCM Average Control Delay	34.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	95.1	Sum of lost time (s)	6.0
Intersection Capacity Utilization	83.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	480	2	76	625	642	0	0	206	36
Peak Hour Factor	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Hourly flow rate (vph)	0	0	0	500	2	79	651	669	0	0	215	38

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	581	1320	252
Volume Left (vph)	500	651	0
Volume Right (vph)	79	0	38
Hadj (s)	0.12	0.13	-0.06
Departure Headway (s)	6.5	6.5	6.9
Degree Utilization, x	1.05	2.38	0.49
Capacity (veh/h)	548	566	515
Control Delay (s)	76.6	642.6	16.3
Approach Delay (s)	76.6	642.6	16.3
Approach LOS	F	F	C

Intersection Summary			
Delay	416.5		
HCM Level of Service	F		
Intersection Capacity Utilization	122.7%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	49	0	197	0	0	0	0	1275	898	48	597	0
Peak Hour Factor	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Hourly flow rate (vph)	54	0	219	0	0	0	0	1417	998	53	663	0

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total (vph)	273	2414	717
Volume Left (vph)	54	0	53
Volume Right (vph)	219	998	0
Hadj (s)	-0.41	-0.21	0.05
Departure Headway (s)	6.6	5.6	5.9
Degree Utilization, x	0.50	3.78	1.17
Capacity (veh/h)	543	646	618
Control Delay (s)	16.0	1266.9	116.3
Approach Delay (s)	16.0	1266.9	116.3
Approach LOS	C	F	F

Intersection Summary			
Delay	924.2		
HCM Level of Service	F		
Intersection Capacity Utilization	143.5%	ICU Level of Service	H
Analysis Period (min)	15		

20. Ventura & Gonzales

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	130	.04	320	.10*
NBT	3	4800	1170	.24*	1230	.26
NBR	1	1600	380	.24	350	.22
SBL	2	3200	170	.05*	310	.10
SBT	3	4800	1100	.23	1530	.32*
SBR	1	1600	160	.10	100	.06
EBL	2	3200	280	.09*	290	.09
EBT	2	3200	330	.10	470	.15*
EBR	1	1600	100	.06	140	.09
WBL	2	3200	250	.08	624	.20*
WBT	2	3200	330	.10*	560	.18
WBR	1	1600	100	.06	160	.10
TOTAL CAPACITY UTILIZATION				**.48**		**.77**

24. Ventura & Wooley

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	230	.14	250	.16
NBT	3	4800	860	.20*	1100	.25*
NBR	0	0	80		90	
SBL	2	3200	480	.15*	560	.18*
SBT	3	4800	750	.16	1040	.24
SBR	0	0	40		130	
EBL	2	3200	180	.06	240	.08*
EBT	3	4800	760	.20*	860	.19
EBR	0	0	180		50	
WBL	2	3200	170	.05*	400	.13
WBT	3	4800	500	.13	1190	.29*
WBR	0	0	100		180	
TOTAL CAPACITY UTILIZATION				**.60**		**.80**

45. Oxnard & Vineyard

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	90	.03	240	.08
NBT	3	4800	1280	.27*	1950	.41*
NBR	2	3200	760	.24	910	.28
SBL	2	3200	100	.03*	180	.06*
SBT	4	6400	1340	.22	1530	.28
SBR	0	0	60		260	
EBL	1.5		280	.18	320	{.15}*
EBT	2.5	6400	1030	.21*	670	.15
EBR	1	1600	150	.09	100	.06
WBL	3	4800	540	.11*	770	.16
WBT	2	3200	350	.11	810	.26*
WBR	0	0	10		30	
TOTAL CAPACITY UTILIZATION				**.62**		**.88**

46. Oxnard & Gonzales

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	120	.04	170	.05
NBT	3	4800	1210	.25*	1760	.37*
NBR	1	1600	260	.16	310	.19
SBL	2	3200	570	.18*	410	.13*
SBT	3	4800	1630	.34	1750	.36
SBR	1	1600	60	.04	120	.08
EBL	2	3200	300	.09	260	.08*
EBT	3	4800	910	.19*	980	.20
EBR	1	1600	80	.05	160	.10
WBL	2	3200	240	.08*	340	.11
WBT	3	4800	760	.16	1490	.31*
WBR	1	1600	390	.24	560	.35
TOTAL CAPACITY UTILIZATION				**.70**		**.89**

49. Oxnard & 5th St

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	60	.04	70	.04
NBT	2	3200	830	.29*	1120	.37*
NBR	0	0	110		70	
SBL	1	1600	260	.16*	150	.09*
SBT	2	3200	1090	.34	1280	.42
SBR	0	0	10		70	
EBL	1	1600	30	.02	80	.05*
EBT	2	3200	410	.13*	410	.14
EBR	0	0	10		40	
WBL	1	1600	50	.03*	90	.06
WBT	1	1600	190	.12	440	.28*
WBR	1	1600	70	.04	120	.08

TOTAL CAPACITY UTILIZATION .61 .79

61. Rose & Auto Center

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	130	.08*	180	.11*
NBT	2	3200	620	.19	790	.25
NBR	1	1600	430	.27	540	.34
SBL	1	1600	320	.20	150	.09
SBT	2	3200	1100	.36*	700	.23*
SBR	0	0	40		40	
EBL	1	1600	40	.03	50	.03
EBT	1	1600	170	.11*	220	.14*
EBR	1	1600	220	.14	220	.14
WBL	2.5		200		760	
WBT	0.5	4800	50	.05*	260	.21*
WBR	1	1600	60	.04	240	.15

Note: Assumes E/W Split Phasing
Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION .60 .69

65. Rose & Gonzales

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	310	.10	390	.12
NBT	3	4800	1210	.25*	1510	.31*
NBR	1	1600	410	.26	400	.25
SBL	2	3200	540	.17*	250	.08*
SBT	4	6400	1270	.20	1670	.26
SBR	1	1600	240	.15	550	.34
EBL	2	3200	630	.20	470	.15*
EBT	3	4800	1290	.27*	700	.15
EBR	1	1600	460	.29	310	.19
WBL	2	3200	160	.05*	190	.06
WBT	4	6400	510	.08	1720	.27*
WBR	1	1600	250	.16	510	.32

TOTAL CAPACITY UTILIZATION .74 .81

66. Rose & Camino del Sol

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	170	.05	160	.05*
NBT	3	4800	1480	.34*	1680	.36
NBR	0	0	130		60	
SBL	2	3200	380	.12*	120	.04
SBT	3	4800	1670	.38	1670	.38*
SBR	0	0	140		130	
EBL	2	3200	220	.07	210	.07*
EBT	3	4800	520	.15*	210	.06
EBR	0	0	190		80	
WBL	2	3200	170	.05*	410	.13
WBT	2	3200	130	.04	730	.23*
WBR	1	1600	150	.09	440	.28

TOTAL CAPACITY UTILIZATION .66 .73

68. Rose & 5th

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	10	.01*	80	.05*
NBT	3	4800	1380	.29	1650	.34
NBR	1	1600	400	.25	120	.08
SBL	1	1600	20	.01	20	.01
SBT	3	4800	1760	.37*	1760	.37*
SBR	1	1600	160	.10	220	.14
EBL	2	3200	220	.07	330	.10*
EBT	2	3200	760	.24*	560	.18
EBR	1	1600	60	.04	100	.06
WBL	2	3200	190	.06*	550	.17
WBT	2	3200	240	.08	820	.26*
WBR	1	1600	10	.01	160	.10

TOTAL CAPACITY UTILIZATION .68 .78

69. Rose & Wooley

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03*	90	.06*
NBT	3	4800	1340	.28	1300	.27
NBR	1	1600	100	.06	60	.04
SBL	1	1600	40	.03	40	.03
SBT	3	4800	1580	.33*	1740	.36*
SBR	f		360		490	
EBL	2	3200	460	.14	460	.14*
EBT	2	3200	480	.17*	320	.12
EBR	0	0	50		70	
WBL	2	3200	140	.04*	200	.06
WBT	2	3200	120	.04	590	.19*
WBR	0	0	10		30	

TOTAL CAPACITY UTILIZATION .57 .75

71. Rose & Oxnard

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	190	.12*	390	.24*
NBT	3	4800	1280	.27	1250	.26
NBR	f		10		0	
SBL	2	3200	100	.03	100	.03
SBT	3	4800	1240	.26*	1380	.29*
SBR	f		40		60	
EBL	0	0	0		0	
EBT	2	3200	240	.08*	150	.05
EBR	f		190		60	
WBL	0	0	0		0	
WBT	2	3200	120	.04	450	.14*
WBR	1	1600	70	.04	100	.06

TOTAL CAPACITY UTILIZATION .46 .67

72. Rose & Channel Islands

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	280	.09*	430	.13*
NBT	3	4800	1130	.24	1410	.29
NBR	1	1600	310	.19	200	.13
SBL	1	1600	70	.04	140	.09
SBT	3	4800	1550	.32*	1390	.29*
SBR	1	1600	170	.11	270	.17
EBL	2	3200	440	.14	240	.08
EBT	3	4800	530	.16*	490	.15*
EBR	0	0	250		210	
WBL	2	3200	350	.11*	410	.13*
WBT	3	4800	480	.10	880	.19
WBR	0	0	10		10	

TOTAL CAPACITY UTILIZATION .68 .70

73. Rose & Bard

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	70	.04*	120	.08
NBT	3	4800	1420	.30	1570	.33*
NBR	0	0	10		30	
SBL	1	1600	140	.09	150	.09*
SBT	3	4800	1810	.41*	1120	.33
SBR	0	0	140		470	
EBL	1	1600	260	.16*	200	.13*
EBT	2	3200	170	.08	250	.11
EBR	0	0	70		100	
WBL	1	1600	40	.03	20	.01
WBT	2	3200	170	.11*	410	.19*
WBR	0	0	180	.11	190	
TOTAL CAPACITY UTILIZATION				**.72**		**.74**

74. Rose & Pleasant Valley

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	90	.03*	210	.07
NBT	3	4800	904	.22	1400	.37*
NBR	0	0	160		360	
SBL	2	3200	240	.08	130	.04*
SBT	3	4800	1420	.35*	950	.27
SBR	0	0	240		340	
EBL	2	3200	380	.12*	250	.08*
EBT	3	4800	730	.15	500	.10
EBR	1	1600	160	.10	90	.06
WBL	2	3200	380	.12	230	.07
WBT	3	4800	530	.15*	880	.21*
WBR	0	0	205		140	
TOTAL CAPACITY UTILIZATION				**.65**		**.70**

77. Dupont & Channel Islands

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	90	.06*	70	.04*
SBT	0	0	0		0	
SBR	1	1600	190	.12	150	.09
EBL	1	1600	20	.01	80	.05*
EBT	2	3200	830	.26*	730	.23
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	680	.21	1040	.33*
WBR	1	1600	60	.04	150	.09
Right Turn Adjustment			SBR	.02*	SBR	.01*
TOTAL CAPACITY UTILIZATION				**.34**		**.43**

78. Bard & Pleasant Valley

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	10	.01	10	.01
NBT	1	1600	10	.02*	10	.01*
NBR	0	0	20		10	
SBL	1	1600	180	.11*	320	.20*
SBT	1	1600	10	.01	10	.01
SBR	1	1600	50	.03	40	.03
EBL	1	1600	10	.01*	50	.03*
EBT	2	3200	890	.28	1280	.40
EBR	1	1600	10	.01	10	.01
WBL	1	1600	30	.02	10	.01
WBT	2	3200	1110	.48*	980	.43*
WBR	0	0	410		400	
TOTAL CAPACITY UTILIZATION				**.62**		**.67**

81. Rice & Gonzales

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	340	.11*	330	.10
NBT	4	6400	1400	.22	2670	.42*
NBR	1	1600	520	.33	140	.09
SBL	2	3200	800	.25	350	.11*
SBT	4	6400	2500	.39*	1660	.26
SBR	f		920		520	
EBL	2	3200	190	.06	270	.08*
EBT	4	6400	1490	.23*	1140	.18
EBR	1	1600	220	.14	320	.20
WBL	3	4800	250	.05*	650	.14
WBT	3	4800	620	.13	1310	.27*
WBR	1	1600	160	.10	420	.26
Right Turn Adjustment			NBR	.03*		

Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION .81 .88

82. Rice & Camino Del Sol

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	60	.02	40	.01
NBT	3	4800	2220	.46*	1960	.41*
NBR	1	1600	10	.01	50	.03
SBL	2	3200	170	.05*	360	.11*
SBT	3	4800	1530	.32	2450	.51
SBR	1	1600	570	.36	370	.23
EBL	2	3200	500	.16*	430	.13*
EBT	3	4800	240	.05	340	.07
EBR	1	1600	10	.01	60	.04
WBL	2	3200	10	.00	10	.00
WBT	3	4800	40	.01*	110	.02*
WBR	1	1600	220	.14	40	.03
Right Turn Adjustment			WBR	.09*		

TOTAL CAPACITY UTILIZATION .77 .67

85. Rice & Wooley

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	60	.04	100	.06*
NBT	3	4800	1590	.33*	1720	.36
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1270	.26	2250	.47*
SBR	1	1600	370	.23	590	.37
EBL	2	3200	740	.23*	650	.20*
EBT	0	0	0		0	
EBR	1	1600	90	.06	110	.07
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .56 .73

86. Rice & Channel Islands

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03*	90	.06
NBT	2	3200	860	.27	1300	.41*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	860	.27*	920	.29
SBR	f		410		1240	
EBL	2	3200	850	.27*	430	.13*
EBT	0	0	0		0	
EBR	1	1600	80	.05	90	.06
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .57 .54

87. SR-1/Rice NB & Pleasant Vly

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	120	.04*	280	.09*
NBT	0	0	0		0	
NBR	1	1600	40	.03	40	.03
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	390	.24*	210	.13*
EBT	2	3200	1270	.40	1550	.48
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	1020	.32*	1730	.54*
WBR	1	1600	160	.10	250	.16

TOTAL CAPACITY UTILIZATION .60 .76

88. Oxnard & Pleasant Valley

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	190	.12	330	.21
NBT	2	3200	10	.00*	10	.00*
NBR	1	1600	90	.06	50	.03
SBL	1	1600	340	.21*	360	.23*
SBT	2	3200	80	.03	50	.02
SBR	1	1600	30	.02	50	.03
EBL	1	1600	30	.02*	50	.03*
EBT	2	3200	1140	.36	1340	.42
EBR	1	1600	60	.04	40	.03
WBL	1	1600	20	.01	30	.02
WBT	2	3200	1160	.36*	1360	.43*
WBR	f		70		580	
Right Turn Adjustment			NBR	.04*		

TOTAL CAPACITY UTILIZATION .63 .69

89. Rice & Hueneme

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	30	.02*	10	.01*
SBT	0	0	0		0	
SBR	f		540		350	
EBL	2	3200	400	.13*	660	.21*
EBT	2	3200	510	.16	910	.28
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	780	.24*	810	.25*
WBR	f		10		40	

TOTAL CAPACITY UTILIZATION .39 .47

92. Del Norte & Camino Del Sol

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	90	.06	150	.09*
NBT	3	4800	1000	.21*	590	.13
NBR	0	0	20		10	
SBL	1	1600	20	.01*	50	.03
SBT	3	4800	370	.09	840	.23*
SBR	0	0	60		250	
EBL	2	3200	80	.03*	110	.03*
EBT	1	1600	10	.01	10	.01
EBR	1	1600	10	.01	10	.01
WBL	1	1600	10	.01	10	.01
WBT	1	1600	10	.01*	10	.01*
WBR	0	0	10		10	

TOTAL CAPACITY UTILIZATION .26 .36

94. Del Norte & 5th St

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	10		0	
SBL	2	3200	50	.02*	260	.08*
SBT	0	0	0		0	
SBR	2	3200	340	.11	610	.19
EBL	1	1600	480	.30*	180	.11*
EBT	2	3200	860	.27	840	.26
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	420	.13*	1030	.32*
WBR	1	1600	190	.12	130	.08
Right Turn Adjustment					SBR	.03*
TOTAL CAPACITY UTILIZATION				**.45**		**.54**

100. Rose & Hueneme

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	70	.04*	200	.13
NBT	3	4800	260	.05	920	.19*
NBR	f		100		600	
SBL	1	1600	20	.01	90	.06*
SBT	4	6400	820	.14*	330	.07
SBR	0	0	100		160	.10
EBL	1	1600	110	.07	70	.04*
EBT	2	3200	720	.23*	930	.29
EBR	f		700		120	
WBL	1	1600	330	.21*	80	.05
WBT	2	3200	1110	.35	1100	.34*
WBR	1	1600	10	.01	10	.01
TOTAL CAPACITY UTILIZATION				**.62**		**.63**

101. Oxnard & Channel Islands

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	80	.05*	350	.22*
NBT	2	3200	130	.04	640	.20
NBR	1	1600	10	.01	10	.01
SBL	1	1600	40	.03	80	.05
SBT	2	3200	410	.13*	180	.06*
SBR	1	1600	10	.01	0	.00
EBL	1	1600	10	.01	10	.01*
EBT	2	3200	820	.26*	630	.20
EBR	1	1600	400	.25	380	.24
WBL	1	1600	30	.02*	10	.01
WBT	2	3200	750	.23	1080	.34*
WBR	1	1600	90	.06	80	.05
TOTAL CAPACITY UTILIZATION				**.46**		**.63**

104. Del Norte & Gonzales

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	60	.04*	60	.04
NBT	4	6400	360	.06	2050	.32*
NBR	1	1600	370	.23	420	.26
SBL	1	1600	100	.06	70	.04*
SBT	3	4800	1030	.21*	390	.08
SBR	f		840		340	
EBL	2	3200	30	.01*	990	.31*
EBT	2	3200	180	.06	410	.13
EBR	1	1600	140	.09	180	.11
WBL	2	3200	50	.02	200	.06
WBT	3	4800	560	.12*	290	.06*
WBR	1	1600	70	.04	100	.06
TOTAL CAPACITY UTILIZATION				**.38**		**.73**

121. Rice & Bypass

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	2360	.49*	1630	.34
NBR	1	1600	600	.38	550	.34
SBL	2	3200	10	.00	20	.01
SBT	3	4800	1440	.30	2430	.51*
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	590	.18*	810	.25*
WBT	0	0	0		0	
WBR	f		50		60	
TOTAL CAPACITY UTILIZATION				**.67**		**.76**

122. Bypass & Fifth

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	110	.07*	160	.10*
NBT	0	0	0		0	
NBR	1	1600	490	.31	420	.26
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3200	830	.26*	730	.23*
EBR	1	1600	70	.04	90	.06
WBL	2	3200	570	.18*	780	.24*
WBT	2	3200	460	.14	600	.19
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.10*		
TOTAL CAPACITY UTILIZATION				**.61**		**.57**

124. Rice & Sakioka Street A

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	4	6400	1970	.31*	2300	.36*
NBR	f		930		390	
SBL	2	3200	800	.25*	350	.11*
SBT	3	4800	1800	.38	1640	.34
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	250	.08*	650	.20*
WBT	0	0	0		0	
WBR	f		330		1230	
TOTAL CAPACITY UTILIZATION				**.64**		**.67**

125. Del Norte & Sakioka Street A

OTM 2030 (With Sakioka)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	350	.22*	200	.13*
NBT	3	4800	560	.12	830	.17
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	740	.15*	870	.18*
SBR	1	1600	580	.36	270	.17
EBL	2	3200	380	.12*	1240	.39*
EBT	0	0	0		0	
EBR	1	1600	180	.11	210	.13
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			SBR	.12*		
TOTAL CAPACITY UTILIZATION				**.61**		**.70**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.91	0.95	0.97	0.95			0.86	1.00
Frt				1.00	0.85	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1441	1504	3433	3539			6408	1583
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1441	1504	3433	3539			6408	1583
Volume (vph)	0	0	0	100	0	340	810	420	0	0	470	600
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	105	0	358	853	442	0	0	495	632
RTOR Reduction (vph)	0	0	0	0	157	157	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	105	22	22	853	442	0	0	495	632
Turn Type				Perm		Perm	Prot					Free
Protected Phases					8		5	2			6	
Permitted Phases				8		8						Free
Actuated Green, G (s)				11.4	11.4	11.4	28.9	80.6			47.7	100.0
Effective Green, g (s)				12.4	12.4	12.4	29.9	81.6			48.7	100.0
Actuated g/C Ratio				0.12	0.12	0.12	0.30	0.82			0.49	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				208	179	186	1026	2888			3121	1583
v/s Ratio Prot							c0.25	0.12			0.08	
v/s Ratio Perm				c0.06	0.02	0.01						c0.40
v/c Ratio				0.50	0.12	0.12	0.83	0.15			0.16	0.40
Uniform Delay, d1				40.9	39.0	38.9	32.7	1.9			14.3	0.0
Progression Factor				1.00	1.00	1.00	0.78	2.09			1.00	1.00
Incremental Delay, d2				1.9	0.3	0.3	5.6	0.1			0.1	0.8
Delay (s)				42.9	39.3	39.2	31.2	4.1			14.4	0.8
Level of Service				D	D	D	C	A			B	A
Approach Delay (s)		0.0			40.1			22.0			6.7	
Approach LOS		A			D			C			A	

Intersection Summary

HCM Average Control Delay	18.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		0.88					0.86	1.00	0.97	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		2787					6408	1583	3433	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		2787					6408	1583	3433	3539	
Volume (vph)	190	0	1580	0	0	0	0	1040	410	160	410	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	200	0	1663	0	0	0	0	1095	432	168	432	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	200	0	1663	0	0	0	0	1095	432	168	432	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	15.5		100.0					61.2	100.0	11.3	76.5	
Effective Green, g (s)	16.5		100.0					62.2	100.0	12.3	77.5	
Actuated g/C Ratio	0.16		1.00					0.62	1.00	0.12	0.78	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	292		2787					3986	1583	422	2743	
v/s Ratio Prot								0.17		0.05	0.12	
v/s Ratio Perm	0.11		c0.60						0.27			
v/c Ratio	0.68		0.60					0.27	0.27	0.40	0.16	
Uniform Delay, d1	39.3		0.0					8.6	0.0	40.4	2.9	
Progression Factor	1.00		1.00					1.00	1.00	0.93	1.87	
Incremental Delay, d2	6.5		1.0					0.2	0.4	0.6	0.1	
Delay (s)	45.8		1.0					8.8	0.4	38.3	5.5	
Level of Service	D		A					A	A	D	A	
Approach Delay (s)		5.8			0.0			6.4			14.7	
Approach LOS		A			A			A			B	

Intersection Summary

HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97	0.91	0.88	0.97	0.86		0.86	0.86	1.00	0.94	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	5085	2787	3433	6367		1522	4806	1583	4990	3524	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	5085	2787	3433	6367		1522	4806	1583	4990	3524	
Volume (vph)	90	1280	760	100	1340	60	280	1030	150	540	350	10
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	95	1347	800	105	1411	63	295	1084	158	568	368	11
RTOR Reduction (vph)	0	0	570	0	9	0	0	0	100	0	3	0
Lane Group Flow (vph)	95	1347	230	105	1465	0	295	1084	58	568	376	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			
Actuated Green, G (s)	3.1	18.2	18.2	3.1	18.2		16.1	16.1	16.1	13.4	13.4	
Effective Green, g (s)	4.1	19.2	19.2	4.1	19.2		17.1	17.1	17.1	14.4	14.4	
Actuated g/C Ratio	0.06	0.29	0.29	0.06	0.29		0.26	0.26	0.26	0.22	0.22	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	211	1462	801	211	1830		390	1230	405	1076	760	
v/s Ratio Prot	0.03	c0.26		c0.03	0.23		0.19	c0.23		c0.11	0.11	
v/s Ratio Perm			0.08						0.04			
v/c Ratio	0.45	0.92	0.29	0.50	0.80		0.76	0.88	0.14	0.53	0.49	
Uniform Delay, d1	30.3	23.1	18.5	30.4	22.0		22.9	23.9	19.2	23.2	23.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.5	11.0	0.9	1.8	3.8		8.1	7.7	0.2	0.5	0.5	
Delay (s)	31.8	34.1	19.4	32.2	25.8		31.1	31.6	19.3	23.7	23.5	
Level of Service	C	C	B	C	C		C	C	B	C	C	
Approach Delay (s)		28.7			26.2			30.2			23.6	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	27.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	66.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Volume (vph)	300	910	80	240	760	390	120	1210	260	570	1630	60
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	316	958	84	253	800	411	126	1274	274	600	1716	63
RTOR Reduction (vph)	0	0	64	0	0	200	0	0	178	0	0	37
Lane Group Flow (vph)	316	958	20	253	800	211	126	1274	96	600	1716	26
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	7.0	15.8	15.8	7.0	15.8	15.8	3.2	19.8	19.8	12.0	28.6	28.6
Effective Green, g (s)	8.0	16.8	16.8	8.0	16.8	16.8	4.2	20.8	20.8	13.0	29.6	29.6
Actuated g/C Ratio	0.11	0.24	0.24	0.11	0.24	0.24	0.06	0.29	0.29	0.18	0.42	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	389	1210	377	389	1210	377	204	1498	466	632	2132	664
v/s Ratio Prot	c0.09	c0.19		0.07	0.16		0.04	0.25		c0.17	c0.34	
v/s Ratio Perm			0.01			0.13			0.06			0.02
v/c Ratio	0.81	0.79	0.05	0.65	0.66	0.56	0.62	0.85	0.21	0.95	0.80	0.04
Uniform Delay, d1	30.6	25.3	20.8	30.0	24.3	23.6	32.4	23.4	18.7	28.5	18.0	12.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	12.2	3.6	0.1	3.9	1.4	1.8	5.5	6.3	1.0	23.7	3.4	0.1
Delay (s)	42.8	28.9	20.8	33.8	25.7	25.4	37.9	29.7	19.7	52.1	21.3	12.2
Level of Service	D	C	C	C	C	C	D	C	B	D	C	B
Approach Delay (s)		31.6			27.0			28.7			28.9	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	29.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	70.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.98		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3526		1770	1863	1583	1770	3477		1770	3534	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3526		1770	1863	1583	1770	3477		1770	3534	
Volume (vph)	30	410	10	50	190	70	60	830	110	260	1090	10
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	32	432	11	53	200	74	63	874	116	274	1147	11
RTOR Reduction (vph)	0	2	0	0	0	60	0	11	0	0	1	0
Lane Group Flow (vph)	32	441	0	53	200	14	63	979	0	274	1157	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	2.3	15.2		3.0	15.9	15.9	3.8	37.0		16.5	49.7	
Effective Green, g (s)	3.3	16.2		4.0	16.9	16.9	4.8	38.0		17.5	50.7	
Actuated g/C Ratio	0.04	0.18		0.05	0.19	0.19	0.05	0.43		0.20	0.58	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	67	651		81	359	305	97	1507		353	2043	
v/s Ratio Prot	0.02	c0.13		c0.03	0.11		0.04	c0.28		c0.15	0.33	
v/s Ratio Perm						0.01						
v/c Ratio	0.48	0.68		0.65	0.56	0.05	0.65	0.65		0.78	0.57	
Uniform Delay, d1	41.4	33.3		41.2	32.0	28.8	40.6	19.6		33.2	11.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.3	2.8		17.4	1.9	0.1	14.0	2.2		10.2	1.1	
Delay (s)	46.6	36.1		58.6	33.9	28.9	54.6	21.8		43.5	12.7	
Level of Service	D	D		E	C	C	D	C		D	B	
Approach Delay (s)		36.8			36.8			23.8			18.6	
Approach LOS		D			D			C			B	

Intersection Summary

HCM Average Control Delay	24.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	87.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Util. Factor	1.00	1.00	1.00			0.86	0.86		1.00	0.95		
Frt	1.00	1.00	0.85			1.00	0.98		1.00	0.98		
Flt Protected	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1583			1522	4722		1770	3472		
Flt Permitted	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1863	1583			1522	4722		1770	3472		
Volume (vph)	120	690	290	205	10	70	380	50	220	480	70	90
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	141	812	341	241	12	82	447	59	259	565	82	106
RTOR Reduction (vph)	0	0	17	0	0	0	11	0	0	0	0	0
Lane Group Flow (vph)	141	812	565	0	0	94	495	0	259	647	0	0
Turn Type	Split		Perm		Split	Split			Split			Split
Protected Phases	4	4			8	8	8		2	2		6
Permitted Phases			4									
Actuated Green, G (s)	40.0	40.0	40.0			16.0	16.0		23.0	23.0		
Effective Green, g (s)	41.0	41.0	41.0			17.0	17.0		24.0	24.0		
Actuated g/C Ratio	0.27	0.27	0.27			0.11	0.11		0.16	0.16		
Clearance Time (s)	4.0	4.0	4.0			4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	484	509	433			172	535		283	556		
v/s Ratio Prot	0.08	c0.44				0.06	c0.10		0.15	c0.19		
v/s Ratio Perm			0.36									
v/c Ratio	0.29	1.60	1.31			0.55	0.93		0.92	1.16		
Uniform Delay, d1	43.0	54.5	54.5			62.9	65.9		62.0	63.0		
Progression Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.3	277.0	153.4			3.5	22.1		32.0	92.1		
Delay (s)	43.4	331.5	207.9			66.4	87.9		94.0	155.1		
Level of Service	D	F	F			E	F		F	F		
Approach Delay (s)		258.2					84.6			137.6		
Approach LOS		F					F			F		

Intersection Summary			
HCM Average Control Delay	197.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.37		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	117.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.86	0.86		1.00	1.00	0.88	
Frt	1.00	0.99		1.00	1.00	0.85	
Flt Protected	0.95	0.99		0.95	0.95	1.00	
Satd. Flow (prot)	1522	4726		1770	1770	2787	
Flt Permitted	0.95	0.99		0.95	0.95	1.00	
Satd. Flow (perm)	1522	4726		1770	1770	2787	
Volume (vph)	290	615	45	100	470	270	10
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	341	724	53	118	553	318	12
RTOR Reduction (vph)	0	4	0	0	0	2	0
Lane Group Flow (vph)	295	925	0	118	553	328	0
Turn Type		Prot		Prot	Prot		
Protected Phases	6	6		1	1		
Permitted Phases						1	
Actuated Green, G (s)	21.0	21.0		30.0	30.0	30.0	
Effective Green, g (s)	22.0	22.0		31.0	31.0	31.0	
Actuated g/C Ratio	0.15	0.15		0.21	0.21	0.21	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	223	693		366	366	576	
v/s Ratio Prot	0.19	c0.20		0.07	c0.31		
v/s Ratio Perm						0.12	
v/c Ratio	1.32	1.33		0.32	1.51	0.57	
Uniform Delay, d1	64.0	64.0		50.6	59.5	53.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2	173.1	160.2		0.5	243.6	1.4	
Delay (s)	237.1	224.2		51.1	303.1	54.9	
Level of Service	F	F		D	F	D	
Approach Delay (s)		227.3			191.6		
Approach LOS		F			F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		5085	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		5085	1583
Volume (vph)	0	0	0	870	0	240	0	850	600	0	1770	280
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	916	0	253	0	895	632	0	1863	295
RTOR Reduction (vph)	0	0	0	0	0	67	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	916	0	186	0	895	632	0	1863	295
Turn Type				Prot		custom			Free			Free
Protected Phases				3				2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				30.2		30.2		51.8	90.0		51.8	90.0
Effective Green, g (s)				31.2		31.2		52.8	90.0		52.8	90.0
Actuated g/C Ratio				0.35		0.35		0.59	1.00		0.59	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1190		549		2983	1583		2983	1583
v/s Ratio Prot				c0.27				0.18			c0.37	
v/s Ratio Perm						0.12			0.40			0.19
v/c Ratio				0.77		0.34		0.30	0.40		0.62	0.19
Uniform Delay, d1				26.2		21.8		9.3	0.0		12.1	0.0
Progression Factor				1.00		1.00		0.81	1.00		1.00	1.00
Incremental Delay, d2				3.1		0.4		0.2	0.7		1.0	0.3
Delay (s)				29.3		22.1		7.8	0.7		13.1	0.3
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			27.7			4.8			11.4	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1583					5085	1583		5085	1583
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1583					5085	1583		5085	1583
Volume (vph)	100	0	220	0	0	0	0	1360	1250	0	1950	690
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	105	0	232	0	0	0	0	1432	1316	0	2053	726
RTOR Reduction (vph)	0	0	6	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	105	0	226	0	0	0	0	1432	1316	0	2053	726
Turn Type	Prot		custom						Free			Free
Protected Phases	7							2			6	
Permitted Phases			7						Free			Free
Actuated Green, G (s)	17.0		17.0					65.0	90.0		65.0	90.0
Effective Green, g (s)	18.0		18.0					66.0	90.0		66.0	90.0
Actuated g/C Ratio	0.20		0.20					0.73	1.00		0.73	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	687		317					3729	1583		3729	1583
v/s Ratio Prot	0.03							0.28			0.40	
v/s Ratio Perm			0.14						c0.83			0.46
v/c Ratio	0.15		0.71					0.38	0.83		0.55	0.46
Uniform Delay, d1	29.7		33.6					4.5	0.0		5.4	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.31	1.00
Incremental Delay, d2	0.1		7.3					0.3	5.2		0.4	0.7
Delay (s)	29.8		40.9					4.8	5.2		7.5	0.7
Level of Service	C		D					A	A		A	A
Approach Delay (s)		37.5			0.0			5.0			5.7	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0			3.0	3.0		3.0	3.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.91			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1681	1583			5085	1583		5085	1583
Flt Permitted				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1681	1583			5085	1583		5085	1583
Volume (vph)	0	0	0	630	0	240	0	980	670	0	1380	170
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	663	0	253	0	1032	705	0	1453	179
RTOR Reduction (vph)	0	0	0	0	30	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	476	410	0	0	1032	705	0	1453	179
Turn Type				Perm					Free			Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				27.6	27.6			44.4	80.0		44.4	80.0
Effective Green, g (s)				28.6	28.6			45.4	80.0		45.4	80.0
Actuated g/C Ratio				0.36	0.36			0.57	1.00		0.57	1.00
Clearance Time (s)				4.0	4.0			4.0			4.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				601	566			2886	1583		2886	1583
v/s Ratio Prot								0.20			c0.29	
v/s Ratio Perm				c0.28	0.26				0.45			0.11
v/c Ratio				0.79	0.73			0.36	0.45		0.50	0.11
Uniform Delay, d1				23.0	22.3			9.4	0.0		10.5	0.0
Progression Factor				1.00	1.00			1.20	1.00		1.00	1.00
Incremental Delay, d2				7.1	4.6			0.3	0.8		0.6	0.1
Delay (s)				30.1	26.9			11.5	0.8		11.1	0.1
Level of Service				C	C			B	A		B	A
Approach Delay (s)		0.0			28.6			7.2			9.9	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.85	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1441	1504					5085	1583		5085	1583
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1441	1504					5085	1583		5085	1583
Volume (vph)	350	0	740	0	0	0	0	1320	410	0	1760	210
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	368	0	779	0	0	0	0	1389	432	0	1853	221
RTOR Reduction (vph)	0	3	3	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	368	386	387	0	0	0	0	1389	432	0	1853	221
Turn Type	Split		Perm						Free			Free
Protected Phases	4	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	26.8	26.8	26.8					45.2	80.0		45.2	80.0
Effective Green, g (s)	27.8	27.8	27.8					46.2	80.0		46.2	80.0
Actuated g/C Ratio	0.35	0.35	0.35					0.58	1.00		0.58	1.00
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)	584	501	523					2937	1583		2937	1583
v/s Ratio Prot	0.22	c0.27						0.27			c0.36	
v/s Ratio Perm			0.26						0.27			0.14
v/c Ratio	0.63	0.77	0.74					0.47	0.27		0.63	0.14
Uniform Delay, d1	21.8	23.3	22.9					9.8	0.0		11.2	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		0.63	1.00
Incremental Delay, d2	2.2	7.0	5.4					0.5	0.4		0.8	0.1
Delay (s)	24.0	30.3	28.4					10.4	0.4		8.0	0.1
Level of Service	C	C	C					B	A		A	A
Approach Delay (s)		27.6			0.0			8.0			7.1	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM Average Control Delay	12.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	71.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱	↰	↑↑↑	↱	↰↰	↑↑↑	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3539	1583		3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		3539	1583		3539	1583	1770	5085	1583	3433	5085	1583
Volume (vph)	0	240	190	0	120	70	190	1280	10	100	1240	40
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	253	200	0	126	74	200	1347	11	105	1305	42
RTOR Reduction (vph)	0	0	0	0	0	62	0	0	0	0	0	0
Lane Group Flow (vph)	0	253	200	0	126	12	200	1347	11	105	1305	42
Turn Type			Free			Perm	Prot		Free	Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free			8			Free			Free
Actuated Green, G (s)		10.1	68.3		10.1	10.1	12.6	40.4	68.3	5.8	33.6	68.3
Effective Green, g (s)		11.1	68.3		11.1	11.1	13.6	41.4	68.3	6.8	34.6	68.3
Actuated g/C Ratio		0.16	1.00		0.16	0.16	0.20	0.61	1.00	0.10	0.51	1.00
Clearance Time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		575	1583		575	257	352	3082	1583	342	2576	1583
v/s Ratio Prot		c0.07			0.04		c0.11	0.26		0.03	c0.26	
v/s Ratio Perm			0.13			0.01			0.01			0.03
v/c Ratio		0.44	0.13		0.22	0.05	0.57	0.44	0.01	0.31	0.51	0.03
Uniform Delay, d1		25.8	0.0		24.8	24.1	24.7	7.2	0.0	28.6	11.2	0.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.5	0.2		0.2	0.1	2.1	0.5	0.0	0.5	0.7	0.0
Delay (s)		26.3	0.2		25.0	24.2	26.8	7.7	0.0	29.1	11.9	0.0
Level of Service		C	A		C	C	C	A	A	C	B	A
Approach Delay (s)		14.8			24.7			10.1			12.8	
Approach LOS		B			C			B			B	

Intersection Summary

HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	68.3	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.86	0.91	0.91	0.91		0.97	0.91	0.91		0.91	1.00
Frt	1.00	0.88	0.85	1.00	1.00		1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.97		0.95	1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1391	2882	1610	3278		3433	3390	1441		5085	1583
Flt Permitted	0.95	0.99	1.00	0.95	0.97		0.95	1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1391	2882	1610	3278		3433	3390	1441		5085	1583
Volume (vph)	110	0	430	945	302	25	90	510	560	0	750	140
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	116	0	453	995	318	26	95	537	589	0	789	147
RTOR Reduction (vph)	0	103	51	0	3	0	0	0	0	0	0	109
Lane Group Flow (vph)	93	33	289	498	838	0	95	537	589	0	789	38
Turn Type	custom		custom	Split			Prot		Free			Perm
Protected Phases	4	4	4	8	8		5	2			6	
Permitted Phases	4		5						Free			6
Actuated Green, G (s)	5.0	5.0	9.0	28.0	28.0		4.0	25.0	70.0		17.0	17.0
Effective Green, g (s)	6.0	6.0	11.0	29.0	29.0		5.0	26.0	70.0		18.0	18.0
Actuated g/C Ratio	0.09	0.09	0.16	0.41	0.41		0.07	0.37	1.00		0.26	0.26
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	144	119	453	667	1358		245	1259	1441		1308	407
v/s Ratio Prot	c0.06	0.02	0.05	c0.31	0.26		0.03	0.16			c0.16	
v/s Ratio Perm			0.05						c0.41			0.02
v/c Ratio	0.65	0.27	0.64	0.75	0.62		0.39	0.43	0.41		0.60	0.09
Uniform Delay, d1	31.0	30.0	27.6	17.4	16.1		31.0	16.4	0.0		22.9	19.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	20.2	5.6	6.8	7.5	2.1		4.6	1.1	0.9		2.1	0.5
Delay (s)	51.2	35.6	34.4	24.8	18.2		35.6	17.5	0.9		24.9	20.2
Level of Service	D	D	C	C	B		D	B	A		C	C
Approach Delay (s)		37.4			20.7			10.9			24.2	
Approach LOS		D			C			B			C	

Intersection Summary

HCM Average Control Delay	20.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97		1.00					0.91	0.88	0.97	0.91	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433		1583					5085	2787	3433	5085	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433		1583					5085	2787	3433	5085	
Volume (vph)	170	0	1620	0	0	0	0	990	540	30	2320	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	179	0	1705	0	0	0	0	1042	568	32	2442	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	157	0	0	0
Lane Group Flow (vph)	179	0	1705	0	0	0	0	1042	411	32	2442	0
Turn Type	custom		Free						Perm	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						2			
Actuated Green, G (s)	9.7		90.0					64.2	64.2	4.1	72.3	
Effective Green, g (s)	10.7		90.0					65.2	65.2	5.1	73.3	
Actuated g/C Ratio	0.12		1.00					0.72	0.72	0.06	0.81	
Clearance Time (s)	4.0							4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0							3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	408		1583					3684	2019	195	4141	
v/s Ratio Prot								0.20		0.01	0.48	
v/s Ratio Perm	0.05		c1.08						0.15			
v/c Ratio	0.44		1.08					0.28	0.20	0.16	0.59	
Uniform Delay, d1	36.9		45.0					4.3	4.0	40.4	3.0	
Progression Factor	1.00		1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.8		46.5					0.2	0.2	0.4	0.6	
Delay (s)	37.6		91.5					4.5	4.2	40.8	3.6	
Level of Service	D		F					A	A	D	A	
Approach Delay (s)		86.4			0.0			4.4			4.1	
Approach LOS		F			A			A			A	

Intersection Summary

HCM Average Control Delay	30.2	HCM Level of Service	C
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	56.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.97		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1583	3433		1583			
Volume (vph)	390	1270	0	0	1020	160	120	0	40	0	0	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	411	1337	0	0	1074	168	126	0	42	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	109	0	0	32	0	0	0
Lane Group Flow (vph)	411	1337	0	0	1074	59	126	0	10	0	0	0
Turn Type	Prot					Perm	custom		custom			
Protected Phases	7	4			8							
Permitted Phases						8	2		2			
Actuated Green, G (s)	20.6	50.0			25.4	25.4	17.2		17.2			
Effective Green, g (s)	21.6	51.0			26.4	26.4	18.2		18.2			
Actuated g/C Ratio	0.29	0.68			0.35	0.35	0.24		0.24			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Grp Cap (vph)	508	2400			1242	556	831		383			
v/s Ratio Prot	c0.23	0.38			c0.30							
v/s Ratio Perm						0.04	c0.04		0.01			
v/c Ratio	0.81	0.56			0.86	0.11	0.15		0.03			
Uniform Delay, d1	24.9	6.3			22.7	16.4	22.4		21.7			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	9.2	0.3			6.5	0.1	0.4		0.1			
Delay (s)	34.1	6.5			29.2	16.5	22.8		21.9			
Level of Service	C	A			C	B	C		C			
Approach Delay (s)		13.0			27.5			22.6			0.0	
Approach LOS		B			C			C			A	

Intersection Summary

HCM Average Control Delay	19.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	75.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	30	1140	60	20	1160	70	190	10	90	340	80	30
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	32	1200	63	21	1221	74	200	11	95	358	84	32
RTOR Reduction (vph)	0	0	37	0	0	0	0	0	83	0	0	25
Lane Group Flow (vph)	32	1200	26	21	1221	74	200	11	12	358	84	7
Turn Type	Prot		Perm	Prot		Free	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free			2			6
Actuated Green, G (s)	1.3	28.9	28.9	1.3	28.9	71.6	10.7	8.0	8.0	17.4	14.7	14.7
Effective Green, g (s)	2.3	29.9	29.9	2.3	29.9	71.6	11.7	9.0	9.0	18.4	15.7	15.7
Actuated g/C Ratio	0.03	0.42	0.42	0.03	0.42	1.00	0.16	0.13	0.13	0.26	0.22	0.22
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	57	1478	661	57	1478	1583	289	445	199	455	776	347
v/s Ratio Prot	c0.02	0.34		0.01	c0.34		0.11	0.00		c0.20	c0.02	
v/s Ratio Perm			0.02			0.05			0.01			0.00
v/c Ratio	0.56	0.81	0.04	0.37	0.83	0.05	0.69	0.02	0.06	0.79	0.11	0.02
Uniform Delay, d1	34.2	18.4	12.3	33.9	18.5	0.0	28.3	27.5	27.6	24.8	22.4	21.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	12.0	3.5	0.0	4.0	3.9	0.1	7.0	0.0	0.1	8.7	0.1	0.0
Delay (s)	46.2	21.9	12.4	37.9	22.5	0.1	35.2	27.5	27.7	33.5	22.4	21.9
Level of Service	D	C	B	D	C	A	D	C	C	C	C	C
Approach Delay (s)		22.0			21.4			32.6			30.8	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	24.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	71.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.95		1.00	0.95			0.95	1.00
Frt				1.00	1.00		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.95		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1682		1770	3539			3539	1583
Flt Permitted				0.95	0.95		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1682		1770	3539			3539	1583
Volume (vph)	0	0	0	1180	0	10	120	100	0	0	260	40
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	1242	0	11	126	105	0	0	274	42
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	32
Lane Group Flow (vph)	0	0	0	661	591	0	126	105	0	0	274	10
Turn Type				Perm			Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8								6
Actuated Green, G (s)				29.5	29.5		4.8	22.5			13.7	13.7
Effective Green, g (s)				30.5	30.5		5.8	23.5			14.7	14.7
Actuated g/C Ratio				0.51	0.51		0.10	0.39			0.24	0.24
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				855	855		171	1386			867	388
v/s Ratio Prot							c0.07	0.03			c0.08	
v/s Ratio Perm				c0.39	0.35							0.01
v/c Ratio				0.77	0.69		0.74	0.08			0.32	0.03
Uniform Delay, d1				11.9	11.2		26.4	11.4			18.5	17.2
Progression Factor				1.00	1.00		1.10	0.45			1.00	1.00
Incremental Delay, d2				4.4	2.4		15.2	0.1			1.0	0.1
Delay (s)				16.3	13.6		44.3	5.2			19.5	17.3
Level of Service				B	B		D	A			B	B
Approach Delay (s)		0.0			15.0			26.5			19.2	
Approach LOS		A			B			C			B	

Intersection Summary

HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		1.00					0.95	1.00	1.00	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		1583					3539	1583	1770	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		1583					3539	1583	1770	3539	
Volume (vph)	40	0	390	0	0	0	0	180	180	40	1430	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	0	411	0	0	0	0	189	189	42	1505	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	42	0	411	0	0	0	0	189	189	42	1505	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	3.2		60.0					33.6	60.0	11.2	48.8	
Effective Green, g (s)	4.2		60.0					34.6	60.0	12.2	49.8	
Actuated g/C Ratio	0.07		1.00					0.58	1.00	0.20	0.83	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	124		1583					2041	1583	360	2937	
v/s Ratio Prot								0.05		0.02	c0.43	
v/s Ratio Perm	0.02		c0.26						0.12			
v/c Ratio	0.34		0.26					0.09	0.12	0.12	0.51	
Uniform Delay, d1	26.6		0.0					5.7	0.0	19.5	1.5	
Progression Factor	1.00		1.00					1.00	1.00	1.44	2.44	
Incremental Delay, d2	1.6		0.4					0.1	0.2	0.1	0.5	
Delay (s)	28.2		0.4					5.8	0.2	28.2	4.2	
Level of Service	C		A					A	A	C	A	
Approach Delay (s)		3.0			0.0			3.0			4.8	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	4.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	10	820	400	30	750	90	80	130	10	40	410	10
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	863	421	32	789	95	84	137	11	42	432	11
RTOR Reduction (vph)	0	0	254	0	0	56	0	0	8	0	0	8
Lane Group Flow (vph)	11	863	167	32	789	39	84	137	3	42	432	3
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	0.9	21.5	21.5	1.9	22.5	22.5	4.0	15.3	15.3	2.1	13.4	13.4
Effective Green, g (s)	1.9	22.5	22.5	2.9	23.5	23.5	5.0	16.3	16.3	3.1	14.4	14.4
Actuated g/C Ratio	0.03	0.40	0.40	0.05	0.41	0.41	0.09	0.29	0.29	0.05	0.25	0.25
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	59	1402	627	90	1464	655	156	1016	454	97	897	401
v/s Ratio Prot	0.01	c0.24		c0.02	0.22		c0.05	0.04		0.02	c0.12	
v/s Ratio Perm			0.11			0.02			0.00			0.00
v/c Ratio	0.19	0.62	0.27	0.36	0.54	0.06	0.54	0.13	0.01	0.43	0.48	0.01
Uniform Delay, d1	26.7	13.7	11.6	26.0	12.6	10.0	24.8	15.0	14.5	26.0	18.0	15.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.5	0.8	0.2	2.4	0.4	0.0	3.5	0.1	0.0	3.1	0.4	0.0
Delay (s)	28.2	14.5	11.8	28.5	12.9	10.0	28.3	15.1	14.5	29.1	18.4	15.9
Level of Service	C	B	B	C	B	B	C	B	B	C	B	B
Approach Delay (s)		13.7			13.2			19.9			19.3	
Approach LOS		B			B			B			B	

Intersection Summary

HCM Average Control Delay	15.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	56.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.91	0.95	0.97	0.95			0.86	1.00
Frt				1.00	0.87	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1465	1504	3433	3539			6408	1583
Flt Permitted				0.95	0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1465	1504	3433	3539			6408	1583
Volume (vph)	0	0	0	210	0	430	970	800	0	0	690	500
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	221	0	453	1021	842	0	0	726	526
RTOR Reduction (vph)	0	0	0	0	170	170	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	187	85	62	1021	842	0	0	726	526
Turn Type				Perm		Perm	Prot					Free
Protected Phases					8		5	2			6	
Permitted Phases				8		8						Free
Actuated Green, G (s)				16.4	16.4	16.4	44.5	75.6			27.1	100.0
Effective Green, g (s)				17.4	17.4	17.4	45.5	76.6			28.1	100.0
Actuated g/C Ratio				0.17	0.17	0.17	0.46	0.77			0.28	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				292	255	262	1562	2711			1801	1583
v/s Ratio Prot							c0.30	0.24			c0.11	
v/s Ratio Perm				c0.11	0.06	0.04						0.33
v/c Ratio				0.64	0.33	0.24	0.65	0.31			0.40	0.33
Uniform Delay, d1				38.4	36.2	35.6	21.1	3.6			29.1	0.0
Progression Factor				1.00	1.00	1.00	0.68	0.57			1.00	1.00
Incremental Delay, d2				4.7	0.8	0.5	0.9	0.3			0.7	0.6
Delay (s)				43.1	37.0	36.0	15.2	2.3			29.8	0.6
Level of Service				D	D	D	B	A			C	A
Approach Delay (s)		0.0			38.4			9.4			17.5	
Approach LOS		A			D			A			B	

Intersection Summary

HCM Average Control Delay	17.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		0.88					0.86	1.00	0.97	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		2787					6408	1583	3433	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		2787					6408	1583	3433	3539	
Volume (vph)	250	0	1360	0	0	0	0	1520	580	110	790	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	263	0	1432	0	0	0	0	1600	611	116	832	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	263	0	1432	0	0	0	0	1600	611	116	832	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	19.0		100.0					60.4	100.0	8.6	73.0	
Effective Green, g (s)	20.0		100.0					61.4	100.0	9.6	74.0	
Actuated g/C Ratio	0.20		1.00					0.61	1.00	0.10	0.74	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	354		2787					3935	1583	330	2619	
v/s Ratio Prot								0.25		0.03	0.24	
v/s Ratio Perm	c0.15		c0.51						0.39			
v/c Ratio	0.74		0.51					0.41	0.39	0.35	0.32	
Uniform Delay, d1	37.6		0.0					9.9	0.0	42.3	4.4	
Progression Factor	1.00		1.00					1.00	1.00	0.55	4.23	
Incremental Delay, d2	8.2		0.7					0.3	0.7	0.6	0.3	
Delay (s)	45.8		0.7					10.2	0.7	24.0	19.0	
Level of Service	D		A					B	A	C	B	
Approach Delay (s)		7.7			0.0			7.6			19.6	
Approach LOS		A			A			A			B	

Intersection Summary

HCM Average Control Delay	10.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97	0.91	0.88	0.97	0.86		0.86	0.86	1.00	0.94	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	3433	5085	2787	3433	6268		1522	4780	1583	4990	3520	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	3433	5085	2787	3433	6268		1522	4780	1583	4990	3520	
Volume (vph)	240	1950	910	180	1530	260	320	670	100	770	810	30
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	253	2053	958	189	1611	274	337	705	105	811	853	32
RTOR Reduction (vph)	0	0	565	0	31	0	0	0	75	0	2	0
Lane Group Flow (vph)	253	2053	393	189	1854	0	251	791	30	811	883	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			
Actuated Green, G (s)	9.0	40.0	40.0	5.0	36.0		16.0	16.0	16.0	23.0	23.0	
Effective Green, g (s)	10.0	41.0	41.0	6.0	37.0		17.0	17.0	17.0	24.0	24.0	
Actuated g/C Ratio	0.10	0.41	0.41	0.06	0.37		0.17	0.17	0.17	0.24	0.24	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	343	2085	1143	206	2319		259	813	269	1198	845	
v/s Ratio Prot	c0.07	c0.40		c0.06	0.30		0.16	c0.17		0.16	c0.25	
v/s Ratio Perm			0.14						0.02			
v/c Ratio	0.74	0.98	0.34	0.92	0.80		0.97	0.97	0.11	0.68	1.04	
Uniform Delay, d1	43.7	29.2	20.3	46.8	28.2		41.2	41.3	35.1	34.5	38.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	8.0	16.4	0.8	40.0	2.0		46.8	24.9	0.2	1.5	43.2	
Delay (s)	51.8	45.6	21.1	86.8	30.2		88.0	66.2	35.3	36.0	81.2	
Level of Service	D	D	C	F	C		F	E	D	D	F	
Approach Delay (s)		38.9			35.4			68.1			59.6	
Approach LOS		D			D			E			E	

Intersection Summary

HCM Average Control Delay	46.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	94.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Volume (vph)	260	980	160	340	1490	560	170	1760	310	410	1750	120
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	274	1032	168	358	1568	589	179	1853	326	432	1842	126
RTOR Reduction (vph)	0	0	78	0	0	176	0	0	111	0	0	73
Lane Group Flow (vph)	274	1032	90	358	1568	413	179	1853	215	432	1842	53
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	6.0	23.0	23.0	10.0	27.0	27.0	4.0	31.0	31.0	10.0	37.0	37.0
Effective Green, g (s)	7.0	24.0	24.0	11.0	28.0	28.0	5.0	32.0	32.0	11.0	38.0	38.0
Actuated g/C Ratio	0.08	0.27	0.27	0.12	0.31	0.31	0.06	0.36	0.36	0.12	0.42	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	267	1356	422	420	1582	492	191	1808	563	420	2147	668
v/s Ratio Prot	c0.08	0.20		c0.10	c0.31		0.05	c0.36		0.13	c0.36	
v/s Ratio Perm			0.06			0.26			0.14			0.03
v/c Ratio	1.03	0.76	0.21	0.85	0.99	0.84	0.94	1.02	0.38	1.03	0.86	0.08
Uniform Delay, d1	41.5	30.4	25.7	38.7	30.9	28.9	42.3	29.0	21.6	39.5	23.6	15.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	62.0	2.6	0.3	15.3	20.4	12.2	46.9	27.7	2.0	51.4	4.7	0.2
Delay (s)	103.5	32.9	25.9	54.0	51.3	41.1	89.3	56.7	23.6	90.9	28.3	15.8
Level of Service	F	C	C	D	D	D	F	E	C	F	C	B
Approach Delay (s)		45.3			49.3			54.6			38.9	
Approach LOS		D			D			D			D	

Intersection Summary

HCM Average Control Delay	47.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	95.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3492		1770	1863	1583	1770	3508		1770	3512	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3492		1770	1863	1583	1770	3508		1770	3512	
Volume (vph)	80	410	40	90	440	120	70	1120	70	150	1280	70
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	84	432	42	95	463	126	74	1179	74	158	1347	74
RTOR Reduction (vph)	0	8	0	0	0	91	0	5	0	0	4	0
Lane Group Flow (vph)	84	466	0	95	463	35	74	1248	0	158	1417	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	4.0	21.7		6.3	24.0	24.0	3.2	37.9		9.0	43.7	
Effective Green, g (s)	5.0	22.7		7.3	25.0	25.0	4.2	38.9		10.0	44.7	
Actuated g/C Ratio	0.06	0.25		0.08	0.28	0.28	0.05	0.43		0.11	0.49	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	97	872		142	512	435	82	1501		195	1727	
v/s Ratio Prot	c0.05	0.13		0.05	c0.25		0.04	0.36		c0.09	c0.40	
v/s Ratio Perm						0.02						
v/c Ratio	0.87	0.53		0.67	0.90	0.08	0.90	0.83		0.81	0.82	
Uniform Delay, d1	42.6	29.5		40.6	31.8	24.4	43.1	23.1		39.5	19.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	50.6	0.6		11.3	19.3	0.1	67.3	5.5		21.8	4.5	
Delay (s)	93.2	30.2		52.0	51.1	24.5	110.5	28.6		61.4	24.2	
Level of Service	F	C		D	D	C	F	C		E	C	
Approach Delay (s)		39.6			46.3			33.2			27.9	
Approach LOS		D			D			C			C	

Intersection Summary

HCM Average Control Delay	34.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	90.9	Sum of lost time (s)	6.0
Intersection Capacity Utilization	82.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Util. Factor	1.00	1.00	1.00			0.86	0.86		1.00	0.95		
Frt	1.00	1.00	0.85			1.00	0.98		1.00	0.98		
Flt Protected	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1583			1522	4679		1770	3465		
Flt Permitted	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1863	1583			1522	4679		1770	3465		
Volume (vph)	105	460	220	90	10	290	680	140	270	615	100	40
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	124	541	259	106	12	341	800	165	318	724	118	47
RTOR Reduction (vph)	0	0	11	0	0	0	19	0	0	0	0	0
Lane Group Flow (vph)	124	541	354	0	0	317	982	0	318	842	0	0
Turn Type	Split		Perm		Split	Split			Split			Split
Protected Phases	4	4			8	8	8		2	2		6
Permitted Phases			4									
Actuated Green, G (s)	24.0	24.0	24.0			20.0	20.0		23.0	23.0		
Effective Green, g (s)	25.0	25.0	25.0			21.0	21.0		24.0	24.0		
Actuated g/C Ratio	0.18	0.18	0.18			0.15	0.15		0.17	0.17		
Clearance Time (s)	4.0	4.0	4.0			4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	316	333	283			228	702		303	594		
v/s Ratio Prot	0.07	c0.29				0.21	c0.21		0.18	c0.24		
v/s Ratio Perm			0.22									
v/c Ratio	0.39	1.62	1.25			1.39	1.40		1.05	1.42		
Uniform Delay, d1	50.8	57.5	57.5			59.5	59.5		58.0	58.0		
Progression Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.8	294.5	139.2			200.3	188.3		65.3	197.7		
Delay (s)	51.6	352.0	196.7			259.8	247.8		123.3	255.7		
Level of Service	D	F	F			F	F		F	F		
Approach Delay (s)		260.8					250.7			219.4		
Approach LOS		F					F			F		

Intersection Summary

HCM Average Control Delay	258.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.59		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	133.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.86	0.86		1.00	1.00	0.88	
Frt	1.00	0.98		1.00	1.00	0.85	
Flt Protected	0.95	0.99		0.95	0.95	1.00	
Satd. Flow (prot)	1522	4689		1770	1770	2787	
Flt Permitted	0.95	0.99		0.95	0.95	1.00	
Satd. Flow (perm)	1522	4689		1770	1770	2787	
Volume (vph)	390	620	90	80	700	490	10
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	459	729	106	94	824	576	12
RTOR Reduction (vph)	0	9	0	0	0	1	0
Lane Group Flow (vph)	324	1008	0	94	824	587	0
Turn Type		Prot		Prot	Prot		
Protected Phases	6	6		1	1		
Permitted Phases						1	
Actuated Green, G (s)	20.0	20.0		33.0	33.0	33.0	
Effective Green, g (s)	21.0	21.0		34.0	34.0	34.0	
Actuated g/C Ratio	0.15	0.15		0.24	0.24	0.24	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	228	703		430	430	677	
v/s Ratio Prot	0.21	c0.21		0.05	c0.47		
v/s Ratio Perm						0.21	
v/c Ratio	1.42	1.43		0.22	1.92	0.87	
Uniform Delay, d1	59.5	59.5		42.4	53.0	50.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2	213.2	203.1		0.3	420.9	11.3	
Delay (s)	272.7	262.6		42.6	473.9	62.2	
Level of Service	F	F		D	F	E	
Approach Delay (s)		265.1			286.2		
Approach LOS		F			F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		5085	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		5085	1583
Volume (vph)	0	0	0	990	0	170	0	1320	1000	0	1630	400
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	1042	0	179	0	1389	1053	0	1716	421
RTOR Reduction (vph)	0	0	0	0	0	12	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1042	0	167	0	1389	1053	0	1716	421
Turn Type				Prot		custom			Free			Free
Protected Phases				3				2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				33.6		33.6		48.4	90.0		48.4	90.0
Effective Green, g (s)				34.6		34.6		49.4	90.0		49.4	90.0
Actuated g/C Ratio				0.38		0.38		0.55	1.00		0.55	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1320		609		2791	1583		2791	1583
v/s Ratio Prot				c0.30				0.27			0.34	
v/s Ratio Perm						0.11			c0.67			0.27
v/c Ratio				0.79		0.27		0.50	0.67		0.61	0.27
Uniform Delay, d1				24.5		19.1		12.6	0.0		13.8	0.0
Progression Factor				1.00		1.00		0.85	1.00		1.00	1.00
Incremental Delay, d2				3.2		0.2		0.5	1.9		1.0	0.4
Delay (s)				27.7		19.3		11.2	1.9		14.8	0.4
Level of Service				C		B		B	A		B	A
Approach Delay (s)		0.0			26.5			7.2			12.0	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	13.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1583					5085	1583		5085	1583
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1583					5085	1583		5085	1583
Volume (vph)	150	0	100	0	0	0	0	2250	1220	0	1720	840
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	158	0	105	0	0	0	0	2368	1284	0	1811	884
RTOR Reduction (vph)	0	0	21	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	158	0	84	0	0	0	0	2368	1284	0	1811	884
Turn Type	Prot		custom						Free			Free
Protected Phases	7							2			6	
Permitted Phases			7						Free			Free
Actuated Green, G (s)	10.0		10.0					72.0	90.0		72.0	90.0
Effective Green, g (s)	11.0		11.0					73.0	90.0		73.0	90.0
Actuated g/C Ratio	0.12		0.12					0.81	1.00		0.81	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	420		193					4125	1583		4125	1583
v/s Ratio Prot	0.05							0.47			0.36	
v/s Ratio Perm			0.05						c0.81			0.56
v/c Ratio	0.38		0.43					0.57	0.81		0.44	0.56
Uniform Delay, d1	36.3		36.6					3.0	0.0		2.5	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.23	1.00
Incremental Delay, d2	0.6		1.6					0.6	4.6		0.2	1.0
Delay (s)	36.9		38.2					3.6	4.6		3.3	1.0
Level of Service	D		D					A	A		A	A
Approach Delay (s)		37.4			0.0			4.0			2.6	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	4.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	54.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0			3.0	3.0		3.0	3.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.92			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1681	1592			5085	1583		5085	1583
Flt Permitted				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1681	1592			5085	1583		5085	1583
Volume (vph)	0	0	0	870	0	290	0	1850	640	0	1490	410
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	916	0	305	0	1947	674	0	1568	432
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	644	576	0	0	1947	674	0	1568	432
Turn Type				Perm					Free			Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				34.3	34.3			37.7	80.0		37.7	80.0
Effective Green, g (s)				35.3	35.3			38.7	80.0		38.7	80.0
Actuated g/C Ratio				0.44	0.44			0.48	1.00		0.48	1.00
Clearance Time (s)				4.0	4.0			4.0			4.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				742	702			2460	1583		2460	1583
v/s Ratio Prot								c0.38			0.31	
v/s Ratio Perm				c0.38	0.36				0.43			0.27
v/c Ratio				0.87	0.82			0.79	0.43		0.64	0.27
Uniform Delay, d1				20.2	19.6			17.3	0.0		15.4	0.0
Progression Factor				1.00	1.00			0.68	1.00		1.00	1.00
Incremental Delay, d2				10.5	7.6			2.0	0.6		1.3	0.4
Delay (s)				30.8	27.2			13.6	0.6		16.7	0.4
Level of Service				C	C			B	A		B	A
Approach Delay (s)		0.0			29.1			10.3			13.2	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	75.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.87	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	0.99	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1460	1504					5085	1583		5085	1583
Flt Permitted	0.95	0.99	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1460	1504					5085	1583		5085	1583
Volume (vph)	300	0	510	0	0	0	0	2180	470	0	2040	230
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	316	0	537	0	0	0	0	2295	495	0	2147	242
RTOR Reduction (vph)	0	4	4	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	285	295	265	0	0	0	0	2295	495	0	2147	242
Turn Type	Split		Perm						Free			Free
Protected Phases	4	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	21.3	21.3	21.3					50.7	80.0		50.7	80.0
Effective Green, g (s)	22.3	22.3	22.3					51.7	80.0		51.7	80.0
Actuated g/C Ratio	0.28	0.28	0.28					0.65	1.00		0.65	1.00
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)	469	407	419					3286	1583		3286	1583
v/s Ratio Prot	0.17	c0.20						c0.45			0.42	
v/s Ratio Perm			0.18						0.31			0.15
v/c Ratio	0.61	0.73	0.63					0.70	0.31		0.65	0.15
Uniform Delay, d1	25.1	26.1	25.3					9.1	0.0		8.7	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		1.45	1.00
Incremental Delay, d2	2.2	6.3	3.1					1.3	0.5		0.7	0.1
Delay (s)	27.3	32.4	28.4					10.4	0.5		13.3	0.1
Level of Service	C	C	C					B	A		B	A
Approach Delay (s)		29.4			0.0			8.6			12.0	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM Average Control Delay	12.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	67.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.91		0.97	0.91	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		3539	1583		3539	1583	1770	5085		3433	5085	1583
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		3539	1583		3539	1583	1770	5085		3433	5085	1583
Volume (vph)	0	150	60	0	450	100	390	1250	0	100	1380	60
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	158	63	0	474	105	411	1316	0	105	1453	63
RTOR Reduction (vph)	0	0	0	0	0	84	0	0	0	0	0	0
Lane Group Flow (vph)	0	158	63	0	474	21	411	1316	0	105	1453	63
Turn Type			Free			Perm	Prot		Free	Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free			8			Free			Free
Actuated Green, G (s)		14.3	77.7		14.3	14.3	21.1	48.3		3.1	30.3	77.7
Effective Green, g (s)		15.3	77.7		15.3	15.3	22.1	49.3		4.1	31.3	77.7
Actuated g/C Ratio		0.20	1.00		0.20	0.20	0.28	0.63		0.05	0.40	1.00
Clearance Time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		697	1583		697	312	503	3226		181	2048	1583
v/s Ratio Prot		0.04			c0.13		c0.23	0.26		0.03	c0.29	
v/s Ratio Perm			0.04			0.01						0.04
v/c Ratio		0.23	0.04		0.68	0.07	0.82	0.41		0.58	0.71	0.04
Uniform Delay, d1		26.2	0.0		28.9	25.4	25.9	7.0		36.0	19.4	0.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		0.2	0.0		2.7	0.1	9.9	0.4		4.7	2.1	0.0
Delay (s)		26.4	0.0		31.7	25.5	35.8	7.4		40.6	21.5	0.0
Level of Service		C	A		C	C	D	A		D	C	A
Approach Delay (s)		18.9			30.5			14.2			21.9	
Approach LOS		B			C			B			C	

Intersection Summary

HCM Average Control Delay	19.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	77.7	Sum of lost time (s)	9.0
Intersection Capacity Utilization	70.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.86	0.91	0.91	0.91		0.97	0.91	0.91		0.91	1.00
Frt	1.00	0.88	0.85	1.00	0.99		1.00	0.93	0.85		1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.98		0.95	1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1393	2882	1610	3293		3433	3140	1441		5085	1583
Flt Permitted	0.95	0.99	1.00	0.95	0.98		0.95	1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1393	2882	1610	3293		3433	3140	1441		5085	1583
Volume (vph)	280	0	870	885	572	72	200	470	1490	0	880	370
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	295	0	916	932	602	76	211	495	1568	0	926	389
RTOR Reduction (vph)	0	96	35	0	6	0	0	193	0	0	0	303
Lane Group Flow (vph)	238	212	630	523	1081	0	211	780	1090	0	926	86
Turn Type	custom		custom	Split			Prot		Free			Perm
Protected Phases	4	4	4	8	8		5	2			6	
Permitted Phases	4		5						Free			6
Actuated Green, G (s)	17.0	17.0	22.0	33.0	33.0		5.0	28.0	90.0		19.0	19.0
Effective Green, g (s)	18.0	18.0	24.0	34.0	34.0		6.0	29.0	90.0		20.0	20.0
Actuated g/C Ratio	0.20	0.20	0.27	0.38	0.38		0.07	0.32	1.00		0.22	0.22
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	336	279	865	608	1244		229	1012	1441		1130	352
v/s Ratio Prot	0.14	0.15	0.15	0.32	c0.33		0.06	0.25			0.18	
v/s Ratio Perm			0.07						c0.76			0.05
v/c Ratio	0.71	0.76	0.73	0.86	0.87		0.92	0.77	0.76		0.82	0.25
Uniform Delay, d1	33.6	34.0	30.0	25.8	25.9		41.8	27.5	0.0		33.3	28.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	11.9	17.6	5.3	14.8	8.4		42.1	5.7	3.8		6.7	1.7
Delay (s)	45.5	51.5	35.4	40.6	34.4		83.8	33.2	3.8		40.0	30.5
Level of Service	D	D	D	D	C		F	C	A		D	C
Approach Delay (s)		41.5			36.4			23.8			37.1	
Approach LOS		D			D			C			D	

Intersection Summary

HCM Average Control Delay	33.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97		1.00					0.91	0.88	0.97	0.91	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433		1583					5085	2787	3433	5085	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433		1583					5085	2787	3433	5085	
Volume (vph)	240	0	600	0	0	0	0	1920	590	310	1890	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	253	0	632	0	0	0	0	2021	621	326	1989	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	249	0	0	0
Lane Group Flow (vph)	253	0	632	0	0	0	0	2021	372	326	1989	0
Turn Type	custom		Free						Perm	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						2			
Actuated Green, G (s)	11.7		90.0					52.9	52.9	13.4	70.3	
Effective Green, g (s)	12.7		90.0					53.9	53.9	14.4	71.3	
Actuated g/C Ratio	0.14		1.00					0.60	0.60	0.16	0.79	
Clearance Time (s)	4.0							4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0							3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	484		1583					3045	1669	549	4028	
v/s Ratio Prot								c0.40		c0.09	0.39	
v/s Ratio Perm	c0.07		0.40						0.13			
v/c Ratio	0.52		0.40					0.66	0.22	0.59	0.49	
Uniform Delay, d1	35.8		0.0					12.0	8.4	35.1	3.2	
Progression Factor	1.00		1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.0		0.8					1.2	0.3	1.7	0.4	
Delay (s)	36.9		0.8					13.2	8.7	36.8	3.6	
Level of Service	D		A					B	A	D	A	
Approach Delay (s)		11.1			0.0			12.1			8.3	
Approach LOS		B			A			B			A	

Intersection Summary

HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	62.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.97		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1583	3433		1583			
Volume (vph)	210	1550	0	0	1730	250	280	0	40	0	0	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	221	1632	0	0	1821	263	295	0	42	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	111	0	0	33	0	0	0
Lane Group Flow (vph)	221	1632	0	0	1821	152	295	0	9	0	0	0
Turn Type	Prot					Perm	custom		custom			
Protected Phases	7	4			8							
Permitted Phases						8	2		2			
Actuated Green, G (s)	9.0	55.0			42.0	42.0	17.0		17.0			
Effective Green, g (s)	10.0	56.0			43.0	43.0	18.0		18.0			
Actuated g/C Ratio	0.12	0.70			0.54	0.54	0.22		0.22			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Grp Cap (vph)	221	2477			1902	851	772		356			
v/s Ratio Prot	c0.12	0.46			c0.51							
v/s Ratio Perm						0.10	c0.09		0.01			
v/c Ratio	1.00	0.66			0.96	0.18	0.38		0.03			
Uniform Delay, d1	35.0	6.7			17.6	9.5	26.3		24.2			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	60.5	0.6			12.0	0.1	1.4		0.1			
Delay (s)	95.5	7.3			29.7	9.6	27.7		24.3			
Level of Service	F	A			C	A	C		C			
Approach Delay (s)		17.8			27.1			27.3			0.0	
Approach LOS		B			C			C			A	

Intersection Summary

HCM Average Control Delay	23.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	50	1340	40	30	1360	580	330	10	50	360	50	50
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	53	1411	42	32	1432	611	347	11	53	379	53	53
RTOR Reduction (vph)	0	0	22	0	0	0	0	0	48	0	0	47
Lane Group Flow (vph)	53	1411	20	32	1432	611	347	11	5	379	53	6
Turn Type	Prot		Perm	Prot		Free	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free			2			6
Actuated Green, G (s)	2.3	35.7	35.7	1.5	34.9	78.5	17.5	6.4	6.4	18.9	7.8	7.8
Effective Green, g (s)	3.3	36.7	36.7	2.5	35.9	78.5	18.5	7.4	7.4	19.9	8.8	8.8
Actuated g/C Ratio	0.04	0.47	0.47	0.03	0.46	1.00	0.24	0.09	0.09	0.25	0.11	0.11
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	74	1655	740	56	1618	1583	417	334	149	449	397	177
v/s Ratio Prot	c0.03	0.40		0.02	c0.40		0.20	0.00		c0.21	0.01	
v/s Ratio Perm			0.01			c0.39			0.00			0.00
v/c Ratio	0.72	0.85	0.03	0.57	0.89	0.39	0.83	0.03	0.03	0.84	0.13	0.03
Uniform Delay, d1	37.1	18.5	11.3	37.5	19.4	0.0	28.5	32.3	32.3	27.8	31.4	31.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	27.9	4.5	0.0	13.3	6.2	0.7	13.3	0.0	0.1	13.5	0.2	0.1
Delay (s)	65.0	23.0	11.3	50.8	25.6	0.7	41.8	32.3	32.4	41.4	31.6	31.1
Level of Service	E	C	B	D	C	A	D	C	C	D	C	C
Approach Delay (s)		24.1			18.7			40.3			39.2	
Approach LOS		C			B			D			D	

Intersection Summary

HCM Average Control Delay	24.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	78.5	Sum of lost time (s)	9.0
Intersection Capacity Utilization	74.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.95		1.00	0.95			0.95	1.00
Frt				1.00	0.95		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.97		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1627		1770	3539			3539	1583
Flt Permitted				0.95	0.97		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1627		1770	3539			3539	1583
Volume (vph)	0	0	0	320	10	70	470	1340	0	0	180	70
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	337	11	74	495	1411	0	0	189	74
RTOR Reduction (vph)	0	0	0	0	36	0	0	0	0	0	0	53
Lane Group Flow (vph)	0	0	0	213	173	0	495	1411	0	0	189	21
Turn Type				Perm			Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8								6
Actuated Green, G (s)				12.1	12.1		20.1	39.9			15.8	15.8
Effective Green, g (s)				13.1	13.1		21.1	40.9			16.8	16.8
Actuated g/C Ratio				0.22	0.22		0.35	0.68			0.28	0.28
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				367	355		622	2412			991	443
v/s Ratio Prot							c0.28	c0.40			0.05	
v/s Ratio Perm				c0.13	0.11							0.01
v/c Ratio				0.58	0.49		0.80	0.58			0.19	0.05
Uniform Delay, d1				21.0	20.5		17.5	5.1			16.4	15.8
Progression Factor				1.00	1.00		1.26	1.18			1.00	1.00
Incremental Delay, d2				2.3	1.1		5.3	0.8			0.4	0.2
Delay (s)				23.3	21.6		27.4	6.8			16.9	16.0
Level of Service				C	C		C	A			B	B
Approach Delay (s)		0.0			22.5			12.1			16.6	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	14.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	66.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		1.00					0.95	1.00	1.00	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		1583					3539	1583	1770	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		1583					3539	1583	1770	3539	
Volume (vph)	10	0	140	0	0	0	0	1790	1090	60	420	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	0	147	0	0	0	0	1884	1147	63	442	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	11	0	147	0	0	0	0	1884	1147	63	442	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	1.4		60.0					41.0	60.0	5.6	50.6	
Effective Green, g (s)	2.4		60.0					42.0	60.0	6.6	51.6	
Actuated g/C Ratio	0.04		1.00					0.70	1.00	0.11	0.86	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	71		1583					2477	1583	195	3044	
v/s Ratio Prot								0.53		0.04	0.12	
v/s Ratio Perm	0.01		0.09						c0.72			
v/c Ratio	0.15		0.09					0.76	0.72	0.32	0.15	
Uniform Delay, d1	27.8		0.0					5.8	0.0	24.6	0.7	
Progression Factor	1.00		1.00					1.00	1.00	0.64	1.38	
Incremental Delay, d2	1.0		0.1					2.3	2.9	0.9	0.1	
Delay (s)	28.8		0.1					8.0	2.9	16.6	1.0	
Level of Service	C		A					A	A	B	A	
Approach Delay (s)		2.1			0.0			6.1			3.0	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	5.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	66.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	
Volume (vph)	10	630	380	10	1080	80	350	640	10	80	180	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	663	400	11	1137	84	368	674	11	84	189	0
RTOR Reduction (vph)	0	0	248	0	0	52	0	0	7	0	0	0
Lane Group Flow (vph)	11	663	152	11	1137	32	368	674	4	84	189	0
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	0.7	24.8	24.8	0.7	24.8	24.8	16.6	22.0	22.0	4.6	10.0	
Effective Green, g (s)	1.7	25.8	25.8	1.7	25.8	25.8	17.6	23.0	23.0	5.6	11.0	
Actuated g/C Ratio	0.02	0.38	0.38	0.02	0.38	0.38	0.26	0.34	0.34	0.08	0.16	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	44	1341	600	44	1341	600	457	1195	535	146	572	
v/s Ratio Prot	c0.01	0.19		0.01	c0.32		c0.21	c0.19		0.05	0.05	
v/s Ratio Perm			0.10			0.02			0.00			
v/c Ratio	0.25	0.49	0.25	0.25	0.85	0.05	0.81	0.56	0.01	0.58	0.33	
Uniform Delay, d1	32.6	16.2	14.5	32.6	19.4	13.4	23.6	18.4	15.0	30.1	25.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.0	0.3	0.2	3.0	5.2	0.0	9.9	0.6	0.0	5.4	0.3	
Delay (s)	35.5	16.5	14.8	35.5	24.5	13.4	33.6	19.1	15.0	35.5	25.6	
Level of Service	D	B	B	D	C	B	C	B	B	D	C	
Approach Delay (s)		16.0			23.9			24.1			28.7	
Approach LOS		B			C			C			C	

Intersection Summary

HCM Average Control Delay	22.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	68.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	64.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

20. Ventura & Gonzales

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	150	.05	280	.09*
NBT	3	4800	1090	.23*	1190	.25
NBR	1	1600	400	.25	360	.23
SBL	2	3200	160	.05*	300	.09
SBT	3	4800	1030	.21	1540	.32*
SBR	1	1600	160	.10	100	.06
EBL	2	3200	280	.09*	270	.08
EBT	2	3200	280	.09	460	.14*
EBR	1	1600	110	.07	140	.09
WBL	2	3200	270	.08	750	.23*
WBT	2	3200	330	.10*	560	.18
WBR	1	1600	90	.06	130	.08
TOTAL CAPACITY UTILIZATION				**.47**		**.78**

24. Ventura & Wooley

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	230	.14	250	.16
NBT	3	4800	850	.19*	1090	.25*
NBR	0	0	70		100	
SBL	2	3200	500	.16*	560	.18*
SBT	3	4800	740	.16	1080	.25
SBR	0	0	50		130	
EBL	2	3200	200	.06	240	.08*
EBT	3	4800	690	.18*	850	.19
EBR	0	0	160		50	
WBL	2	3200	170	.05*	400	.13
WBT	3	4800	500	.13	1130	.27*
WBR	0	0	120		180	
TOTAL CAPACITY UTILIZATION				**.58**		**.78**

45. Oxnard & Vineyard

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	80	.03	160	.05
NBT	3	4800	1180	.25*	1930	.40*
NBR	2	3200	790	.25	860	.27
SBL	2	3200	100	.03*	180	.06*
SBT	4	6400	1180	.19	1520	.28
SBR	0	0	60		280	
EBL	1.5		260	{.15}*	310	{.15}*
EBT	2.5	6400	720	.15	620	.15
EBR	1	1600	140	.09	100	.06
WBL	3	4800	410	.09	770	.16
WBT	2	3200	350	.11*	810	.26*
WBR	0	0	10		30	
TOTAL CAPACITY UTILIZATION				**.54**		**.87**

46. Oxnard & Gonzales

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	120	.04*	180	.06
NBT	3	4800	1150	.24	1660	.35*
NBR	1	1600	290	.18	310	.19
SBL	2	3200	370	.12	410	.13*
SBT	3	4800	1520	.32*	1800	.38
SBR	1	1600	60	.04	120	.08
EBL	2	3200	290	.09	270	.08*
EBT	3	4800	900	.19*	860	.18
EBR	1	1600	60	.04	150	.09
WBL	2	3200	260	.08*	320	.10
WBT	3	4800	780	.16	1340	.28*
WBR	1	1600	390	.24	570	.36
TOTAL CAPACITY UTILIZATION				**.63**		**.84**

49. Oxnard & 5th St

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03	70	.04*
NBT	2	3200	890	.30*	1140	.38
NBR	0	0	70		80	
SBL	1	1600	160	.10*	140	.09
SBT	2	3200	1110	.35	1320	.43*
SBR	0	0	10		70	
EBL	1	1600	40	.03	70	.04*
EBT	2	3200	440	.14*	390	.13
EBR	0	0	10		30	
WBL	1	1600	40	.03*	80	.05
WBT	1	1600	200	.13	390	.24*
WBR	1	1600	70	.04	100	.06

TOTAL CAPACITY UTILIZATION .57 .75

61. Rose & Auto Center

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	110	.07*	200	.13*
NBT	2	3200	620	.19	700	.22
NBR	1	1600	380	.24	500	.31
SBL	1	1600	220	.14	180	.11
SBT	2	3200	1160	.38*	630	.20*
SBR	0	0	40		20	
EBL	1	1600	40	.03	40	.03
EBT	1	1600	140	.09*	200	.13*
EBR	1	1600	190	.12	210	.13
WBL	2.5		170		760	
WBT	0.5	4800	50	.05*	210	.20*
WBR	1	1600	60	.04	230	.14

Note: Assumes E/W Split Phasing
Note: Assumes Right-Turn Overlap for NBR

TOTAL CAPACITY UTILIZATION .59 .66

65. Rose & Gonzales

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	280	.09*	400	.13*
NBT	3	4800	1010	.21	1320	.28
NBR	1	1600	510	.32	410	.26
SBL	2	3200	230	.07	250	.08
SBT	4	6400	1250	.20*	1630	.25*
SBR	1	1600	310	.19	550	.34
EBL	2	3200	360	.11	470	.15*
EBT	3	4800	930	.19*	590	.12
EBR	1	1600	370	.23	310	.19
WBL	2	3200	150	.05*	310	.10
WBT	4	6400	410	.06	1460	.23*
WBR	1	1600	200	.13	500	.31
Right Turn Adjustment			NBR	.06*		

TOTAL CAPACITY UTILIZATION .59 .76

66. Rose & Camino del Sol

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	170	.05*	220	.07*
NBT	3	4800	1360	.30	1620	.35
NBR	0	0	70		60	
SBL	2	3200	230	.07	100	.03
SBT	3	4800	1790	.40*	1680	.38*
SBR	0	0	130		160	
EBL	2	3200	200	.06	190	.06*
EBT	3	4800	400	.13*	220	.06
EBR	0	0	210	.13	90	
WBL	2	3200	170	.05*	350	.11
WBT	2	3200	120	.04	490	.15*
WBR	1	1600	130	.08	330	.21

TOTAL CAPACITY UTILIZATION .63 .66

68. Rose & 5th

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	10	.01*	80	.05*
NBT	3	4800	1310	.27	1690	.35
NBR	1	1600	280	.18	130	.08
SBL	1	1600	20	.01	10	.01
SBT	3	4800	1830	.38*	1780	.37*
SBR	1	1600	180	.11	210	.13
EBL	2	3200	190	.06	250	.08
EBT	2	3200	670	.21*	620	.19*
EBR	1	1600	60	.04	110	.07
WBL	2	3200	180	.06*	400	.13*
WBT	2	3200	230	.07	720	.23
WBR	1	1600	10	.01	150	.09
TOTAL CAPACITY UTILIZATION				**.66**		**.74**

69. Rose & Wooley

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	60	.04*	90	.06*
NBT	3	4800	1250	.26	1300	.27
NBR	1	1600	100	.06	60	.04
SBL	1	1600	30	.02	30	.02
SBT	3	4800	1620	.34*	1700	.35*
SBR	f		390		440	
EBL	2	3200	370	.12	480	.15*
EBT	2	3200	530	.18*	340	.13
EBR	0	0	60		70	
WBL	2	3200	80	.03*	160	.05
WBT	2	3200	140	.05	580	.19*
WBR	0	0	10		30	
TOTAL CAPACITY UTILIZATION				**.59**		**.75**

71. Rose & Oxnard

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	200	.13*	390	.24*
NBT	3	4800	1230	.26	1260	.26
NBR	f		10		0	
SBL	2	3200	70	.02	70	.02
SBT	3	4800	1290	.27*	1350	.28*
SBR	f		40		60	
EBL	0	0	0		0	
EBT	2	3200	230	.07*	140	.04
EBR	f		190		60	
WBL	0	0	0		0	
WBT	2	3200	90	.03	430	.13*
WBR	1	1600	50	.03	90	.06
TOTAL CAPACITY UTILIZATION				**.47**		**.65**

72. Rose & Channel Islands

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	290	.09*	440	.14*
NBT	3	4800	1080	.23	1410	.29
NBR	1	1600	270	.17	190	.12
SBL	1	1600	70	.04	140	.09
SBT	3	4800	1590	.33*	1340	.28*
SBR	1	1600	190	.12	290	.18
EBL	2	3200	440	.14	250	.08
EBT	3	4800	510	.16*	450	.14*
EBR	0	0	250		220	
WBL	2	3200	330	.10*	390	.12*
WBT	3	4800	440	.09	780	.16
WBR	0	0	10		10	
TOTAL CAPACITY UTILIZATION				**.68**		**.68**

73. Rose & Bard

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	60	.04*	100	.06
NBT	3	4800	1370	.29	1610	.34*
NBR	0	0	10		30	
SBL	1	1600	130	.08	140	.09*
SBT	3	4800	1810	.41*	1090	.32
SBR	0	0	160		450	
EBL	1	1600	250	.16*	170	.11*
EBT	2	3200	170	.07	240	.11
EBR	0	0	60		100	
WBL	1	1600	30	.02	20	.01
WBT	2	3200	140	.09*	400	.18*
WBR	0	0	170	.11	180	

TOTAL CAPACITY UTILIZATION .70 .72

74. Rose & Pleasant Valley

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	90	.03*	180	.06
NBT	3	4800	1000	.24	1370	.36*
NBR	0	0	160		380	
SBL	2	3200	240	.08	120	.04*
SBT	3	4800	1420	.38*	840	.25
SBR	0	0	380		340	
EBL	2	3200	310	.10	250	.08*
EBT	3	4800	750	.16*	680	.14
EBR	1	1600	140	.09	130	.08
WBL	2	3200	400	.13*	270	.08
WBT	3	4800	730	.18	920	.20*
WBR	0	0	140		60	

TOTAL CAPACITY UTILIZATION .70 .68

77. Dupont & Channel Islands

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	80	.05*	80	.05*
SBT	0	0	0		0	
SBR	1	1600	180	.11	150	.09
EBL	1	1600	20	.01	70	.04*
EBT	2	3200	770	.24*	740	.23
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	650	.20	960	.30*
WBR	1	1600	50	.03	160	.10
Right Turn Adjustment			SBR	.03*	SBR	.01*

TOTAL CAPACITY UTILIZATION .32 .40

78. Bard & Pleasant Valley

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	10	.01	10	.01
NBT	1	1600	10	.02*	10	.01*
NBR	0	0	20		10	
SBL	1	1600	180	.11*	300	.19*
SBT	1	1600	10	.01	10	.01
SBR	1	1600	40	.03	30	.02
EBL	1	1600	10	.01*	50	.03*
EBT	2	3200	890	.28	1270	.40
EBR	1	1600	10	.01	10	.01
WBL	1	1600	30	.02	10	.01
WBT	2	3200	1110	.46*	1010	.43*
WBR	0	0	360		370	

TOTAL CAPACITY UTILIZATION .60 .66

81. Rice & Gonzales

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	310	.10*	450	.14
NBT	2	3200	1730	.54	2300	.72*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	2350	.49*	2020	.42
SBR	1	1600	780	.49	550	.34
EBL	2	3200	260	.08*	250	.08*
EBT	0	0	0		0	
EBR	1	1600	230	.14	400	.25
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .67 .80

82. Rice & Camino Del Sol

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	110	.03*	60	.02
NBT	3	4800	1450	.30	2090	.44*
NBR	1	1600	10	.01	60	.04
SBL	2	3200	160	.05	480	.15*
SBT	3	4800	1670	.35*	1950	.41
SBR	1	1600	680	.43	310	.19
EBL	2	3200	350	.11*	500	.16*
EBT	3	4800	250	.05	650	.14
EBR	1	1600	20	.01	50	.03
WBL	2	3200	10	.00	10	.00
WBT	3	4800	200	.04*	140	.03*
WBR	1	1600	260	.16	50	.03
Right Turn Adjustment			WBR	.06*		

TOTAL CAPACITY UTILIZATION .59 .78

85. Rice & Wooley

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03*	90	.06*
NBT	3	4800	1320	.28	1920	.40
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1450	.30*	1930	.40*
SBR	1	1600	310	.19	560	.35
EBL	2	3200	780	.24*	690	.22*
EBT	0	0	0		0	
EBR	1	1600	90	.06	90	.06
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .57 .68

86. Rice & Channel Islands

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03*	210	.13
NBT	2	3200	700	.22	1440	.45*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1060	.33*	810	.25
SBR	f		390		1050	
EBL	2	3200	730	.23*	480	.15*
EBT	0	0	0		0	
EBR	1	1600	130	.08	70	.04
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .59 .60

87. SR-1/Rice NB & Pleasant Vly

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	100	.03*	280	.09*
NBT	0	0	0		0	
NBR	1	1600	20	.01	40	.03
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	360	.23*	220	.14*
EBT	2	3200	1310	.41	1470	.46
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	1000	.31*	1740	.54*
WBR	1	1600	150	.09	240	.15

TOTAL CAPACITY UTILIZATION .57 .77

88. Oxnard & Pleasant Valley

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	170	.11	280	.18*
NBT	2	3200	10	.00*	10	.00
NBR	1	1600	80	.05	40	.03
SBL	1	1600	320	.20*	300	.19
SBT	2	3200	70	.02	40	.01*
SBR	1	1600	30	.02	40	.03
EBL	1	1600	40	.03*	40	.03*
EBT	2	3200	1180	.37	1340	.42
EBR	1	1600	50	.03	20	.01
WBL	1	1600	20	.01	30	.02
WBT	2	3200	1160	.36*	1420	.44*
WBR	f		40		520	
Right Turn Adjustment			NBR	.03*		

TOTAL CAPACITY UTILIZATION .62 .66

89. Rice & Hueneme

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	30	.02*	10	.01*
SBT	0	0	0		0	
SBR	f		710		270	
EBL	2	3200	340	.11*	730	.23*
EBT	2	3200	550	.17	850	.27
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	660	.21*	840	.26*
WBR	f		10		50	

TOTAL CAPACITY UTILIZATION .34 .50

92. Del Norte & Camino Del Sol

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	110	.07*	110	.07
NBT	3	4800	680	.14	1170	.25*
NBR	0	0	10		10	
SBL	1	1600	30	.02	60	.04*
SBT	3	4800	700	.20*	720	.20
SBR	0	0	270		260	
EBL	2	3200	140	.04*	500	.16*
EBT	1	1600	10	.01	10	.01
EBR	1	1600	10	.01	10	.01
WBL	1	1600	10	.01	10	.01
WBT	1	1600	10	.01*	10	.01*
WBR	0	0	10		10	

TOTAL CAPACITY UTILIZATION .32 .46

94. Del Norte & 5th St

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	10		0	
SBL	2	3200	70	.02*	60	.02*
SBT	0	0	0		0	
SBR	2	3200	410	.13	470	.15
EBL	1	1600	280	.18	380	.24*
EBT	2	3200	970	.30*	830	.26
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	340	.11	1160	.36*
WBR	1	1600	50	.03	110	.07

TOTAL CAPACITY UTILIZATION .32 .62

100. Rose & Hueneme

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	70	.04*	300	.19
NBT	3	4800	260	.05	840	.18*
NBR	f		100		590	
SBL	1	1600	10	.01	130	.08*
SBT	4	6400	810	.14*	350	.07
SBR	0	0	70		140	.09
EBL	1	1600	100	.06*	60	.04*
EBT	2	3200	710	.22	890	.28
EBR	f		700		120	
WBL	1	1600	330	.21	60	.04
WBT	2	3200	1240	.39*	1050	.33*
WBR	1	1600	10	.01	10	.01

TOTAL CAPACITY UTILIZATION .63 .63

101. Oxnard & Channel Islands

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	40	.03*	280	.18
NBT	2	3200	80	.03	650	.20*
NBR	1	1600	10	.01	10	.01
SBL	1	1600	30	.02	70	.04*
SBT	2	3200	360	.11*	140	.04
SBR	1	1600	10	.01	10	.01
EBL	1	1600	10	.01	10	.01*
EBT	2	3200	770	.24*	650	.20
EBR	1	1600	390	.24	320	.20
WBL	1	1600	20	.01*	10	.01
WBT	2	3200	720	.23	1030	.32*
WBR	1	1600	100	.06	50	.03

TOTAL CAPACITY UTILIZATION .39 .57

121. Rice & Bypass

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	1970	.41*	1730	.36
NBR	1	1600	720	.45	680	.43
SBL	2	3200	10	.00	10	.00
SBT	3	4800	1530	.32	2030	.42*
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	640	.20*	840	.26*
WBT	0	0	0		0	
WBR	f		10		10	

TOTAL CAPACITY UTILIZATION .61 .68

122. Bypass & Fifth

2030 No Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	70	.04*	130	.08*
NBT	0	0	0		0	
NBR	1	1600	650	.41	560	.35
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3200	660	.21*	780	.24*
EBR	1	1600	20	.01	10	.01
WBL	2	3200	630	.20*	840	.26*
WBT	2	3200	390	.12	550	.17
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.22*	NBR	.07*
TOTAL CAPACITY UTILIZATION				**.67**		**.65**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.91	0.95	0.97	0.95			0.86	1.00
Frt				1.00	0.85	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1441	1504	3433	3539			6408	1583
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1441	1504	3433	3539			6408	1583
Volume (vph)	0	0	0	70	0	320	790	460	0	0	460	640
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	74	0	337	832	484	0	0	484	674
RTOR Reduction (vph)	0	0	0	0	150	151	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	74	18	18	832	484	0	0	484	674
Turn Type				Perm		Perm	Prot					Free
Protected Phases					8		5	2			6	
Permitted Phases				8		8						Free
Actuated Green, G (s)				9.6	9.6	9.6	40.9	82.4			37.5	100.0
Effective Green, g (s)				10.6	10.6	10.6	41.9	83.4			38.5	100.0
Actuated g/C Ratio				0.11	0.11	0.11	0.42	0.83			0.38	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				178	153	159	1438	2952			2467	1583
v/s Ratio Prot							c0.24	0.14			0.08	
v/s Ratio Perm				0.04	0.01	0.01						c0.43
v/c Ratio				0.42	0.12	0.11	0.58	0.16			0.20	0.43
Uniform Delay, d1				41.8	40.5	40.4	22.3	1.6			20.5	0.0
Progression Factor				1.00	1.00	1.00	0.69	0.03			1.00	1.00
Incremental Delay, d2				1.6	0.3	0.3	0.5	0.1			0.2	0.8
Delay (s)				43.4	40.8	40.8	15.9	0.2			20.6	0.8
Level of Service				D	D	D	B	A			C	A
Approach Delay (s)		0.0			41.2			10.1			9.1	
Approach LOS		A			D			B			A	

Intersection Summary

HCM Average Control Delay	14.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		0.88					0.86	1.00	0.97	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		2787					6408	1583	3433	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		2787					6408	1583	3433	3539	
Volume (vph)	180	0	1420	0	0	0	0	1070	330	150	380	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	189	0	1495	0	0	0	0	1126	347	158	400	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	189	0	1495	0	0	0	0	1126	347	158	400	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	15.1		100.0					63.3	100.0	9.6	76.9	
Effective Green, g (s)	16.1		100.0					64.3	100.0	10.6	77.9	
Actuated g/C Ratio	0.16		1.00					0.64	1.00	0.11	0.78	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	285		2787					4120	1583	364	2757	
v/s Ratio Prot								0.18		0.05	0.11	
v/s Ratio Perm	c0.11		c0.54						0.22			
v/c Ratio	0.66		0.54					0.27	0.22	0.43	0.15	
Uniform Delay, d1	39.4		0.0					7.7	0.0	41.9	2.8	
Progression Factor	1.00		1.00					1.00	1.00	0.62	1.04	
Incremental Delay, d2	5.7		0.7					0.2	0.3	0.8	0.1	
Delay (s)	45.1		0.7					7.9	0.3	26.7	3.0	
Level of Service	D		A					A	A	C	A	
Approach Delay (s)		5.7			0.0			6.1			9.7	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	6.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97	0.91	0.88	0.97	0.86		0.86	0.86	1.00	0.94	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	5085	2787	3433	6361		1522	4798	1583	4990	3524	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	5085	2787	3433	6361		1522	4798	1583	4990	3524	
Volume (vph)	80	1180	790	100	1180	60	260	720	140	410	350	10
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	84	1242	832	105	1242	63	274	758	147	432	368	11
RTOR Reduction (vph)	0	0	583	0	10	0	0	0	111	0	3	0
Lane Group Flow (vph)	84	1242	249	105	1295	0	248	784	36	432	376	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			
Actuated Green, G (s)	3.0	18.4	18.4	3.0	18.4		14.7	14.7	14.7	12.6	12.6	
Effective Green, g (s)	4.0	19.4	19.4	4.0	19.4		15.7	15.7	15.7	13.6	13.6	
Actuated g/C Ratio	0.06	0.30	0.30	0.06	0.30		0.24	0.24	0.24	0.21	0.21	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	212	1525	836	212	1907		369	1164	384	1049	741	
v/s Ratio Prot	0.02	c0.24		c0.03	0.20		0.16	c0.16		0.09	c0.11	
v/s Ratio Perm			0.09						0.02			
v/c Ratio	0.40	0.81	0.30	0.50	0.68		0.67	0.67	0.09	0.41	0.51	
Uniform Delay, d1	29.2	21.0	17.4	29.4	19.9		22.2	22.2	19.0	22.1	22.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.2	4.9	0.9	1.8	2.0		4.8	1.6	0.1	0.3	0.5	
Delay (s)	30.4	25.9	18.3	31.2	21.9		26.9	23.7	19.1	22.4	23.1	
Level of Service	C	C	B	C	C		C	C	B	C	C	
Approach Delay (s)		23.1			22.6			23.8			22.7	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	23.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	64.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Volume (vph)	290	900	60	260	780	390	120	1150	290	370	1520	60
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	305	947	63	274	821	411	126	1211	305	389	1600	63
RTOR Reduction (vph)	0	0	48	0	0	201	0	0	186	0	0	37
Lane Group Flow (vph)	305	947	15	274	821	210	126	1211	119	389	1600	26
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	7.0	15.7	15.7	7.0	15.7	15.7	3.2	20.0	20.0	11.3	28.1	28.1
Effective Green, g (s)	8.0	16.7	16.7	8.0	16.7	16.7	4.2	21.0	21.0	12.3	29.1	29.1
Actuated g/C Ratio	0.11	0.24	0.24	0.11	0.24	0.24	0.06	0.30	0.30	0.18	0.42	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	392	1213	378	392	1213	378	206	1526	475	603	2114	658
v/s Ratio Prot	c0.09	c0.19		0.08	0.16		0.04	0.24		c0.11	c0.31	
v/s Ratio Perm			0.01			0.13			0.08			0.02
v/c Ratio	0.78	0.78	0.04	0.70	0.68	0.56	0.61	0.79	0.25	0.65	0.76	0.04
Uniform Delay, d1	30.1	24.9	20.5	29.8	24.2	23.4	32.1	22.5	18.5	26.8	17.4	12.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.4	3.3	0.0	5.4	1.5	1.8	5.3	4.3	1.3	2.4	2.6	0.1
Delay (s)	39.5	28.3	20.5	35.2	25.7	25.2	37.4	26.8	19.8	29.2	20.0	12.3
Level of Service	D	C	C	D	C	C	D	C	B	C	C	B
Approach Delay (s)		30.5			27.3			26.3			21.5	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	25.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	70.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3527		1770	1863	1583	1770	3500		1770	3534	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3527		1770	1863	1583	1770	3500		1770	3534	
Volume (vph)	40	440	10	40	200	70	40	890	70	160	1110	10
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	463	11	42	211	74	42	937	74	168	1168	11
RTOR Reduction (vph)	0	2	0	0	0	61	0	6	0	0	1	0
Lane Group Flow (vph)	42	472	0	42	211	13	42	1005	0	168	1178	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	2.2	14.2		2.2	14.2	14.2	2.7	39.9		12.7	49.9	
Effective Green, g (s)	3.2	15.2		3.2	15.2	15.2	3.7	40.9		13.7	50.9	
Actuated g/C Ratio	0.04	0.18		0.04	0.18	0.18	0.04	0.48		0.16	0.60	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	67	631		67	333	283	77	1684		285	2116	
v/s Ratio Prot	c0.02	c0.13		0.02	0.11		0.02	c0.29		c0.09	0.33	
v/s Ratio Perm						0.01						
v/c Ratio	0.63	0.75		0.63	0.63	0.05	0.55	0.60		0.59	0.56	
Uniform Delay, d1	40.3	33.1		40.3	32.3	28.9	39.8	16.1		33.0	10.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	16.9	4.9		16.9	3.9	0.1	7.7	1.6		3.1	1.1	
Delay (s)	57.2	37.9		57.2	36.2	29.0	47.5	17.6		36.1	11.3	
Level of Service	E	D		E	D	C	D	B		D	B	
Approach Delay (s)		39.5			37.3			18.8			14.4	
Approach LOS		D			D			B			B	

Intersection Summary

HCM Average Control Delay	22.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Util. Factor	1.00	1.00	1.00			0.86	0.86		1.00	0.95		
Frt	1.00	1.00	0.85			1.00	0.98		1.00	0.98		
Flt Protected	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1583			1522	4713		1770	3459		
Flt Permitted	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1863	1583			1522	4713		1770	3459		
Volume (vph)	125	650	260	185	10	80	340	50	245	450	80	100
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	147	765	306	218	12	94	400	59	288	529	94	118
RTOR Reduction (vph)	0	0	17	0	0	0	12	0	0	0	0	0
Lane Group Flow (vph)	147	765	507	0	0	106	447	0	288	623	0	0
Turn Type	Split		Perm		Split	Split			Split			Split
Protected Phases	4	4			8	8	8		2	2		6
Permitted Phases			4									
Actuated Green, G (s)	40.0	40.0	40.0			15.9	15.9		23.0	23.0		
Effective Green, g (s)	41.0	41.0	41.0			16.9	16.9		24.0	24.0		
Actuated g/C Ratio	0.27	0.27	0.27			0.11	0.11		0.16	0.16		
Clearance Time (s)	4.0	4.0	4.0			4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	484	510	433			172	531		283	554		
v/s Ratio Prot	0.08	c0.41				0.07	c0.09		0.16	c0.18		
v/s Ratio Perm			0.32									
v/c Ratio	0.30	1.50	1.17			0.62	0.84		1.02	1.12		
Uniform Delay, d1	43.1	54.4	54.4			63.4	65.2		63.0	63.0		
Progression Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.4	235.1	98.6			6.4	11.6		58.1	77.3		
Delay (s)	43.5	289.6	153.1			69.8	76.8		121.0	140.3		
Level of Service	D	F	F			E	E		F	F		
Approach Delay (s)		214.6					75.5			134.2		
Approach LOS		F					E			F		

Intersection Summary

HCM Average Control Delay	183.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.31		
Actuated Cycle Length (s)	149.9	Sum of lost time (s)	15.0
Intersection Capacity Utilization	113.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.86	0.86		1.00	1.00	0.88	
Frt	1.00	0.99		1.00	1.00	0.85	
Flt Protected	0.95	0.99		0.95	0.95	1.00	
Satd. Flow (prot)	1522	4722		1770	1770	2787	
Flt Permitted	0.95	0.99		0.95	0.95	1.00	
Satd. Flow (perm)	1522	4722		1770	1770	2787	
Volume (vph)	310	615	45	100	440	250	10
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	365	724	53	118	518	294	12
RTOR Reduction (vph)	0	4	0	0	0	2	0
Lane Group Flow (vph)	304	952	0	118	518	304	0
Turn Type		Prot		Prot	Prot		
Protected Phases	6	6		1	1		
Permitted Phases						1	
Actuated Green, G (s)	21.0	21.0		30.0	30.0	30.0	
Effective Green, g (s)	22.0	22.0		31.0	31.0	31.0	
Actuated g/C Ratio	0.15	0.15		0.21	0.21	0.21	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	223	693		366	366	576	
v/s Ratio Prot	0.20	c0.20		0.07	c0.29		
v/s Ratio Perm						0.11	
v/c Ratio	1.36	1.37		0.32	1.42	0.53	
Uniform Delay, d1	64.0	64.0		50.5	59.4	52.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2	189.6	177.1		0.5	202.4	0.9	
Delay (s)	253.5	241.0		51.0	261.8	53.8	
Level of Service	F	F		D	F	D	
Approach Delay (s)		244.0			167.8		
Approach LOS		F			F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		5085	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		5085	1583
Volume (vph)	0	0	0	710	0	230	0	790	600	0	1600	290
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	747	0	242	0	832	632	0	1684	305
RTOR Reduction (vph)	0	0	0	0	0	86	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	747	0	156	0	832	632	0	1684	305
Turn Type				Prot		custom			Free			Free
Protected Phases				3				2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				25.3		25.3		56.7	90.0		56.7	90.0
Effective Green, g (s)				26.3		26.3		57.7	90.0		57.7	90.0
Actuated g/C Ratio				0.29		0.29		0.64	1.00		0.64	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1003		463		3260	1583		3260	1583
v/s Ratio Prot				c0.22				0.16			c0.33	
v/s Ratio Perm						0.10			0.40			0.19
v/c Ratio				0.74		0.34		0.26	0.40		0.52	0.19
Uniform Delay, d1				28.8		25.0		6.9	0.0		8.7	0.0
Progression Factor				1.00		1.00		0.60	1.00		1.00	1.00
Incremental Delay, d2				3.0		0.4		0.2	0.7		0.6	0.3
Delay (s)				31.9		25.4		4.4	0.7		9.3	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			30.3			2.8			7.9	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	11.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	57.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1583					5085	1583		5085	1583
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1583					5085	1583		5085	1583
Volume (vph)	70	0	270	0	0	0	0	1340	1120	0	1690	640
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	74	0	284	0	0	0	0	1411	1179	0	1779	674
RTOR Reduction (vph)	0	0	8	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	74	0	276	0	0	0	0	1411	1179	0	1779	674
Turn Type	Prot		custom						Free			Free
Protected Phases	7							2			6	
Permitted Phases			7						Free			Free
Actuated Green, G (s)	19.5		19.5					62.5	90.0		62.5	90.0
Effective Green, g (s)	20.5		20.5					63.5	90.0		63.5	90.0
Actuated g/C Ratio	0.23		0.23					0.71	1.00		0.71	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	782		361					3588	1583		3588	1583
v/s Ratio Prot	0.02							0.28			0.35	
v/s Ratio Perm			0.17						c0.74			0.43
v/c Ratio	0.09		0.76					0.39	0.74		0.50	0.43
Uniform Delay, d1	27.4		32.5					5.4	0.0		6.0	0.0
Progression Factor	1.00		1.00					1.00	1.00		0.64	1.00
Incremental Delay, d2	0.1		9.2					0.3	3.2		0.4	0.7
Delay (s)	27.5		41.7					5.7	3.2		4.3	0.7
Level of Service	C		D					A	A		A	A
Approach Delay (s)		38.8			0.0			4.6			3.3	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	6.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0			3.0	3.0		3.0	3.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.92			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1681	1597			5085	1583		5085	1583
Flt Permitted				0.95	0.98			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1681	1597			5085	1583		5085	1583
Volume (vph)	0	0	0	660	0	210	0	980	650	0	1390	160
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	695	0	221	0	1032	684	0	1463	168
RTOR Reduction (vph)	0	0	0	0	30	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	475	411	0	0	1032	684	0	1463	168
Turn Type				Perm					Free			Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				27.5	27.5			44.5	80.0		44.5	80.0
Effective Green, g (s)				28.5	28.5			45.5	80.0		45.5	80.0
Actuated g/C Ratio				0.36	0.36			0.57	1.00		0.57	1.00
Clearance Time (s)				4.0	4.0			4.0			4.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				599	569			2892	1583		2892	1583
v/s Ratio Prot								0.20			c0.29	
v/s Ratio Perm				c0.28	0.26				0.43			0.11
v/c Ratio				0.79	0.72			0.36	0.43		0.51	0.11
Uniform Delay, d1				23.1	22.3			9.3	0.0		10.4	0.0
Progression Factor				1.00	1.00			1.10	1.00		1.00	1.00
Incremental Delay, d2				7.1	4.5			0.3	0.8		0.6	0.1
Delay (s)				30.2	26.9			10.5	0.8		11.1	0.1
Level of Service				C	C			B	A		B	A
Approach Delay (s)		0.0			28.6			6.6			10.0	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	58.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.85	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1442	1504					5085	1583		5085	1583
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1442	1504					5085	1583		5085	1583
Volume (vph)	310	0	620	0	0	0	0	1350	490	0	1770	230
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	326	0	653	0	0	0	0	1421	516	0	1863	242
RTOR Reduction (vph)	0	3	3	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	324	325	324	0	0	0	0	1421	516	0	1863	242
Turn Type	Split		Perm						Free			Free
Protected Phases	4	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	23.6	23.6	23.6					48.4	80.0		48.4	80.0
Effective Green, g (s)	24.6	24.6	24.6					49.4	80.0		49.4	80.0
Actuated g/C Ratio	0.31	0.31	0.31					0.62	1.00		0.62	1.00
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)	517	443	462					3140	1583		3140	1583
v/s Ratio Prot	0.19	c0.23						0.28			c0.37	
v/s Ratio Perm			0.22						0.33			0.15
v/c Ratio	0.63	0.73	0.70					0.45	0.33		0.59	0.15
Uniform Delay, d1	23.8	24.8	24.4					8.1	0.0		9.2	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		0.63	1.00
Incremental Delay, d2	2.4	6.2	4.7					0.5	0.5		0.7	0.2
Delay (s)	26.1	30.9	29.2					8.6	0.5		6.5	0.2
Level of Service	C	C	C					A	A		A	A
Approach Delay (s)		28.8			0.0			6.5			5.8	
Approach LOS		C			A			A			A	

Intersection Summary

HCM Average Control Delay	10.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	66.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3539	1583		3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		3539	1583		3539	1583	1770	5085	1583	3433	5085	1583
Volume (vph)	0	230	190	0	90	50	200	1230	10	70	1290	40
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	242	200	0	95	53	211	1295	11	74	1358	42
RTOR Reduction (vph)	0	0	0	0	0	45	0	0	0	0	0	0
Lane Group Flow (vph)	0	242	200	0	95	8	211	1295	11	74	1358	42
Turn Type			Free			Perm	Prot		Free	Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free			8			Free			Free
Actuated Green, G (s)		9.8	67.9		9.8	9.8	12.9	40.6	67.9	5.5	33.2	67.9
Effective Green, g (s)		10.8	67.9		10.8	10.8	13.9	41.6	67.9	6.5	34.2	67.9
Actuated g/C Ratio		0.16	1.00		0.16	0.16	0.20	0.61	1.00	0.10	0.50	1.00
Clearance Time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		563	1583		563	252	362	3115	1583	329	2561	1583
v/s Ratio Prot		c0.07			0.03		c0.12	0.25		0.02	c0.27	
v/s Ratio Perm			0.13			0.01			0.01			0.03
v/c Ratio		0.43	0.13		0.17	0.03	0.58	0.42	0.01	0.22	0.53	0.03
Uniform Delay, d1		25.8	0.0		24.7	24.1	24.4	6.8	0.0	28.4	11.4	0.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.5	0.2		0.1	0.1	2.4	0.4	0.0	0.3	0.8	0.0
Delay (s)		26.3	0.2		24.8	24.2	26.8	7.2	0.0	28.7	12.2	0.0
Level of Service		C	A		C	C	C	A	A	C	B	A
Approach Delay (s)		14.5			24.6			9.9			12.7	
Approach LOS		B			C			A			B	

Intersection Summary

HCM Average Control Delay	12.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	67.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.86	0.91	0.91	0.91		0.97	0.91	0.91		0.91	1.00
Frt	1.00	0.92	0.85	1.00	1.00		1.00	1.00	0.85		1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.97		0.95	1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1435	2882	1610	3274		3433	3390	1441		5085	1583
Flt Permitted	0.67	0.48	1.00	0.95	0.97		0.95	1.00	1.00		1.00	1.00
Satd. Flow (perm)	1180	701	2882	1610	3274		3433	3390	1441		5085	1583
Volume (vph)	80	0	280	1180	280	10	130	500	500	0	580	110
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	84	0	295	1242	295	11	137	526	526	0	611	116
RTOR Reduction (vph)	0	39	44	0	1	0	0	0	0	0	0	86
Lane Group Flow (vph)	51	37	208	621	926	0	137	526	526	0	611	30
Turn Type	Perm		custom	Split			Prot		Free			Perm
Protected Phases		4	4	8	8		5	2			6	
Permitted Phases	4		5						Free			6
Actuated Green, G (s)	5.0	5.0	9.0	28.0	28.0		4.0	25.0	70.0		17.0	17.0
Effective Green, g (s)	6.0	6.0	11.0	29.0	29.0		5.0	26.0	70.0		18.0	18.0
Actuated g/C Ratio	0.09	0.09	0.16	0.41	0.41		0.07	0.37	1.00		0.26	0.26
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	101	60	453	667	1356		245	1259	1441		1308	407
v/s Ratio Prot			0.04	c0.39	0.28		0.04	c0.16			0.12	
v/s Ratio Perm	0.04	c0.05	0.03						c0.37			0.02
v/c Ratio	0.50	0.61	0.46	0.93	0.89dl		0.56	0.42	0.37		0.47	0.07
Uniform Delay, d1	30.6	30.9	26.8	19.5	16.7		31.4	16.4	0.0		22.0	19.7
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	16.9	38.7	3.3	21.5	2.8		8.9	1.0	0.7		1.2	0.3
Delay (s)	47.5	69.5	30.1	41.1	19.5		40.4	17.4	0.7		23.2	20.0
Level of Service	D	E	C	D	B		D	B	A		C	C
Approach Delay (s)		40.4			28.2			12.7			22.7	
Approach LOS		D			C			B			C	

Intersection Summary			
HCM Average Control Delay	23.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97		1.00					0.91	0.88	0.97	0.91	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433		1583					5085	2787	3433	5085	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433		1583					5085	2787	3433	5085	
Volume (vph)	90	0	1130	0	0	0	0	1040	820	50	1870	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	95	0	1189	0	0	0	0	1095	863	53	1968	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	210	0	0	0
Lane Group Flow (vph)	95	0	1189	0	0	0	0	1095	653	53	1968	0
Turn Type	custom		Free						Perm	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						2			
Actuated Green, G (s)	6.5		90.0					67.1	67.1	4.4	75.5	
Effective Green, g (s)	7.5		90.0					68.1	68.1	5.4	76.5	
Actuated g/C Ratio	0.08		1.00					0.76	0.76	0.06	0.85	
Clearance Time (s)	4.0							4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0							3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	286		1583					3848	2109	206	4322	
v/s Ratio Prot								0.22		0.02	0.39	
v/s Ratio Perm	0.03		c0.75						0.23			
v/c Ratio	0.33		0.75					0.28	0.31	0.26	0.46	
Uniform Delay, d1	38.9		0.0					3.4	3.5	40.4	1.7	
Progression Factor	1.00		1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.7		3.3					0.2	0.4	0.7	0.3	
Delay (s)	39.6		3.3					3.6	3.9	41.1	2.0	
Level of Service	D		A					A	A	D	A	
Approach Delay (s)		6.0			0.0			3.7			3.0	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	4.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	46.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.97		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1583	3433		1583			
Volume (vph)	360	1310	0	0	1000	150	100	0	20	0	0	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	379	1379	0	0	1053	158	105	0	21	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	102	0	0	16	0	0	0
Lane Group Flow (vph)	379	1379	0	0	1053	56	105	0	5	0	0	0
Turn Type	Prot					Perm	custom		custom			
Protected Phases	7	4			8							
Permitted Phases						8	2		2			
Actuated Green, G (s)	19.4	48.6			25.2	25.2	17.2		17.2			
Effective Green, g (s)	20.4	49.6			26.2	26.2	18.2		18.2			
Actuated g/C Ratio	0.28	0.67			0.36	0.36	0.25		0.25			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Grp Cap (vph)	489	2379			1256	562	847		390			
v/s Ratio Prot	c0.21	0.39			c0.30							
v/s Ratio Perm						0.04	c0.03		0.00			
v/c Ratio	0.78	0.58			0.84	0.10	0.12		0.01			
Uniform Delay, d1	24.6	6.5			21.9	15.9	21.6		21.0			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	7.5	0.3			5.1	0.1	0.3		0.1			
Delay (s)	32.1	6.8			26.9	16.0	21.9		21.1			
Level of Service	C	A			C	B	C		C			
Approach Delay (s)		12.3			25.5			21.8			0.0	
Approach LOS		B			C			C			A	

Intersection Summary

HCM Average Control Delay	17.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	73.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	40	1180	50	20	1160	40	170	10	80	320	70	30
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	1242	53	21	1221	42	179	11	84	337	74	32
RTOR Reduction (vph)	0	0	30	0	0	0	0	0	74	0	0	25
Lane Group Flow (vph)	42	1242	23	21	1221	42	179	11	10	337	74	7
Turn Type	Prot		Perm	Prot		Free	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free			2			6
Actuated Green, G (s)	2.1	30.6	30.6	1.4	29.9	72.7	10.3	8.0	8.0	16.7	14.4	14.4
Effective Green, g (s)	3.1	31.6	31.6	2.4	30.9	72.7	11.3	9.0	9.0	17.7	15.4	15.4
Actuated g/C Ratio	0.04	0.43	0.43	0.03	0.43	1.00	0.16	0.12	0.12	0.24	0.21	0.21
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	75	1538	688	58	1504	1583	275	438	196	431	750	335
v/s Ratio Prot	c0.02	c0.35		0.01	0.34		0.10	0.00		c0.19	c0.02	
v/s Ratio Perm			0.01			c0.03			0.01			0.00
v/c Ratio	0.56	0.81	0.03	0.36	0.81	0.03	0.65	0.03	0.05	0.78	0.10	0.02
Uniform Delay, d1	34.1	17.9	11.8	34.4	18.3	0.0	28.8	28.0	28.1	25.7	23.1	22.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.2	3.2	0.0	3.8	3.5	0.0	5.4	0.0	0.1	8.9	0.1	0.0
Delay (s)	43.4	21.1	11.8	38.2	21.8	0.0	34.3	28.0	28.2	34.6	23.1	22.7
Level of Service	D	C	B	D	C	A	C	C	C	C	C	C
Approach Delay (s)		21.5			21.4			32.2			31.9	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	23.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	72.7	Sum of lost time (s)	6.0
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.95		1.00	0.95			0.95	1.00
Frt				1.00	0.98		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.96		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1662		1770	3539			3539	1583
Flt Permitted				0.95	0.96		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1662		1770	3539			3539	1583
Volume (vph)	0	0	0	750	0	50	90	70	0	0	110	20
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	789	0	53	95	74	0	0	116	21
RTOR Reduction (vph)	0	0	0	0	10	0	0	0	0	0	0	14
Lane Group Flow (vph)	0	0	0	443	389	0	95	74	0	0	116	7
Turn Type				Perm			Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8								6
Actuated Green, G (s)				22.1	22.1		6.4	29.9			19.5	19.5
Effective Green, g (s)				23.1	23.1		7.4	30.9			20.5	20.5
Actuated g/C Ratio				0.38	0.38		0.12	0.52			0.34	0.34
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				647	640		218	1823			1209	541
v/s Ratio Prot							c0.05	0.02			c0.03	
v/s Ratio Perm				c0.26	0.23							0.00
v/c Ratio				0.68	0.61		0.44	0.04			0.10	0.01
Uniform Delay, d1				15.4	14.8		24.4	7.2			13.4	13.1
Progression Factor				1.00	1.00		0.72	0.61			1.00	1.00
Incremental Delay, d2				3.0	1.6		1.4	0.0			0.2	0.0
Delay (s)				18.4	16.5		19.0	4.4			13.6	13.1
Level of Service				B	B		B	A			B	B
Approach Delay (s)		0.0			17.5			12.6			13.5	
Approach LOS		A			B			B			B	

Intersection Summary

HCM Average Control Delay	16.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	40.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		1.00					0.95	1.00	1.00	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		1583					3539	1583	1770	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		1583					3539	1583	1770	3539	
Volume (vph)	30	0	570	0	0	0	0	130	130	40	790	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	32	0	600	0	0	0	0	137	137	42	832	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	32	0	600	0	0	0	0	137	137	42	832	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	1.6		60.0					41.0	60.0	5.4	50.4	
Effective Green, g (s)	2.6		60.0					42.0	60.0	6.4	51.4	
Actuated g/C Ratio	0.04		1.00					0.70	1.00	0.11	0.86	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	77		1583					2477	1583	189	3032	
v/s Ratio Prot								0.04		0.02	0.24	
v/s Ratio Perm	0.02		c0.38						0.09			
v/c Ratio	0.42		0.38					0.06	0.09	0.22	0.27	
Uniform Delay, d1	28.0		0.0					2.8	0.0	24.5	0.8	
Progression Factor	1.00		1.00					1.00	1.00	1.61	3.16	
Incremental Delay, d2	3.6		0.7					0.0	0.1	0.5	0.2	
Delay (s)	31.6		0.7					2.9	0.1	40.0	2.7	
Level of Service	C		A					A	A	D	A	
Approach Delay (s)		2.3			0.0			1.5			4.5	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	3.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	40.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	10	770	390	20	720	100	40	80	10	30	360	10
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	811	411	21	758	105	42	84	11	32	379	11
RTOR Reduction (vph)	0	0	244	0	0	61	0	0	8	0	0	8
Lane Group Flow (vph)	11	811	167	21	758	44	42	84	3	32	379	3
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	0.8	19.7	19.7	1.7	20.6	20.6	2.1	11.7	11.7	1.9	11.5	11.5
Effective Green, g (s)	1.8	20.7	20.7	2.7	21.6	21.6	3.1	12.7	12.7	2.9	12.5	12.5
Actuated g/C Ratio	0.04	0.41	0.41	0.05	0.42	0.42	0.06	0.25	0.25	0.06	0.25	0.25
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	62	1436	643	94	1499	670	108	881	394	101	867	388
v/s Ratio Prot	0.01	c0.23		c0.01	0.21		c0.02	0.02		0.02	c0.11	
v/s Ratio Perm			0.11			0.03			0.00			0.00
v/c Ratio	0.18	0.56	0.26	0.22	0.51	0.07	0.39	0.10	0.01	0.32	0.44	0.01
Uniform Delay, d1	23.9	11.7	10.1	23.1	10.8	8.7	23.0	14.7	14.4	23.1	16.3	14.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4	0.5	0.2	1.2	0.3	0.0	2.3	0.0	0.0	1.8	0.4	0.0
Delay (s)	25.3	12.2	10.3	24.4	11.1	8.8	25.4	14.8	14.4	24.9	16.6	14.6
Level of Service	C	B	B	C	B	A	C	B	B	C	B	B
Approach Delay (s)		11.7			11.1			18.0			17.2	
Approach LOS		B			B			B			B	

Intersection Summary

HCM Average Control Delay	12.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	51.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.91	0.95	0.97	0.95			0.86	1.00
Frt				1.00	0.87	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1469	1504	3433	3539			6408	1583
Flt Permitted				0.95	0.99	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1469	1504	3433	3539			6408	1583
Volume (vph)	0	0	0	200	0	390	1050	880	0	0	690	560
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	211	0	411	1105	926	0	0	726	589
RTOR Reduction (vph)	0	0	0	0	144	144	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	175	90	69	1105	926	0	0	726	589
Turn Type				Perm		Perm	Prot					Free
Protected Phases					8		5	2			6	
Permitted Phases				8		8						Free
Actuated Green, G (s)				15.8	15.8	15.8	48.7	76.2			23.5	100.0
Effective Green, g (s)				16.8	16.8	16.8	49.7	77.2			24.5	100.0
Actuated g/C Ratio				0.17	0.17	0.17	0.50	0.77			0.24	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				282	247	253	1706	2732			1570	1583
v/s Ratio Prot							c0.32	0.26			c0.11	
v/s Ratio Perm				c0.10	0.06	0.05						0.37
v/c Ratio				0.62	0.36	0.27	0.65	0.34			0.46	0.37
Uniform Delay, d1				38.6	36.9	36.3	18.7	3.5			32.1	0.0
Progression Factor				1.00	1.00	1.00	0.80	0.60			1.00	1.00
Incremental Delay, d2				4.2	0.9	0.6	0.8	0.3			1.0	0.7
Delay (s)				42.8	37.8	36.9	15.7	2.4			33.1	0.7
Level of Service				D	D	D	B	A			C	A
Approach Delay (s)		0.0			38.9			9.6			18.6	
Approach LOS		A			D			A			B	

Intersection Summary

HCM Average Control Delay	17.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		0.88					0.86	1.00	0.97	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		2787					6408	1583	3433	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		2787					6408	1583	3433	3539	
Volume (vph)	300	0	1410	0	0	0	0	1620	430	110	780	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	316	0	1484	0	0	0	0	1705	453	116	821	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	316	0	1484	0	0	0	0	1705	453	116	821	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	22.0		100.0					57.2	100.0	8.8	70.0	
Effective Green, g (s)	23.0		100.0					58.2	100.0	9.8	71.0	
Actuated g/C Ratio	0.23		1.00					0.58	1.00	0.10	0.71	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	407		2787					3729	1583	336	2513	
v/s Ratio Prot								0.27		0.03	0.23	
v/s Ratio Perm	c0.18		c0.53						0.29			
v/c Ratio	0.78		0.53					0.46	0.29	0.35	0.33	
Uniform Delay, d1	36.1		0.0					11.9	0.0	42.1	5.5	
Progression Factor	1.00		1.00					1.00	1.00	0.79	2.81	
Incremental Delay, d2	9.0		0.7					0.4	0.5	0.5	0.3	
Delay (s)	45.1		0.7					12.3	0.5	33.8	15.7	
Level of Service	D		A					B	A	C	B	
Approach Delay (s)		8.5			0.0			9.8			17.9	
Approach LOS		A			A			A			B	

Intersection Summary

HCM Average Control Delay	10.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97	0.91	0.88	0.97	0.86		0.86	0.86	1.00	0.94	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	3433	5085	2787	3433	6258		1522	4777	1583	4990	3520	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	3433	5085	2787	3433	6258		1522	4777	1583	4990	3520	
Volume (vph)	160	1930	860	180	1520	280	310	620	100	770	810	30
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	168	2032	905	189	1600	295	326	653	105	811	853	32
RTOR Reduction (vph)	0	0	534	0	33	0	0	0	75	0	2	0
Lane Group Flow (vph)	168	2032	371	189	1862	0	236	743	30	811	883	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			
Actuated Green, G (s)	8.7	40.0	40.0	5.0	36.3		16.0	16.0	16.0	23.0	23.0	
Effective Green, g (s)	9.7	41.0	41.0	6.0	37.3		17.0	17.0	17.0	24.0	24.0	
Actuated g/C Ratio	0.10	0.41	0.41	0.06	0.37		0.17	0.17	0.17	0.24	0.24	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	333	2085	1143	206	2334		259	812	269	1198	845	
v/s Ratio Prot	c0.05	c0.40		c0.06	0.30		0.16	c0.16		0.16	c0.25	
v/s Ratio Perm			0.13						0.02			
v/c Ratio	0.50	0.97	0.32	0.92	0.80		0.91	0.92	0.11	0.68	1.04	
Uniform Delay, d1	42.9	29.0	20.1	46.8	28.0		40.8	40.8	35.1	34.5	38.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.2	14.6	0.8	40.0	2.0		33.3	14.7	0.2	1.5	43.2	
Delay (s)	44.1	43.5	20.8	86.8	30.0		74.1	55.5	35.3	36.0	81.2	
Level of Service	D	D	C	F	C		E	E	D	D	F	
Approach Delay (s)		37.0			35.1			57.6			59.6	
Approach LOS		D			D			E			E	

Intersection Summary

HCM Average Control Delay	44.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	92.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Volume (vph)	270	860	150	320	1340	570	180	1660	310	410	1800	120
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	284	905	158	337	1411	600	189	1747	326	432	1895	126
RTOR Reduction (vph)	0	0	78	0	0	176	0	0	113	0	0	73
Lane Group Flow (vph)	284	905	80	337	1411	424	189	1747	213	432	1895	53
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	6.0	23.0	23.0	10.0	27.0	27.0	4.0	31.0	31.0	10.0	37.0	37.0
Effective Green, g (s)	7.0	24.0	24.0	11.0	28.0	28.0	5.0	32.0	32.0	11.0	38.0	38.0
Actuated g/C Ratio	0.08	0.27	0.27	0.12	0.31	0.31	0.06	0.36	0.36	0.12	0.42	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	267	1356	422	420	1582	492	191	1808	563	420	2147	668
v/s Ratio Prot	c0.08	0.18		c0.10	c0.28		0.06	c0.34		0.13	c0.37	
v/s Ratio Perm			0.05			0.27			0.13			0.03
v/c Ratio	1.06	0.67	0.19	0.80	0.89	0.86	0.99	0.97	0.38	1.03	0.88	0.08
Uniform Delay, d1	41.5	29.4	25.5	38.4	29.6	29.2	42.5	28.5	21.6	39.5	23.9	15.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	72.9	1.3	0.2	10.6	6.8	14.4	61.4	14.6	1.9	51.4	5.7	0.2
Delay (s)	114.4	30.7	25.7	49.0	36.3	43.6	103.9	43.0	23.5	90.9	29.6	15.8
Level of Service	F	C	C	D	D	D	F	D	C	F	C	B
Approach Delay (s)		47.8			40.0			45.3			39.7	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM Average Control Delay	42.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	90.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3501		1770	1863	1583	1770	3504		1770	3512	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3501		1770	1863	1583	1770	3504		1770	3512	
Volume (vph)	70	390	30	80	390	100	70	1140	80	140	1320	70
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	74	411	32	84	411	105	74	1200	84	147	1389	74
RTOR Reduction (vph)	0	6	0	0	0	78	0	6	0	0	4	0
Lane Group Flow (vph)	74	437	0	84	411	27	74	1278	0	147	1459	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)	3.1	18.5		6.1	21.5	21.5	3.1	38.3		8.7	43.9	
Effective Green, g (s)	4.1	19.5		7.1	22.5	22.5	4.1	39.3		9.7	44.9	
Actuated g/C Ratio	0.05	0.22		0.08	0.26	0.26	0.05	0.45		0.11	0.51	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	83	779		143	479	407	83	1572		196	1800	
v/s Ratio Prot	c0.04	0.12		0.05	c0.22		c0.04	0.36		c0.08	c0.42	
v/s Ratio Perm						0.02						
v/c Ratio	0.89	0.56		0.59	0.86	0.07	0.89	0.81		0.75	0.81	
Uniform Delay, d1	41.5	30.2		38.8	31.0	24.6	41.5	21.0		37.8	17.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	63.7	0.9		6.0	14.1	0.1	63.7	4.7		14.8	4.1	
Delay (s)	105.2	31.2		44.9	45.2	24.7	105.2	25.7		52.6	21.9	
Level of Service	F	C		D	D	C	F	C		D	C	
Approach Delay (s)		41.8			41.5			30.0			24.7	
Approach LOS		D			D			C			C	

Intersection Summary

HCM Average Control Delay	31.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	87.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Util. Factor	1.00	1.00	1.00			0.86	0.86		1.00	0.95		
Frt	1.00	1.00	0.85			1.00	0.98		1.00	0.98		
Flt Protected	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1583			1522	4705		1770	3459		
Flt Permitted	0.95	1.00	1.00			0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1863	1583			1522	4705		1770	3459		
Volume (vph)	95	450	210	55	10	290	670	100	240	675	120	50
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	112	529	247	65	12	341	788	118	282	794	141	59
RTOR Reduction (vph)	0	0	7	0	0	0	12	0	0	0	0	0
Lane Group Flow (vph)	112	529	305	0	0	303	944	0	282	935	0	0
Turn Type	Split		Perm		Split	Split			Split			Split
Protected Phases	4	4			8	8	8		2	2		6
Permitted Phases			4									
Actuated Green, G (s)	24.0	24.0	24.0			20.0	20.0		23.0	23.0		
Effective Green, g (s)	25.0	25.0	25.0			21.0	21.0		24.0	24.0		
Actuated g/C Ratio	0.18	0.18	0.18			0.15	0.15		0.17	0.17		
Clearance Time (s)	4.0	4.0	4.0			4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	316	333	283			228	706		303	593		
v/s Ratio Prot	0.06	c0.28				0.20	c0.20		0.16	c0.27		
v/s Ratio Perm			0.19									
v/c Ratio	0.35	1.59	1.08			1.33	1.34		0.93	1.58		
Uniform Delay, d1	50.4	57.5	57.5			59.5	59.5		57.2	58.0		
Progression Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.7	278.7	76.2			175.0	161.3		33.9	267.6		
Delay (s)	51.1	336.2	133.7			234.5	220.8		91.1	325.6		
Level of Service	D	F	F			F	F		F	F		
Approach Delay (s)		236.4					224.1			271.2		
Approach LOS		F					F			F		

Intersection Summary

HCM Average Control Delay	253.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.57		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	132.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.86	0.86		1.00	1.00	0.88	
Frt	1.00	0.99		1.00	1.00	0.85	
Flt Protected	0.95	0.99		0.95	0.95	1.00	
Satd. Flow (prot)	1522	4706		1770	1770	2787	
Flt Permitted	0.95	0.99		0.95	0.95	1.00	
Satd. Flow (perm)	1522	4706		1770	1770	2787	
Volume (vph)	380	685	80	80	640	510	10
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	447	806	94	94	753	600	12
RTOR Reduction (vph)	0	8	0	0	0	1	0
Lane Group Flow (vph)	339	1059	0	94	753	611	0
Turn Type		Prot		Prot	Prot		
Protected Phases	6	6		1	1		
Permitted Phases						1	
Actuated Green, G (s)	20.0	20.0		33.0	33.0	33.0	
Effective Green, g (s)	21.0	21.0		34.0	34.0	34.0	
Actuated g/C Ratio	0.15	0.15		0.24	0.24	0.24	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	228	706		430	430	677	
v/s Ratio Prot	0.22	c0.23		0.05	c0.43		
v/s Ratio Perm						0.22	
v/c Ratio	1.49	1.50		0.22	1.75	0.90	
Uniform Delay, d1	59.5	59.5		42.4	53.0	51.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2	241.0	232.6		0.3	347.5	15.4	
Delay (s)	300.5	292.1		42.6	400.5	66.8	
Level of Service	F	F		D	F	E	
Approach Delay (s)		294.1			237.5		
Approach LOS		F			F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.91	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		5085	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		5085	1583
Volume (vph)	0	0	0	1020	0	140	0	1330	910	0	1630	400
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	1074	0	147	0	1400	958	0	1716	421
RTOR Reduction (vph)	0	0	0	0	0	11	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1074	0	136	0	1400	958	0	1716	421
Turn Type				Prot		custom			Free			Free
Protected Phases				3				2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				34.1		34.1		47.9	90.0		47.9	90.0
Effective Green, g (s)				35.1		35.1		48.9	90.0		48.9	90.0
Actuated g/C Ratio				0.39		0.39		0.54	1.00		0.54	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1339		617		2763	1583		2763	1583
v/s Ratio Prot				c0.31				0.28			0.34	
v/s Ratio Perm						0.09			c0.61			0.27
v/c Ratio				0.80		0.22		0.51	0.61		0.62	0.27
Uniform Delay, d1				24.4		18.3		12.9	0.0		14.2	0.0
Progression Factor				1.00		1.00		0.87	1.00		1.00	1.00
Incremental Delay, d2				3.6		0.2		0.6	1.5		1.1	0.4
Delay (s)				27.9		18.5		11.8	1.5		15.2	0.4
Level of Service				C		B		B	A		B	A
Approach Delay (s)		0.0			26.8			7.6			12.3	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	13.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.97		1.00					0.91	1.00		0.91	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		1583					5085	1583		5085	1583
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		1583					5085	1583		5085	1583
Volume (vph)	160	0	100	0	0	0	0	2170	1210	0	1790	800
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	168	0	105	0	0	0	0	2284	1274	0	1884	842
RTOR Reduction (vph)	0	0	25	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	168	0	80	0	0	0	0	2284	1274	0	1884	842
Turn Type	Prot		custom						Free			Free
Protected Phases	7							2			6	
Permitted Phases			7						Free			Free
Actuated Green, G (s)	10.0		10.0					72.0	90.0		72.0	90.0
Effective Green, g (s)	11.0		11.0					73.0	90.0		73.0	90.0
Actuated g/C Ratio	0.12		0.12					0.81	1.00		0.81	1.00
Clearance Time (s)	4.0		4.0					4.0			4.0	
Vehicle Extension (s)	3.0		3.0					3.0			3.0	
Lane Grp Cap (vph)	420		193					4125	1583		4125	1583
v/s Ratio Prot	0.05							0.45			0.37	
v/s Ratio Perm			0.05						c0.80			0.53
v/c Ratio	0.40		0.41					0.55	0.80		0.46	0.53
Uniform Delay, d1	36.5		36.5					2.9	0.0		2.6	0.0
Progression Factor	1.00		1.00					1.00	1.00		1.10	1.00
Incremental Delay, d2	0.6		1.4					0.5	4.5		0.3	0.9
Delay (s)	37.1		37.9					3.5	4.5		3.1	0.9
Level of Service	D		D					A	A		A	A
Approach Delay (s)		37.4			0.0			3.8			2.4	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	4.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	53.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0			3.0	3.0		3.0	3.0
Lane Util. Factor				0.95	0.95			0.91	1.00		0.91	1.00
Frt				1.00	0.93			1.00	0.85		1.00	0.85
Flt Protected				0.95	0.97			1.00	1.00		1.00	1.00
Satd. Flow (prot)				1681	1608			5085	1583		5085	1583
Flt Permitted				0.95	0.97			1.00	1.00		1.00	1.00
Satd. Flow (perm)				1681	1608			5085	1583		5085	1583
Volume (vph)	0	0	0	1030	0	270	0	1710	560	0	1440	370
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	1084	0	284	0	1800	589	0	1516	389
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	721	645	0	0	1800	589	0	1516	389
Turn Type				Perm					Free			Free
Protected Phases					8			2			6	
Permitted Phases				8					Free			Free
Actuated Green, G (s)				36.5	36.5			35.5	80.0		35.5	80.0
Effective Green, g (s)				37.5	37.5			36.5	80.0		36.5	80.0
Actuated g/C Ratio				0.47	0.47			0.46	1.00		0.46	1.00
Clearance Time (s)				4.0	4.0			4.0			4.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				788	754			2320	1583		2320	1583
v/s Ratio Prot								c0.35			0.30	
v/s Ratio Perm				c0.43	0.40				0.37			0.25
v/c Ratio				0.91	0.86			0.78	0.37		0.65	0.25
Uniform Delay, d1				19.8	18.8			18.3	0.0		16.9	0.0
Progression Factor				1.00	1.00			0.73	1.00		1.00	1.00
Incremental Delay, d2				15.1	9.4			2.0	0.5		1.4	0.4
Delay (s)				34.9	28.2			15.4	0.5		18.3	0.4
Level of Service				C	C			B	A		B	A
Approach Delay (s)		0.0			31.7			11.7			14.6	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	17.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0					3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.91	0.95					0.91	1.00		0.91	1.00
Frt	1.00	0.85	0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1442	1504					5085	1583		5085	1583
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1442	1504					5085	1583		5085	1583
Volume (vph)	270	0	540	0	0	0	0	1990	440	0	2190	190
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	284	0	568	0	0	0	0	2095	463	0	2305	200
RTOR Reduction (vph)	0	3	3	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	282	283	281	0	0	0	0	2095	463	0	2305	200
Turn Type	Split		Perm						Free			Free
Protected Phases	4	4						2			6	
Permitted Phases			4						Free			Free
Actuated Green, G (s)	20.9	20.9	20.9					51.1	80.0		51.1	80.0
Effective Green, g (s)	21.9	21.9	21.9					52.1	80.0		52.1	80.0
Actuated g/C Ratio	0.27	0.27	0.27					0.65	1.00		0.65	1.00
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)	460	395	412					3312	1583		3312	1583
v/s Ratio Prot	0.17	c0.20						0.41			c0.45	
v/s Ratio Perm			0.19						0.29			0.13
v/c Ratio	0.61	0.72	0.68					0.63	0.29		0.70	0.13
Uniform Delay, d1	25.4	26.2	25.9					8.3	0.0		8.9	0.0
Progression Factor	1.00	1.00	1.00					1.00	1.00		1.37	1.00
Incremental Delay, d2	2.4	6.1	4.6					0.9	0.5		0.8	0.1
Delay (s)	27.8	32.3	30.6					9.2	0.5		12.9	0.1
Level of Service	C	C	C					A	A		B	A
Approach Delay (s)		30.2			0.0			7.6			11.9	
Approach LOS		C			A			A			B	

Intersection Summary

HCM Average Control Delay	12.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.91		0.97	0.91	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		3539	1583		3539	1583	1770	5085		3433	5085	1583
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		3539	1583		3539	1583	1770	5085		3433	5085	1583
Volume (vph)	0	140	60	0	430	90	390	1260	0	70	1350	60
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	147	63	0	453	95	411	1326	0	74	1421	63
RTOR Reduction (vph)	0	0	0	0	0	77	0	0	0	0	0	0
Lane Group Flow (vph)	0	147	63	0	453	18	411	1326	0	74	1421	63
Turn Type			Free			Perm	Prot		Free	Prot		Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free			8			Free			Free
Actuated Green, G (s)		14.0	77.4		14.0	14.0	21.1	48.3		3.1	30.3	77.4
Effective Green, g (s)		15.0	77.4		15.0	15.0	22.1	49.3		4.1	31.3	77.4
Actuated g/C Ratio		0.19	1.00		0.19	0.19	0.29	0.64		0.05	0.40	1.00
Clearance Time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		686	1583		686	307	505	3239		182	2056	1583
v/s Ratio Prot		0.04			c0.13		c0.23	0.26		0.02	c0.28	
v/s Ratio Perm			0.04			0.01						0.04
v/c Ratio		0.21	0.04		0.66	0.06	0.81	0.41		0.41	0.69	0.04
Uniform Delay, d1		26.2	0.0		28.8	25.4	25.7	6.9		35.5	19.1	0.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		0.2	0.0		2.4	0.1	9.7	0.4		1.5	1.9	0.0
Delay (s)		26.4	0.0		31.2	25.5	35.5	7.3		37.0	21.0	0.0
Level of Service		C	A		C	C	D	A		D	C	A
Approach Delay (s)		18.5			30.2			14.0			20.9	
Approach LOS		B			C			B			C	

Intersection Summary

HCM Average Control Delay	19.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	77.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	69.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0
Lane Util. Factor	0.95	0.86	0.91	0.91	0.91		0.97	0.91	0.91		0.91	1.00
Frt	1.00	0.88	0.85	1.00	0.99		1.00	0.95	0.85		1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.98		0.95	1.00	1.00		1.00	1.00
Satd. Flow (prot)	1681	1395	2882	1610	3307		3433	3211	1441		5085	1583
Flt Permitted	0.95	0.99	1.00	0.95	0.98		0.95	1.00	1.00		1.00	1.00
Satd. Flow (perm)	1681	1395	2882	1610	3307		3433	3211	1441		5085	1583
Volume (vph)	260	0	860	880	660	60	240	460	1130	0	650	240
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	274	0	905	926	695	63	253	484	1189	0	684	253
RTOR Reduction (vph)	0	131	43	0	4	0	0	72	0	0	0	205
Lane Group Flow (vph)	215	173	617	545	1135	0	253	676	925	0	684	48
Turn Type	custom		custom	Split			Prot		Free			Perm
Protected Phases	4	4	4	8	8		5	2			6	
Permitted Phases	4		5						Free			6
Actuated Green, G (s)	16.0	16.0	23.9	34.0	34.0		7.9	28.0	90.0		16.1	16.1
Effective Green, g (s)	17.0	17.0	25.9	35.0	35.0		8.9	29.0	90.0		17.1	17.1
Actuated g/C Ratio	0.19	0.19	0.29	0.39	0.39		0.10	0.32	1.00		0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	318	264	925	626	1286		339	1035	1441		966	301
v/s Ratio Prot	0.13	0.12	c0.13	0.34	c0.34		0.07	0.21			0.13	
v/s Ratio Perm			0.09						c0.64			0.03
v/c Ratio	0.68	0.66	0.67	0.87	0.88		0.75	0.65	0.64		0.71	0.16
Uniform Delay, d1	33.9	33.8	28.3	25.4	25.6		39.5	26.2	0.0		34.1	30.4
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	11.0	12.1	3.8	15.3	9.0		13.9	3.2	2.2		4.4	1.1
Delay (s)	44.9	45.9	32.1	40.7	34.6		53.4	29.4	2.2		38.5	31.6
Level of Service	D	D	C	D	C		D	C	A		D	C
Approach Delay (s)		38.0			36.6			19.5			36.6	
Approach LOS		D			D			B			D	

Intersection Summary

HCM Average Control Delay	31.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	0.97		1.00					0.91	0.88	0.97	0.91	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433		1583					5085	2787	3433	5085	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433		1583					5085	2787	3433	5085	
Volume (vph)	180	0	700	0	0	0	0	1650	500	310	1850	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	189	0	737	0	0	0	0	1737	526	326	1947	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	204	0	0	0
Lane Group Flow (vph)	189	0	737	0	0	0	0	1737	322	326	1947	0
Turn Type	custom		Free						Perm	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						2			
Actuated Green, G (s)	10.1		90.0					54.1	54.1	13.8	71.9	
Effective Green, g (s)	11.1		90.0					55.1	55.1	14.8	72.9	
Actuated g/C Ratio	0.12		1.00					0.61	0.61	0.16	0.81	
Clearance Time (s)	4.0							4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0							3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	423		1583					3113	1706	565	4119	
v/s Ratio Prot								c0.34		c0.09	0.38	
v/s Ratio Perm	0.06		c0.47						0.12			
v/c Ratio	0.45		0.47					0.56	0.19	0.58	0.47	
Uniform Delay, d1	36.6		0.0					10.3	7.7	34.7	2.6	
Progression Factor	1.00		1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.8		1.0					0.7	0.2	1.4	0.4	
Delay (s)	37.4		1.0					11.0	7.9	36.1	3.0	
Level of Service	D		A					B	A	D	A	
Approach Delay (s)		8.4			0.0			10.3			7.8	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.97		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1583	3433		1583			
Volume (vph)	220	1470	0	0	1740	240	280	0	40	0	0	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	232	1547	0	0	1832	253	295	0	42	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	94	0	0	34	0	0	0
Lane Group Flow (vph)	232	1547	0	0	1832	159	295	0	8	0	0	0
Turn Type	Prot					Perm	custom		custom			
Protected Phases	7	4			8							
Permitted Phases						8	2		2			
Actuated Green, G (s)	13.5	64.5			47.0	47.0	17.0		17.0			
Effective Green, g (s)	14.5	65.5			48.0	48.0	18.0		18.0			
Actuated g/C Ratio	0.16	0.73			0.54	0.54	0.20		0.20			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Grp Cap (vph)	287	2590			1898	849	690		318			
v/s Ratio Prot	c0.13	0.44			c0.52							
v/s Ratio Perm						0.10	c0.09		0.01			
v/c Ratio	0.81	0.60			0.97	0.19	0.43		0.03			
Uniform Delay, d1	36.2	5.7			19.9	10.7	31.2		28.7			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	15.3	0.4			13.3	0.1	1.9		0.2			
Delay (s)	51.4	6.1			33.3	10.8	33.2		28.9			
Level of Service	D	A			C	B	C		C			
Approach Delay (s)		12.0			30.5			32.6			0.0	
Approach LOS		B			C			C			A	

Intersection Summary

HCM Average Control Delay	22.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	89.5	Sum of lost time (s)	9.0
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	40	1340	20	30	1420	520	280	10	40	300	40	40
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	1411	21	32	1495	547	295	11	42	316	42	42
RTOR Reduction (vph)	0	0	10	0	0	0	0	0	38	0	0	38
Lane Group Flow (vph)	42	1411	11	32	1495	547	295	11	4	316	42	4
Turn Type	Prot		Perm	Prot		Free	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			Free			2			6
Actuated Green, G (s)	2.2	35.9	35.9	1.5	35.2	76.2	15.7	6.3	6.3	16.5	7.1	7.1
Effective Green, g (s)	3.2	36.9	36.9	2.5	36.2	76.2	16.7	7.3	7.3	17.5	8.1	8.1
Actuated g/C Ratio	0.04	0.48	0.48	0.03	0.48	1.00	0.22	0.10	0.10	0.23	0.11	0.11
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	74	1714	767	58	1681	1583	388	339	152	406	376	168
v/s Ratio Prot	0.02	0.40		0.02	c0.42		0.17	0.00		c0.18	0.01	
v/s Ratio Perm			0.01			c0.35			0.00			0.00
v/c Ratio	0.57	0.82	0.01	0.55	0.89	0.35	0.76	0.03	0.03	0.78	0.11	0.03
Uniform Delay, d1	35.8	16.9	10.2	36.3	18.2	0.0	27.9	31.2	31.2	27.5	30.8	30.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.6	3.3	0.0	10.9	6.2	0.6	8.5	0.0	0.1	9.1	0.1	0.1
Delay (s)	45.4	20.2	10.2	47.2	24.4	0.6	36.4	31.3	31.3	36.6	30.9	30.6
Level of Service	D	C	B	D	C	A	D	C	C	D	C	C
Approach Delay (s)		20.8			18.4			35.6			35.4	
Approach LOS		C			B			D			D	

Intersection Summary

HCM Average Control Delay	22.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	76.2	Sum of lost time (s)	6.0
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.95		1.00	0.95			0.95	1.00
Frt				1.00	0.92		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.98		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1601		1770	3539			3539	1583
Flt Permitted				0.95	0.98		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1601		1770	3539			3539	1583
Volume (vph)	0	0	0	250	10	90	450	430	0	0	160	40
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	263	11	95	474	453	0	0	168	42
RTOR Reduction (vph)	0	0	0	0	68	0	0	0	0	0	0	32
Lane Group Flow (vph)	0	0	0	181	120	0	474	453	0	0	168	10
Turn Type				Perm			Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8								6
Actuated Green, G (s)				11.6	11.6		22.9	40.4			13.5	13.5
Effective Green, g (s)				12.6	12.6		23.9	41.4			14.5	14.5
Actuated g/C Ratio				0.21	0.21		0.40	0.69			0.24	0.24
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				353	336		705	2442			855	383
v/s Ratio Prot							c0.27	c0.13			0.05	
v/s Ratio Perm				c0.11	0.08							0.01
v/c Ratio				0.51	0.36		0.67	0.19			0.20	0.03
Uniform Delay, d1				21.0	20.2		14.8	3.3			18.1	17.4
Progression Factor				1.00	1.00		0.75	0.61			1.00	1.00
Incremental Delay, d2				1.3	0.7		2.4	0.2			0.5	0.1
Delay (s)				22.2	20.9		13.5	2.2			18.6	17.5
Level of Service				C	C		B	A			B	B
Approach Delay (s)		0.0			21.6			8.0			18.4	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		1.00					0.95	1.00	1.00	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		1583					3539	1583	1770	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		1583					3539	1583	1770	3539	
Volume (vph)	10	0	80	0	0	0	0	900	1010	60	330	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	0	84	0	0	0	0	947	1063	63	347	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	11	0	84	0	0	0	0	947	1063	63	347	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	1.3		60.0					41.4	60.0	5.3	50.7	
Effective Green, g (s)	2.3		60.0					42.4	60.0	6.3	51.7	
Actuated g/C Ratio	0.04		1.00					0.71	1.00	0.10	0.86	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	68		1583					2501	1583	186	3049	
v/s Ratio Prot								0.27		0.04	0.10	
v/s Ratio Perm	0.01		0.05						c0.67			
v/c Ratio	0.16		0.05					0.38	0.67	0.34	0.11	
Uniform Delay, d1	27.9		0.0					3.5	0.0	24.9	0.6	
Progression Factor	1.00		1.00					1.00	1.00	1.25	0.05	
Incremental Delay, d2	1.1		0.1					0.4	2.3	1.0	0.1	
Delay (s)	29.0		0.1					4.0	2.3	32.1	0.1	
Level of Service	C		A					A	A	C	A	
Approach Delay (s)		3.4			0.0			3.1			5.0	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	3.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	10	650	320	10	1030	50	280	650	10	70	140	10
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	684	337	11	1084	53	295	684	11	74	147	11
RTOR Reduction (vph)	0	0	211	0	0	33	0	0	7	0	0	9
Lane Group Flow (vph)	11	684	126	11	1084	20	295	684	4	74	147	2
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	0.6	23.0	23.0	0.6	23.0	23.0	14.0	21.3	21.3	3.2	10.5	10.5
Effective Green, g (s)	1.6	24.0	24.0	1.6	24.0	24.0	15.0	22.3	22.3	4.2	11.5	11.5
Actuated g/C Ratio	0.02	0.37	0.37	0.02	0.37	0.37	0.23	0.35	0.35	0.07	0.18	0.18
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	44	1325	593	44	1325	593	414	1231	551	116	635	284
v/s Ratio Prot	c0.01	0.19		0.01	c0.31		c0.17	c0.19		0.04	0.04	
v/s Ratio Perm			0.08			0.01			0.00			0.00
v/c Ratio	0.25	0.52	0.21	0.25	0.82	0.03	0.71	0.56	0.01	0.64	0.23	0.01
Uniform Delay, d1	30.7	15.5	13.6	30.7	18.1	12.7	22.6	16.9	13.7	29.2	22.5	21.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.0	0.3	0.2	3.0	4.1	0.0	5.7	0.5	0.0	11.0	0.2	0.0
Delay (s)	33.6	15.9	13.8	33.6	22.1	12.7	28.3	17.4	13.7	40.2	22.7	21.6
Level of Service	C	B	B	C	C	B	C	B	B	D	C	C
Approach Delay (s)		15.4			21.8			20.6			28.2	
Approach LOS		B			C			C			C	

Intersection Summary

HCM Average Control Delay	20.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	64.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

APPENDIX C

LEVEL OF SERVICE WORKSHEETS: PROJECT PHASING SCENARIOS & MITIGATION

20. Ventura & Gonzales

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	153	.10	197	.12*
NBT	2	3200	568	.18*	703	.22
NBR	1	1600	304	.19	402	.25
SBL	1	1600	87	.05*	108	.07
SBT	3	4800	506	.12	990	.22*
SBR	0	0	69		74	
EBL	1	1600	137	.09*	130	.08
EBT	2	3200	353	.11	428	.13*
EBR	1	1600	53	.03	119	.07
WBL	2	3200	212	.07	566	.18*
WBT	2	3200	325	.11*	496	.18
WBR	0	0	35		87	
TOTAL CAPACITY UTILIZATION				**.43**		**.65**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	148	.09	207	.13*
NBT	2	3200	587	.18*	713	.22
NBR	1	1600	299	.19	400	.25
SBL	1	1600	89	.06*	110	.07
SBT	3	4800	523	.12	988	.22*
SBR	0	0	69		74	
EBL	1	1600	137	.09*	135	.08
EBT	2	3200	365	.11	430	.13*
EBR	1	1600	51	.03	119	.07
WBL	2	3200	207	.06	536	.17*
WBT	2	3200	325	.11*	496	.18
WBR	0	0	37		94	
TOTAL CAPACITY UTILIZATION				**.44**		**.65**

24. Ventura & Wooley

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	87	.05	92	.06
NBT	2	3200	1020	.34*	1117	.37*
NBR	0	0	64		75	
SBL	1	1600	140	.09*	176	.11*
SBT	2	3200	824	.28	1146	.40
SBR	0	0	78		147	
EBL	1	1600	209	.13	154	.10*
EBT	2	3200	602	.19*	466	.15
EBR	1	1600	54	.03	85	.05
WBL	1	1600	94	.06*	233	.15
WBT	2	3200	353	.11	699	.22*
WBR	1	1600	174	.11	215	.13
TOTAL CAPACITY UTILIZATION				**.68**		**.80**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	87	.05	92	.06
NBT	2	3200	1022	.34*	1119	.37*
NBR	0	0	66		73	
SBL	1	1600	135	.08*	176	.11*
SBT	2	3200	826	.28	1136	.40
SBR	0	0	76		147	
EBL	1	1600	204	.13	154	.10*
EBT	2	3200	619	.19*	468	.15
EBR	1	1600	59	.04	85	.05
WBL	1	1600	94	.06*	233	.15
WBT	2	3200	353	.11	713	.22*
WBR	1	1600	169	.11	215	.13
TOTAL CAPACITY UTILIZATION				**.67**		**.80**

45. Oxnard & Vineyard

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	83	.03	283	.09*
NBT	2	3200	616	.19*	805	.25
NBR	2	3200	781	.24	786	.25
SBL	2	3200	98	.03*	181	.06
SBT	3	4800	645	.15	882	.22*
SBR	0	0	95		186	
EBL	1.5		259	.16	240	
EBT	2.5	6400	1122	.23*	597	.13*
EBR	1	1600	172	.11	136	.09
WBL	3	4800	577	.12	889	.19
WBT	2	3200	433	.14*	1013	.32*
WBR	0	0	16		21	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .59 .76

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	85	.03	302	.09*
NBT	2	3200	640	.20*	810	.25
NBR	2	3200	774	.24	798	.25
SBL	2	3200	98	.03*	181	.06
SBT	3	4800	683	.16	884	.22*
SBR	0	0	95		181	
EBL	1.5		264	.17	242	
EBT	2.5	6400	1196	.25*	609	.13*
EBR	1	1600	174	.11	136	.09
WBL	3	4800	608	.13	889	.19
WBT	2	3200	433	.14*	1013	.32*
WBR	0	0	16		21	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .62 .76

46. Oxnard & Gonzales

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	95	.03	180	.06*
NBT	3	4800	771	.16*	936	.20
NBR	1	1600	370	.23	305	.19
SBL	2	3200	302	.09*	405	.13
SBT	3	4800	1009	.21	1333	.28*
SBR	1	1600	61	.04	113	.07
EBL	2	3200	229	.07	245	.08
EBT	2	3200	925	.29*	966	.30*
EBR	1	1600	59	.04	124	.08
WBL	2	3200	267	.08*	386	.12*
WBT	3	4800	737	.15	1171	.24
WBR	1	1600	356	.22	386	.24
Right Turn Adjustment			NBR	.01*		

TOTAL CAPACITY UTILIZATION .63 .76

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	95	.03	178	.06*
NBT	3	4800	785	.16*	960	.20
NBR	1	1600	363	.23	305	.19
SBL	2	3200	350	.11*	405	.13
SBT	3	4800	1035	.22	1321	.28*
SBR	1	1600	61	.04	113	.07
EBL	2	3200	231	.07	243	.08
EBT	2	3200	927	.29*	995	.31*
EBR	1	1600	64	.04	126	.08
WBL	2	3200	262	.08*	391	.12*
WBT	3	4800	732	.15	1207	.25
WBR	1	1600	356	.22	384	.24
Right Turn Adjustment			NBR	.01*		

TOTAL CAPACITY UTILIZATION .65 .77

65. Rose & Gonzales

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	267	.08	396	.12*
NBT	3	4800	1115	.23*	1202	.25
NBR	1	1600	228	.14	130	.08
SBL	2	3200	304	.10*	304	.10
SBT	3	4800	1042	.22	1491	.31*
SBR	1	1600	297	.19	610	.38
EBL	2	3200	673	.21*	579	.18*
EBT	3	4800	864	.18	585	.12
EBR	1	1600	252	.16	207	.13
WBL	1	1600	85	.05	167	.10
WBT	3	4800	348	.07*	1118	.23*
WBR	1	1600	143	.09	288	.18
TOTAL CAPACITY UTILIZATION				**.61**		**.84**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	274	.09	394	.12*
NBT	3	4800	1163	.24*	1248	.26
NBR	1	1600	204	.13	128	.08
SBL	2	3200	378	.12*	304	.10
SBT	3	4800	1047	.22	1501	.31*
SBR	1	1600	280	.18	610	.38
EBL	2	3200	738	.23*	579	.18*
EBT	3	4800	950	.20	611	.13
EBR	1	1600	274	.17	207	.13
WBL	1	1600	87	.05	138	.09
WBT	3	4800	372	.08*	1180	.25*
WBR	1	1600	155	.10	290	.18
TOTAL CAPACITY UTILIZATION				**.67**		**.86**

66. Rose & Camino del Sol

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	131	.08	108	.07
NBT	2	3200	1181	.37*	1299	.41*
NBR	1	1600	202	.13	140	.09
SBL	1	1600	185	.12*	135	.08*
SBT	2	3200	1249	.39	1287	.40
SBR	f		82		254	
EBL	1	1600	189	.12	137	.09
EBT	2	3200	261	.13*	181	.09*
EBR	0	0	140		95	
WBL	1	1600	152	.10*	261	.16*
WBT	2	3200	145	.05	459	.14
WBR	1	1600	95	.06	247	.15
TOTAL CAPACITY UTILIZATION				**.72**		**.74**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	131	.08	94	.06
NBT	2	3200	1210	.38*	1313	.41*
NBR	1	1600	216	.14	140	.09
SBL	1	1600	221	.14*	140	.09*
SBT	2	3200	1220	.38	1285	.40
SBR	f		84		247	
EBL	1	1600	194	.12	142	.09
EBT	2	3200	290	.13*	179	.09*
EBR	0	0	135		93	
WBL	1	1600	152	.10*	275	.17*
WBT	2	3200	147	.05	517	.16
WBR	1	1600	100	.06	273	.17
TOTAL CAPACITY UTILIZATION				**.75**		**.76**

68. Rose & 5th

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	16	.01*	25	.02*
NBT	3	4800	1187	.27	1263	.28
NBR	0	0	113		59	
SBL	1	1600	39	.02	29	.02
SBT	3	4800	1224	.29*	1312	.32*
SBR	0	0	151		208	
EBL	2	3200	227	.07	325	.10
EBT	1	1600	461	.29*	345	.22*
EBR	1	1600	34	.02	46	.03
WBL	1	1600	137	.09*	233	.15*
WBT	2	3200	256	.09	581	.21
WBR	0	0	25		76	
TOTAL CAPACITY UTILIZATION				**.68**		**.71**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	16	.01	25	.02*
NBT	3	4800	1204	.28*	1253	.27
NBR	0	0	142		57	
SBL	1	1600	39	.02*	31	.02
SBT	3	4800	1207	.28	1307	.32*
SBR	0	0	146		210	
EBL	2	3200	234	.07	344	.11
EBT	1	1600	483	.30*	331	.21*
EBR	1	1600	34	.02	44	.03
WBL	1	1600	139	.09*	269	.17*
WBT	2	3200	258	.09	605	.21
WBR	0	0	25		78	
TOTAL CAPACITY UTILIZATION				**.69**		**.72**

69. Rose & Wooley

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	35	.02*	38	.02*
NBT	2	3200	1057	.33	890	.28
NBR	1	1600	103	.06	75	.05
SBL	1	1600	23	.01	11	.01
SBT	2	3200	1057	.33*	1296	.41*
SBR	f		391		415	
EBL	2	3200	249	.08	344	.11*
EBT	2	3200	318	.11*	222	.09
EBR	0	0	36		60	
WBL	1	1600	64	.04*	117	.07
WBT	2	3200	140	.05	374	.13*
WBR	0	0	18		27	
TOTAL CAPACITY UTILIZATION				**.50**		**.67**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	33	.02	38	.02*
NBT	2	3200	1079	.34*	890	.28
NBR	1	1600	103	.06	75	.05
SBL	1	1600	25	.02*	13	.01
SBT	2	3200	1047	.33	1306	.41*
SBR	f		384		427	
EBL	2	3200	271	.08	339	.11*
EBT	2	3200	306	.11*	217	.09
EBR	0	0	34		60	
WBL	1	1600	78	.05*	127	.08
WBT	2	3200	135	.05	376	.13*
WBR	0	0	18		27	
TOTAL CAPACITY UTILIZATION				**.52**		**.67**

71. **Rose & Oxnard**

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	155	.10*	171	.11*
NBT	2	3200	812	.25	798	.25
NBR	1	1600	31	.02	21	.01
SBL	2	3200	38	.01	59	.02
SBT	2	3200	661	.21*	1054	.33*
SBR	f		29		49	
EBL	0	0	0		0	
EBT	2	3200	300	.09*	196	.06
EBR	f		203		298	
WBL	0	0	1		0	
WBT	2	3200	236	.07	702	.22*
WBR	f		72		85	
TOTAL CAPACITY UTILIZATION				**.40**		**.66**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	153	.10*	171	.11*
NBT	2	3200	824	.26	796	.25
NBR	1	1600	31	.02	21	.01
SBL	2	3200	45	.01	66	.02
SBT	2	3200	649	.20*	1061	.33*
SBR	f		29		49	
EBL	0	0	0		0	
EBT	2	3200	302	.09*	198	.06
EBR	f		203		298	
WBL	0	0	1		0	
WBT	2	3200	243	.08	707	.22*
WBR	f		77		87	
TOTAL CAPACITY UTILIZATION				**.39**		**.66**

72. **Rose & Channel Islands**

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	162	.05	278	.09
NBT	2	3200	675	.21*	175	.05*
NBR	1	1600	113	.07	25	.02
SBL	1	1600	105	.07*	190	.12*
SBT	3	4800	623	.16	208	.07
SBR	0	0	142		331	.21
EBL	2	3200	380	.12	441	.14*
EBT	2	3200	635	.20*	395	.12
EBR	1	1600	195	.12	189	.12
WBL	2	3200	169	.05*	286	.09
WBT	2	3200	293	.09	764	.24*
WBR	1	1600	5	.00	8	.01
Right Turn Adjustment					SBR	.02*
TOTAL CAPACITY UTILIZATION				**.53**		**.57**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	160	.05	276	.09
NBT	2	3200	687	.21*	175	.05*
NBR	1	1600	123	.08	27	.02
SBL	1	1600	105	.07*	190	.12*
SBT	3	4800	613	.16	220	.07
SBR	0	0	137		326	.20
EBL	2	3200	380	.12	439	.14*
EBT	2	3200	640	.20*	405	.13
EBR	1	1600	195	.12	187	.12
WBL	2	3200	174	.05*	291	.09
WBT	2	3200	303	.09	788	.25*
WBR	1	1600	5	.00	8	.01
Right Turn Adjustment					SBR	.01*
TOTAL CAPACITY UTILIZATION				**.53**		**.57**

73. Rose & Bard

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	32	.02	52	.03*
NBT	2	3200	683	.21*	422	.13
NBR	1	1600	19	.01	19	.01
SBL	1	1600	191	.12*	76	.05
SBT	2	3200	505	.16	561	.18*
SBR	1	1600	154	.10	314	.20
EBL	1	1600	238	.15*	170	.11*
EBT	2	3200	216	.08	154	.06
EBR	0	0	32		47	
WBL	1	1600	9	.01	15	.01
WBT	2	3200	120	.08*	353	.16*
WBR	0	0	173	.11	145	
TOTAL CAPACITY UTILIZATION				**.56**		**.48**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	34	.02	57	.04*
NBT	2	3200	695	.22*	412	.13
NBR	1	1600	19	.01	19	.01
SBL	1	1600	193	.12*	78	.05
SBT	2	3200	505	.16	568	.18*
SBR	1	1600	149	.09	319	.20
EBL	1	1600	240	.15*	177	.11*
EBT	2	3200	216	.08	156	.06
EBR	0	0	34		47	
WBL	1	1600	11	.01	15	.01
WBT	2	3200	127	.08*	355	.16*
WBR	0	0	175	.11	147	
TOTAL CAPACITY UTILIZATION				**.57**		**.49**

74. Rose & Pleasant Valley

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	54	.03	75	.05
NBT	2	3200	158	.05*	192	.06*
NBR	1	1600	55	.03	53	.03
SBL	1	1600	153	.10*	142	.09*
SBT	2	3200	181	.06	232	.07
SBR	1	1600	182	.11	266	.17
EBL	1	1600	268	.17*	234	.15*
EBT	2	3200	660	.21	421	.13
EBR	1	1600	35	.02	32	.02
WBL	1	1600	54	.03	78	.05
WBT	2	3200	489	.15*	689	.22*
WBR	1	1600	112	.07	122	.08
TOTAL CAPACITY UTILIZATION				**.47**		**.52**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	54	.03	82	.05
NBT	2	3200	135	.04*	199	.06*
NBR	1	1600	55	.03	48	.03
SBL	1	1600	153	.10*	144	.09*
SBT	2	3200	181	.06	258	.08
SBR	1	1600	148	.09	266	.17
EBL	1	1600	285	.18*	234	.15*
EBT	2	3200	655	.20	378	.12
EBR	1	1600	40	.03	22	.01
WBL	1	1600	49	.03	68	.04
WBT	2	3200	441	.14*	679	.21*
WBR	1	1600	128	.08	141	.09
TOTAL CAPACITY UTILIZATION				**.46**		**.51**

78. Bard & Pleasant Valley

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	1		1	
NBT	1	1600	1	.01*	1	.01*
NBR	0	0	14		15	
SBL	1.5		293		191	
SBT	0.5	3200	3	.09*	11	.06*
SBR	1	1600	15	.01	22	.01
EBL	1	1600	46	.03*	43	.03*
EBT	2	3200	920	.29	569	.18
EBR	0	0	5		1	
WBL	1	1600	16	.01	36	.02
WBT	2	3200	600	.30*	914	.45*
WBR	0	0	361		525	

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .43 .55

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	1		1	
NBT	1	1600	1	.01*	1	.01*
NBR	0	0	14		15	
SBL	1.5		293		196	
SBT	0.5	3200	3	.09*	11	.06*
SBR	1	1600	17	.01	24	.02
EBL	1	1600	46	.03*	43	.03*
EBT	2	3200	920	.29	571	.18
EBR	0	0	5		1	
WBL	1	1600	16	.01	36	.02
WBT	2	3200	600	.30*	907	.45*
WBR	0	0	373		532	

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .43 .55

82. Rice & Camino Del Sol

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	103	.06	197	.12*
NBT	3	4800	895	.19*	1247	.26
NBR	1	1600	81	.05	42	.03
SBL	1	1600	203	.13*	103	.06
SBT	3	4800	1089	.23	1179	.25*
SBR	d	1600	149	.09	240	.15
EBL	1	1600	140	.09*	147	.09*
EBT	2	3200	211	.07	224	.07
EBR	1	1600	69	.04	59	.04
WBL	1	1600	41	.03	76	.05
WBT	2	3200	134	.04*	337	.11*
WBR	1	1600	73	.05	176	.11

TOTAL CAPACITY UTILIZATION .45 .57

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	91	.06	192	.12*
NBT	3	4800	1080	.23*	1216	.25
NBR	1	1600	81	.05	40	.03
SBL	1	1600	205	.13*	74	.05
SBT	3	4800	1055	.22	1299	.27*
SBR	d	1600	123	.08	254	.16
EBL	1	1600	176	.11*	130	.08*
EBT	2	3200	209	.07	150	.05
EBR	1	1600	67	.04	61	.04
WBL	1	1600	41	.03	76	.05
WBT	2	3200	96	.03*	330	.10*
WBR	1	1600	63	.04	174	.11

TOTAL CAPACITY UTILIZATION .50 .57

84. Rice & Fifth

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	19	.01	38	.02*
NBT	2	3200	1147	.36*	1078	.34
NBR	1	1600	356	.22	262	.16
SBL	1	1600	20	.01*	19	.01
SBT	2	3200	905	.28	1417	.44*
SBR	1	1600	91	.06	208	.13
EBL	1	1600	110	.07	72	.05
EBT	2	3200	381	.12*	337	.11*
EBR	0	0	17		11	
WBL	1	1600	163	.10*	353	.22*
WBT	2	3200	264	.09	497	.17
WBR	0	0	17		39	
TOTAL CAPACITY UTILIZATION				**.59**		**.79**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	29	.02	45	.03*
NBT	2	3200	1241	.39*	1054	.33
NBR	1	1600	394	.25	226	.14
SBL	1	1600	20	.01*	21	.01
SBT	2	3200	883	.28	1513	.47*
SBR	1	1600	91	.06	208	.13
EBL	1	1600	120	.08	84	.05
EBT	2	3200	422	.14*	325	.11*
EBR	0	0	19		11	
WBL	1	1600	149	.09*	339	.21*
WBT	2	3200	281	.09	509	.17
WBR	0	0	17		39	
TOTAL CAPACITY UTILIZATION				**.63**		**.82**

85. Rice & Wooley

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	27	.02	85	.05*
NBT	2	3200	1150	.36*	1131	.35
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	896	.28	1417	.44*
SBR	1	1600	198	.12	375	.23
EBL	2	3200	454	.14*	371	.12*
EBT	0	0	0		0	
EBR	1	1600	38	.02	20	.01
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				**.50**		**.61**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	27	.02	87	.05*
NBT	2	3200	1344	.42*	1083	.34
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	944	.29	1494	.47*
SBR	1	1600	215	.13	382	.24
EBL	2	3200	503	.16*	361	.11*
EBT	0	0	0		0	
EBR	1	1600	38	.02	25	.02
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				**.58**		**.63**

86. Rice & Channel Islands

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	79	.05*	337	.21*
NBT	2	3200	574	.18	989	.31
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	692	.22*	853	.27*
SBR	d	1600	189	.12	711	.44
EBL	2	3200	491	.15*	202	.06*
EBT	0	0	0		0	
EBR	1	1600	124	.08	26	.02
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					SBR	.12*
TOTAL CAPACITY UTILIZATION				**.42**		**.66**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	79	.05*	308	.19*
NBT	2	3200	612	.19	955	.30
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	644	.20*	879	.27*
SBR	d	1600	194	.12	757	.47
EBL	2	3200	520	.16*	190	.06*
EBT	0	0	0		0	
EBR	1	1600	112	.07	31	.02
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					SBR	.15*
TOTAL CAPACITY UTILIZATION				**.41**		**.67**

87. SR-1/Rice NB & Pleasant Vly

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	96	.03*	391	.12*
NBT	1	1600	4	.02	9	.02
NBR	0	0	22		17	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	343	.21*	210	.13*
EBT	2	3200	1012	.32	706	.22
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	617	.22*	1372	.49*
WBR	0	0	88		187	
TOTAL CAPACITY UTILIZATION				**.46**		**.74**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	101	.03*	391	.12*
NBT	1	1600	4	.02	9	.02
NBR	0	0	27		17	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	350	.22*	208	.13*
EBT	2	3200	1002	.31	725	.23
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	622	.22*	1370	.49*
WBR	0	0	90		189	
TOTAL CAPACITY UTILIZATION				**.47**		**.74**

89. Rice & Hueneme

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	44	.03*	19	.01*
SBT	0	0	0		0	
SBR	f		166		152	
EBL	2	3200	132	.04	199	.06*
EBT	1	1600	450	.28*	481	.30
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	382	.24	711	.44*
WBR	f		27		100	
TOTAL CAPACITY UTILIZATION				**.31**		**.51**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	44	.03*	19	.01*
SBT	0	0	0		0	
SBR	f		125		171	
EBL	2	3200	146	.05*	182	.06*
EBT	1	1600	440	.28	495	.31
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	411	.26*	704	.44*
WBR	f		27		98	
TOTAL CAPACITY UTILIZATION				**.34**		**.51**

92. Del Norte & Camino Del Sol

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	55	.03*	169	.11*
NBT	2	3200	355	.11	558	.17
NBR	d	1600	10	.01	5	.00
SBL	1	1600	46	.03	42	.03
SBT	2	3200	444	.14*	361	.11*
SBR	1	1600	169	.11	194	.12
EBL	1	1600	158	.10*	270	.17*
EBT	1	1600	15	.01	10	.01
EBR	1	1600	94	.06	43	.03
WBL	0	0	10		21	
WBT	1	1600	7	.02*	20	.04*
WBR	0	0	8		16	
TOTAL CAPACITY UTILIZATION				**.29**		**.43**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	50	.03	179	.11*
NBT	2	3200	432	.14*	419	.13
NBR	d	1600	12	.01	5	.00
SBL	1	1600	44	.03*	40	.03
SBT	2	3200	365	.11	390	.12*
SBR	1	1600	119	.07	192	.12
EBL	1	1600	144	.09*	176	.11*
EBT	1	1600	15	.01	10	.01
EBR	1	1600	94	.06	43	.03
WBL	0	0	10		21	
WBT	1	1600	7	.02*	20	.04*
WBR	0	0	8		16	
TOTAL CAPACITY UTILIZATION				**.28**		**.38**

94. Del Norte & 5th St

Year 2010 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	1		0	
SBL	1	1600	72	.05*	55	.03*
SBT	0	0	0		0	
SBR	1	1600	192	.12	204	.13
EBL	1	1600	211	.13	135	.08*
EBT	1	1600	682	.43*	419	.26
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	242	.17	748	.52*
WBR	0	0	36		83	
Right Turn Adjustment					SBR	.04*
TOTAL CAPACITY UTILIZATION				**.48**		**.67**

Year 2010 W/Phase 1 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	1		0	
SBL	1	1600	67	.04*	103	.06*
SBT	0	0	0		0	
SBR	1	1600	175	.11	238	.15
EBL	1	1600	259	.16	87	.05*
EBT	1	1600	656	.41*	421	.26
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	261	.21	717	.50*
WBR	0	0	70		88	
Right Turn Adjustment					SBR	.05*
TOTAL CAPACITY UTILIZATION				**.45**		**.66**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	466	0	214	0	1128	319	0	1179	306
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	518	0	238	0	1253	354	0	1310	340
RTOR Reduction (vph)	0	0	0	0	0	47	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	518	0	191	0	1253	354	0	1310	340
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				19.0		19.0		63.0	90.0		63.0	90.0
Effective Green, g (s)				20.0		20.0		64.0	90.0		64.0	90.0
Actuated g/C Ratio				0.22		0.22		0.71	1.00		0.71	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				763		352		3616	1583		2517	1583
v/s Ratio Prot				c0.15		0.12		0.25			c0.37	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.68		0.54		0.35	0.22		0.52	0.21
Uniform Delay, d1				32.1		31.0		5.0	0.0		6.0	0.0
Progression Factor				1.00		1.00		0.63	1.00		1.00	1.00
Incremental Delay, d2				2.4		1.7		0.2	0.3		0.8	0.3
Delay (s)				34.5		32.7		3.4	0.3		6.7	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			33.9			2.7			5.4	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	9.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	52.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.87						1.00	0.85		0.97	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1524						3539	1583		4910	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1524						3539	1583		4910	
Volume (vph)	234	0	180	0	0	0	0	1201	883	0	1308	391
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	269	0	207	0	0	0	0	1380	1015	0	1503	449
RTOR Reduction (vph)	0	29	0	0	0	0	0	0	0	0	41	0
Lane Group Flow (vph)	245	202	0	0	0	0	0	1380	1015	0	1911	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.7	17.7						64.3	90.0		64.3	
Effective Green, g (s)	18.7	18.7						65.3	90.0		65.3	
Actuated g/C Ratio	0.21	0.21						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	349	317						2568	1583		3562	
v/s Ratio Prot	0.15	0.13						0.39			0.39	
v/s Ratio Perm									c0.64			
v/c Ratio	0.70	0.64						0.54	0.64		0.54	
Uniform Delay, d1	33.1	32.5						5.6	0.0		5.5	
Progression Factor	1.00	1.00						1.00	1.00		0.62	
Incremental Delay, d2	6.3	4.1						0.8	2.0		0.5	
Delay (s)	39.3	36.7						6.4	2.0		3.9	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.1			0.0			4.5			3.9	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	52.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	577	2	26	81	63	0	0	91	26
Peak Hour Factor	0.93	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.93	0.93
Hourly flow rate (vph)	0	0	0	620	2	28	87	68	0	0	98	28

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	651	155	126
Volume Left (vph)	620	87	0
Volume Right (vph)	28	0	28
Hadj (s)	0.20	0.15	-0.10
Departure Headway (s)	5.0	6.1	5.9
Degree Utilization, x	0.90	0.26	0.21
Capacity (veh/h)	716	574	585
Control Delay (s)	34.9	11.2	10.4
Approach Delay (s)	34.9	11.2	10.4
Approach LOS	D	B	B

Intersection Summary			
Delay	27.7		
HCM Level of Service	D		
Intersection Capacity Utilization	54.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	23	1	232	0	0	0	0	116	282	51	623	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.95	0.95	0.95	0.87	0.87	0.87	0.87	0.95
Hourly flow rate (vph)	26	1	267	0	0	0	0	133	324	59	716	0

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total (vph)	294	457	775
Volume Left (vph)	26	0	59
Volume Right (vph)	267	324	0
Hadj (s)	-0.49	-0.39	0.05
Departure Headway (s)	6.1	5.5	5.7
Degree Utilization, x	0.50	0.69	1.22
Capacity (veh/h)	559	642	642
Control Delay (s)	15.1	19.9	131.6
Approach Delay (s)	15.1	19.9	131.6
Approach LOS	C	C	F

Intersection Summary			
Delay	75.6		
HCM Level of Service	F		
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	738	0	160	0	1212	319	0	1280	286
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	858	0	186	0	1409	371	0	1488	333
RTOR Reduction (vph)	0	0	0	0	0	24	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	858	0	162	0	1409	371	0	1488	333
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				28.2		28.2		53.8	90.0		53.8	90.0
Effective Green, g (s)				29.2		29.2		54.8	90.0		54.8	90.0
Actuated g/C Ratio				0.32		0.32		0.61	1.00		0.61	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1114		514		3096	1583		2155	1583
v/s Ratio Prot				c0.25		0.10		0.28			c0.42	
v/s Ratio Perm									0.23			0.21
v/c Ratio				0.77		0.31		0.46	0.23		0.69	0.21
Uniform Delay, d1				27.4		22.9		9.5	0.0		11.9	0.0
Progression Factor				1.00		1.00		0.55	1.00		1.00	1.00
Incremental Delay, d2				3.3		0.4		0.4	0.3		1.8	0.3
Delay (s)				30.7		23.2		5.6	0.3		13.7	0.3
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			29.4			4.5			11.3	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.89						1.00	0.85		0.98	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1560						3539	1583		4993	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1560						3539	1583		4993	
Volume (vph)	276	0	139	0	0	0	0	1342	747	0	1836	253
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	294	0	148	0	0	0	0	1428	795	0	1953	269
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	0	14	0
Lane Group Flow (vph)	231	200	0	0	0	0	0	1428	795	0	2208	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.0	17.0						65.0	90.0		65.0	
Effective Green, g (s)	18.0	18.0						66.0	90.0		66.0	
Actuated g/C Ratio	0.20	0.20						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	336	312						2595	1583		3662	
v/s Ratio Prot	c0.14	0.13						0.40			c0.44	
v/s Ratio Perm									0.50			
v/c Ratio	0.69	0.64						0.55	0.50		0.60	
Uniform Delay, d1	33.4	33.0						5.4	0.0		5.7	
Progression Factor	1.00	1.00						0.91	1.00		0.74	
Incremental Delay, d2	5.8	4.4						0.8	1.0		0.5	
Delay (s)	39.1	37.5						5.7	1.0		4.8	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.3			0.0			4.0			4.8	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	308	3	77	320	172	0	0	158	36
Peak Hour Factor	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Hourly flow rate (vph)	0	0	0	321	3	80	333	179	0	0	165	38

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	404	513	202
Volume Left (vph)	321	333	0
Volume Right (vph)	80	0	38
Hadj (s)	0.07	0.16	-0.08
Departure Headway (s)	6.0	5.8	6.0
Degree Utilization, x	0.67	0.82	0.34
Capacity (veh/h)	573	611	551
Control Delay (s)	20.5	29.5	12.1
Approach Delay (s)	20.5	29.5	12.1
Approach LOS	C	D	B

Intersection Summary			
Delay	23.1		
HCM Level of Service	C		
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	40	0	104	0	0	0	0	507	615	49	379	0
Peak Hour Factor	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Hourly flow rate (vph)	44	0	116	0	0	0	0	563	683	54	421	0

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total (vph)	160	1247	476
Volume Left (vph)	44	0	54
Volume Right (vph)	116	683	0
Hadj (s)	-0.34	-0.29	0.06
Departure Headway (s)	6.3	4.8	5.4
Degree Utilization, x	0.28	1.67	0.71
Capacity (veh/h)	544	754	653
Control Delay (s)	11.7	320.4	20.6
Approach Delay (s)	11.7	320.4	20.6
Approach LOS	B	F	C

Intersection Summary			
Delay	218.4		
HCM Level of Service	F		
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	504	0	216	0	1142	319	0	1220	304
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	560	0	240	0	1269	354	0	1356	338
RTOR Reduction (vph)	0	0	0	0	0	44	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	560	0	196	0	1269	354	0	1356	338
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				20.1		20.1		61.9	90.0		61.9	90.0
Effective Green, g (s)				21.1		21.1		62.9	90.0		62.9	90.0
Actuated g/C Ratio				0.23		0.23		0.70	1.00		0.70	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				805		371		3554	1583		2473	1583
v/s Ratio Prot				c0.16		0.12		0.25			c0.38	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.70		0.53		0.36	0.22		0.55	0.21
Uniform Delay, d1				31.5		30.1		5.4	0.0		6.6	0.0
Progression Factor				1.00		1.00		0.66	1.00		1.00	1.00
Incremental Delay, d2				2.6		1.4		0.2	0.3		0.9	0.3
Delay (s)				34.1		31.4		3.8	0.3		7.5	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			33.3			3.0			6.1	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	10.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	54.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.87						1.00	0.85		0.97	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1532						3539	1583		4912	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1532						3539	1583		4912	
Volume (vph)	241	0	168	0	0	0	0	1206	914	0	1370	403
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	277	0	193	0	0	0	0	1386	1051	0	1575	463
RTOR Reduction (vph)	0	27	0	0	0	0	0	0	0	0	41	0
Lane Group Flow (vph)	243	200	0	0	0	0	0	1386	1051	0	1997	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.5	17.5						64.5	90.0		64.5	
Effective Green, g (s)	18.5	18.5						65.5	90.0		65.5	
Actuated g/C Ratio	0.21	0.21						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	346	315						2576	1583		3575	
v/s Ratio Prot	0.14	0.13						0.39			0.41	
v/s Ratio Perm									c0.66			
v/c Ratio	0.70	0.63						0.54	0.66		0.56	
Uniform Delay, d1	33.2	32.7						5.5	0.0		5.6	
Progression Factor	1.00	1.00						1.00	1.00		0.65	
Incremental Delay, d2	6.3	4.1						0.8	2.2		0.5	
Delay (s)	39.5	36.8						6.3	2.2		4.2	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.2			0.0			4.5			4.2	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	325	3	72	325	390	0	0	163	43
Peak Hour Factor	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Hourly flow rate (vph)	0	0	0	339	3	75	339	406	0	0	170	45

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	417	745	215
Volume Left (vph)	339	339	0
Volume Right (vph)	75	0	45
Hadj (s)	0.09	0.12	-0.09
Departure Headway (s)	6.3	5.9	6.3
Degree Utilization, x	0.73	1.22	0.38
Capacity (veh/h)	562	620	551
Control Delay (s)	24.6	133.4	13.0
Approach Delay (s)	24.6	133.4	13.0
Approach LOS	C	F	B

Intersection Summary			
Delay	81.7		
HCM Level of Service	F		
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	40	0	118	0	0	0	0	721	634	49	401	0
Peak Hour Factor	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Hourly flow rate (vph)	44	0	131	0	0	0	0	801	704	54	446	0

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total (vph)	176	1506	500
Volume Left (vph)	44	0	54
Volume Right (vph)	131	704	0
Hadj (s)	-0.36	-0.25	0.06
Departure Headway (s)	6.3	5.0	5.5
Degree Utilization, x	0.31	2.08	0.76
Capacity (veh/h)	542	724	647
Control Delay (s)	12.1	503.7	23.4
Approach Delay (s)	12.1	503.7	23.4
Approach LOS	B	F	C

Intersection Summary			
Delay	354.0		
HCM Level of Service	F		
Intersection Capacity Utilization	92.9%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	731	0	167	0	1210	341	0	1280	286
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	850	0	194	0	1407	397	0	1488	333
RTOR Reduction (vph)	0	0	0	0	0	24	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	850	0	170	0	1407	397	0	1488	333
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				28.1		28.1		53.9	90.0		53.9	90.0
Effective Green, g (s)				29.1		29.1		54.9	90.0		54.9	90.0
Actuated g/C Ratio				0.32		0.32		0.61	1.00		0.61	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1110		512		3102	1583		2159	1583
v/s Ratio Prot				c0.25		0.11		0.28			c0.42	
v/s Ratio Perm									0.25			0.21
v/c Ratio				0.77		0.33		0.45	0.25		0.69	0.21
Uniform Delay, d1				27.4		23.1		9.5	0.0		11.8	0.0
Progression Factor				1.00		1.00		0.61	1.00		1.00	1.00
Incremental Delay, d2				3.2		0.4		0.4	0.3		1.8	0.3
Delay (s)				30.6		23.5		6.1	0.3		13.6	0.3
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			29.3			4.9			11.2	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.89						1.00	0.85		0.98	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1559						3539	1583		4989	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1559						3539	1583		4989	
Volume (vph)	274	0	139	0	0	0	0	1361	749	0	1819	263
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	291	0	148	0	0	0	0	1448	797	0	1935	280
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	0	14	0
Lane Group Flow (vph)	230	198	0	0	0	0	0	1448	797	0	2201	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.0	17.0						65.0	90.0		65.0	
Effective Green, g (s)	18.0	18.0						66.0	90.0		66.0	
Actuated g/C Ratio	0.20	0.20						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	336	312						2595	1583		3659	
v/s Ratio Prot	c0.14	0.13						0.41			c0.44	
v/s Ratio Perm									0.50			
v/c Ratio	0.68	0.63						0.56	0.50		0.60	
Uniform Delay, d1	33.4	33.0						5.4	0.0		5.7	
Progression Factor	1.00	1.00						1.19	1.00		0.74	
Incremental Delay, d2	5.7	4.2						0.8	1.0		0.5	
Delay (s)	39.0	37.2						7.2	1.0		4.7	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.1			0.0			5.0			4.7	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM Average Control Delay	7.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	325	3	72	325	390	0	0	163	43
Peak Hour Factor	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Hourly flow rate (vph)	0	0	0	339	3	75	339	406	0	0	170	45

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	417	745	215
Volume Left (vph)	339	339	0
Volume Right (vph)	75	0	45
Hadj (s)	0.09	0.12	-0.09
Departure Headway (s)	6.3	5.9	6.3
Degree Utilization, x	0.73	1.22	0.38
Capacity (veh/h)	562	620	551
Control Delay (s)	24.6	133.4	13.0
Approach Delay (s)	24.6	133.4	13.0
Approach LOS	C	F	B

Intersection Summary			
Delay	81.7		
HCM Level of Service	F		
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	40	0	118	0	0	0	0	721	634	49	401	0
Peak Hour Factor	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Hourly flow rate (vph)	44	0	131	0	0	0	0	801	704	54	446	0

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total (vph)	176	1506	500
Volume Left (vph)	44	0	54
Volume Right (vph)	131	704	0
Hadj (s)	-0.36	-0.25	0.06
Departure Headway (s)	6.3	5.0	5.5
Degree Utilization, x	0.31	2.08	0.76
Capacity (veh/h)	542	724	647
Control Delay (s)	12.1	503.7	23.4
Approach Delay (s)	12.1	503.7	23.4
Approach LOS	B	F	C

Intersection Summary			
Delay	354.0		
HCM Level of Service	F		
Intersection Capacity Utilization	92.9%	ICU Level of Service	F
Analysis Period (min)	15		

65. Rose & Gonzales

Year 2010 W/Project Phase 1 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	274	.09	394	.12*
NBT	3	4800	1163	.24*	1248	.26
NBR	1	1600	204	.13	128	.08
SBL	2	3200	378	.12*	304	.10
SBT	3	4800	1047	.22	1501	.31*
SBR	1	1600	280	.18	610	.38
EBL	2	3200	738	.23*	579	.18*
EBT	3	4800	950	.20	611	.13
EBR	1	1600	274	.17	207	.13
WBL	1	1600	87	.05	138	.09
WBT	4	6400	372	.06*	1180	.18*
WBR	1	1600	155	.10	290	.18

TOTAL CAPACITY UTILIZATION .65 .79

66. Rose & Camino del Sol

Year 2010 W/Project Phase 1 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	131	.08*	94	.06*
NBT	3	4800	1210	.30	1313	.30
NBR	0	0	216		140	
SBL	1	1600	221	.14	140	.09
SBT	2	3200	1220	.38*	1285	.40*
SBR	f		84		247	
EBL	1	1600	194	.12	142	.09
EBT	2	3200	290	.13*	179	.09*
EBR	0	0	135		93	
WBL	1	1600	152	.10*	275	.17*
WBT	2	3200	147	.05	517	.16
WBR	1	1600	100	.06	273	.17

TOTAL CAPACITY UTILIZATION .69 .72

84. Rice & Fifth

Year 2010 W/Project Phase 1 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	29	.02	45	.03*
NBT	2	3200	1241	.39*	1054	.33
NBR	1	1600	394	.25	226	.14
SBL	1	1600	20	.01*	21	.01
SBT	3	4800	883	.20	1513	.36*
SBR	0	0	91		208	
EBL	1	1600	120	.08	84	.05
EBT	2	3200	422	.14*	325	.11*
EBR	0	0	19		11	
WBL	1	1600	149	.09*	339	.21*
WBT	2	3200	281	.09	509	.17
WBR	0	0	17		39	

TOTAL CAPACITY UTILIZATION .63 .71

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					3.0			3.0			3.0	
Lane Util. Factor					1.00			1.00			1.00	
Frt					1.00			1.00			0.97	
Flt Protected					0.95			0.97			1.00	
Satd. Flow (prot)					1771			1812			1814	
Flt Permitted					0.95			0.78			1.00	
Satd. Flow (perm)					1771			1455			1814	
Volume (vph)	0	0	0	680	2	16	88	70	0	0	127	31
Peak-hour factor, PHF	0.93	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.93	0.93
Adj. Flow (vph)	0	0	0	731	2	17	95	75	0	0	137	33
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	11	0
Lane Group Flow (vph)	0	0	0	0	748	0	0	170	0	0	159	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)					31.2			25.8			25.8	
Effective Green, g (s)					32.2			26.8			26.8	
Actuated g/C Ratio					0.50			0.41			0.41	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					877			600			748	
v/s Ratio Prot											0.09	
v/s Ratio Perm					0.42			c0.12				
v/c Ratio					0.85			0.28			0.21	
Uniform Delay, d1					14.3			12.7			12.3	
Progression Factor					1.00			0.89			1.00	
Incremental Delay, d2					8.1			1.2			0.7	
Delay (s)					22.4			12.5			13.0	
Level of Service					C			B			B	
Approach Delay (s)		0.0			22.4			12.5			13.0	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	19.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0						3.0	3.0		3.0	
Lane Util. Factor		1.00						1.00	1.00		1.00	
Frt		0.88						1.00	0.85		1.00	
Flt Protected		1.00						1.00	1.00		1.00	
Satd. Flow (prot)		1626						1863	1583		1857	
Flt Permitted		1.00						1.00	1.00		0.98	
Satd. Flow (perm)		1626						1863	1583		1821	
Volume (vph)	23	1	260	0	0	0	0	130	292	51	857	0
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.95	0.95	0.95	0.87	0.87	0.87	0.87	0.95
Adj. Flow (vph)	26	1	299	0	0	0	0	149	336	59	985	0
RTOR Reduction (vph)	0	118	0	0	0	0	0	0	98	0	0	0
Lane Group Flow (vph)	0	208	0	0	0	0	0	149	238	0	1044	0
Turn Type	Perm								Perm	Perm		
Protected Phases		4						2			6	
Permitted Phases	4								2	6		
Actuated Green, G (s)		12.0						45.0	45.0		45.0	
Effective Green, g (s)		13.0						46.0	46.0		46.0	
Actuated g/C Ratio		0.20						0.71	0.71		0.71	
Clearance Time (s)		4.0						4.0	4.0		4.0	
Vehicle Extension (s)		3.0						3.0	3.0		3.0	
Lane Grp Cap (vph)		325						1318	1120		1289	
v/s Ratio Prot								0.08				
v/s Ratio Perm		0.13							0.15		c0.57	
v/c Ratio		0.64						0.11	0.21		0.81	
Uniform Delay, d1		23.9						3.0	3.3		6.5	
Progression Factor		1.00						1.00	1.00		1.51	
Incremental Delay, d2		4.3						0.2	0.4		4.4	
Delay (s)		28.1						3.2	3.7		14.2	
Level of Service		C						A	A		B	
Approach Delay (s)		28.1			0.0			3.5			14.2	
Approach LOS		C			A			A			B	

Intersection Summary

HCM Average Control Delay	13.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	93.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					3.0			3.0			3.0	
Lane Util. Factor					1.00			1.00			1.00	
Frt					0.98			1.00			0.97	
Flt Protected					0.96			0.98			1.00	
Satd. Flow (prot)					1747			1821			1810	
Flt Permitted					0.96			0.75			1.00	
Satd. Flow (perm)					1747			1392			1810	
Volume (vph)	0	0	0	325	3	72	325	390	0	0	163	43
Peak-hour factor, PHF	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Adj. Flow (vph)	0	0	0	339	3	75	339	406	0	0	170	45
RTOR Reduction (vph)	0	0	0	0	12	0	0	0	0	0	14	0
Lane Group Flow (vph)	0	0	0	0	405	0	0	745	0	0	201	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)					17.0			40.0			40.0	
Effective Green, g (s)					18.0			41.0			41.0	
Actuated g/C Ratio					0.28			0.63			0.63	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					484			878			1142	
v/s Ratio Prot											0.11	
v/s Ratio Perm					0.23			c0.54				
v/c Ratio					0.84			0.85			0.18	
Uniform Delay, d1					22.1			9.5			5.0	
Progression Factor					1.00			0.71			1.00	
Incremental Delay, d2					11.9			8.7			0.3	
Delay (s)					34.0			15.5			5.3	
Level of Service					C			B			A	
Approach Delay (s)		0.0			34.0			15.5			5.3	
Approach LOS		A			C			B			A	

Intersection Summary

HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0						3.0	3.0		3.0	
Lane Util. Factor		1.00						1.00	1.00		1.00	
Frt		0.90						1.00	0.85		1.00	
Flt Protected		0.99						1.00	1.00		0.99	
Satd. Flow (prot)		1654						1863	1583		1853	
Flt Permitted		0.99						1.00	1.00		0.88	
Satd. Flow (perm)		1654						1863	1583		1644	
Volume (vph)	40	0	118	0	0	0	0	721	634	49	401	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Adj. Flow (vph)	44	0	131	0	0	0	0	801	704	54	446	0
RTOR Reduction (vph)	0	115	0	0	0	0	0	0	149	0	0	0
Lane Group Flow (vph)	0	60	0	0	0	0	0	801	555	0	500	0
Turn Type	Perm								Perm	Perm		
Protected Phases		4						2			6	
Permitted Phases	4								2	6		
Actuated Green, G (s)		6.8						50.2	50.2		50.2	
Effective Green, g (s)		7.8						51.2	51.2		51.2	
Actuated g/C Ratio		0.12						0.79	0.79		0.79	
Clearance Time (s)		4.0						4.0	4.0		4.0	
Vehicle Extension (s)		3.0						3.0	3.0		3.0	
Lane Grp Cap (vph)		198						1467	1247		1295	
v/s Ratio Prot								c0.43				
v/s Ratio Perm		0.04							0.35		0.30	
v/c Ratio		0.30						0.55	0.44		0.39	
Uniform Delay, d1		26.1						2.6	2.3		2.1	
Progression Factor		1.00						1.00	1.00		0.83	
Incremental Delay, d2		0.9						1.5	1.2		0.7	
Delay (s)		27.0						4.0	3.4		2.4	
Level of Service		C						A	A		A	
Approach Delay (s)		27.0			0.0			3.7			2.4	
Approach LOS		C			A			A			A	

Intersection Summary

HCM Average Control Delay	5.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	82.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

20. Ventura & Gonzales

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	152	.10	217	.14*
NBT	2	3200	694	.22*	821	.26
NBR	1	1600	327	.20	392	.25
SBL	1	1600	105	.07*	154	.10
SBT	3	4800	633	.15	1123	.25*
SBR	0	0	91		80	
EBL	1	1600	172	.11*	164	.10
EBT	2	3200	335	.10	436	.14*
EBR	1	1600	67	.04	124	.08
WBL	2	3200	226	.07	611	.19*
WBT	2	3200	327	.12*	512	.19
WBR	0	0	49		98	
TOTAL CAPACITY UTILIZATION				**.52**		**.72**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	141	.09	239	.15*
NBT	2	3200	739	.23*	843	.26
NBR	1	1600	316	.20	386	.24
SBL	1	1600	111	.07*	160	.10
SBT	3	4800	672	.16	1117	.25*
SBR	0	0	91		80	
EBL	1	1600	172	.11*	175	.11*
EBT	2	3200	363	.11	442	.14
EBR	1	1600	61	.04	124	.08
WBL	2	3200	215	.07	540	.17
WBT	2	3200	327	.12*	512	.20*
WBR	0	0	55		115	
TOTAL CAPACITY UTILIZATION				**.53**		**.71**

24. Ventura & Wooley

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	122	.08	130	.08
NBT	2	3200	979	.33*	1111	.37*
NBR	0	0	65		81	
SBL	1	1600	227	.14*	269	.17*
SBT	2	3200	803	.27	1130	.40
SBR	0	0	71		143	
EBL	1	1600	207	.13	175	.11*
EBT	2	3200	623	.19*	559	.17
EBR	1	1600	79	.05	77	.05
WBL	1	1600	113	.07*	273	.17
WBT	2	3200	388	.12	803	.25*
WBR	1	1600	161	.10	206	.13
TOTAL CAPACITY UTILIZATION				**.73**		**.90**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	122	.08	130	.08
NBT	2	3200	985	.33*	1117	.37*
NBR	0	0	71		75	
SBL	1	1600	216	.14*	269	.17*
SBT	2	3200	809	.27	1108	.39
SBR	0	0	65		143	
EBL	1	1600	196	.12	175	.11*
EBT	2	3200	662	.21*	565	.18
EBR	1	1600	90	.06	77	.05
WBL	1	1600	113	.07*	273	.17
WBT	2	3200	388	.12	837	.26*
WBR	1	1600	150	.09	206	.13
TOTAL CAPACITY UTILIZATION				**.75**		**.91**

45. Oxnard & Vineyard

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	82	.03	253	.08
NBT	2	3200	752	.24*	1077	.34*
NBR	2	3200	783	.24	804	.25
SBL	2	3200	99	.03*	181	.06*
SBT	3	4800	774	.18	1036	.26
SBR	0	0	86		209	
EBL	1.5		259	.16	257	
EBT	2.5	6400	1025	.21*	603	.13*
EBR	1	1600	164	.10	128	.08
WBL	3	4800	537	.11	860	.18
WBT	2	3200	413	.13*	964	.31*
WBR	0	0	15		23	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .61 .84

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	88	.03	298	.09
NBT	2	3200	808	.25*	1088	.34*
NBR	2	3200	766	.24	832	.26
SBL	2	3200	99	.03*	181	.06*
SBT	3	4800	864	.20	1042	.26
SBR	0	0	86		198	
EBL	1.5		270	.17	263	
EBT	2.5	6400	1199	.25*	631	.14*
EBR	1	1600	170	.11	128	.08
WBL	3	4800	610	.13	860	.18
WBT	2	3200	413	.13*	964	.31*
WBR	0	0	15		23	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .66 .85

46. Oxnard & Gonzales

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	101	.03	180	.06*
NBT	3	4800	863	.18*	1111	.23
NBR	1	1600	351	.22	307	.19
SBL	2	3200	318	.10*	407	.13
SBT	3	4800	1132	.24	1446	.30*
SBR	1	1600	61	.04	114	.07
EBL	2	3200	244	.08	251	.08
EBT	2	3200	919	.29*	941	.29*
EBR	1	1600	59	.04	130	.08
WBL	2	3200	266	.08*	370	.12*
WBT	3	4800	748	.16	1212	.25
WBR	1	1600	364	.23	431	.27

TOTAL CAPACITY UTILIZATION .65 .77

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	101	.03	174	.05
NBT	3	4800	897	.19*	1167	.24*
NBR	1	1600	334	.21	307	.19
SBL	2	3200	430	.13*	407	.13*
SBT	3	4800	1194	.25	1418	.30
SBR	1	1600	61	.04	114	.07
EBL	2	3200	250	.08	245	.08
EBT	2	3200	925	.29*	1008	.32*
EBR	1	1600	70	.04	136	.09
WBL	2	3200	255	.08*	381	.12*
WBT	3	4800	737	.15	1296	.27
WBR	1	1600	364	.23	425	.27

TOTAL CAPACITY UTILIZATION .69 .81

65. Rose & Gonzales

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	270	.08	397	.12*
NBT	3	4800	1089	.23*	1230	.26
NBR	1	1600	296	.19	197	.12
SBL	2	3200	286	.09*	291	.09
SBT	3	4800	1092	.23	1524	.32*
SBR	1	1600	300	.19	596	.37
EBL	2	3200	597	.19*	553	.17*
EBT	3	4800	880	.18	586	.12
EBR	1	1600	280	.18	232	.15
WBL	1	1600	101	.06	202	.13
WBT	4	6400	363	.06*	1201	.19*
WBR	1	1600	157	.10	339	.21
TOTAL CAPACITY UTILIZATION				**.57**		**.80**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	287	.09	391	.12*
NBT	3	4800	1201	.25*	1336	.28
NBR	1	1600	240	.15	191	.12
SBL	2	3200	460	.14*	291	.09
SBT	3	4800	1103	.23	1546	.32*
SBR	1	1600	261	.16	596	.37
EBL	2	3200	748	.23*	553	.17*
EBT	3	4800	1082	.23	648	.14
EBR	1	1600	330	.21	232	.15
WBL	1	1600	107	.07	135	.08
WBT	4	6400	419	.07*	1347	.21*
WBR	1	1600	185	.12	345	.22
TOTAL CAPACITY UTILIZATION				**.69**		**.82**

66. Rose & Camino del Sol

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	140	.09*	135	.08*
NBT	3	4800	1224	.29	1376	.31
NBR	0	0	170		121	
SBL	1	1600	196	.12	127	.08
SBT	2	3200	1380	.43*	1382	.43*
SBR	f		93		231	
EBL	1	1600	192	.12	150	.09
EBT	2	3200	294	.14*	190	.09*
EBR	0	0	157		93	
WBL	1	1600	156	.10*	282	.18*
WBT	2	3200	139	.04	467	.15
WBR	1	1600	103	.06	267	.17
TOTAL CAPACITY UTILIZATION				**.76**		**.78**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	140	.09*	101	.06*
NBT	3	4800	1291	.31	1410	.32
NBR	0	0	204		121	
SBL	1	1600	280	.18	138	.09
SBT	2	3200	1313	.41*	1376	.43*
SBR	f		99		214	
EBL	1	1600	203	.13	161	.10*
EBT	2	3200	361	.16*	184	.08
EBR	0	0	146		87	
WBL	1	1600	156	.10*	316	.20
WBT	2	3200	145	.05	601	.19*
WBR	1	1600	114	.07	329	.21
TOTAL CAPACITY UTILIZATION				**.76**		**.78**

68. Rose & 5th

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	15	.01*	39	.02*
NBT	3	4800	1217	.29	1366	.30
NBR	0	0	154		76	
SBL	1	1600	34	.02	24	.02
SBT	3	4800	1370	.32*	1425	.34*
SBR	0	0	158		209	
EBL	2	3200	218	.07	307	.10
EBT	1	1600	511	.32*	412	.26*
EBR	1	1600	40	.03	62	.04
WBL	1	1600	148	.09*	273	.17*
WBT	2	3200	250	.08	614	.22
WBR	0	0	21		94	

TOTAL CAPACITY UTILIZATION .74 .79

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	15	.01	39	.02*
NBT	3	4800	1256	.31*	1344	.29
NBR	0	0	221		70	
SBL	1	1600	34	.02*	30	.02
SBT	3	4800	1331	.31	1414	.34*
SBR	0	0	147		215	
EBL	2	3200	235	.07	352	.11
EBT	1	1600	561	.35*	378	.24*
EBR	1	1600	40	.03	56	.04
WBL	1	1600	154	.10*	357	.22*
WBT	2	3200	256	.09	670	.24
WBR	0	0	21		100	

TOTAL CAPACITY UTILIZATION .78 .82

69. Rose & Wooley

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	41	.03*	51	.03*
NBT	2	3200	1104	.35	989	.31
NBR	1	1600	102	.06	72	.05
SBL	1	1600	24	.02	16	.01
SBT	2	3200	1193	.37*	1394	.44*
SBR	f		391		421	
EBL	2	3200	278	.09	377	.12*
EBT	2	3200	369	.13*	250	.10
EBR	0	0	42		62	
WBL	1	1600	68	.04*	128	.08
WBT	2	3200	140	.05	424	.14*
WBR	0	0	16		28	

TOTAL CAPACITY UTILIZATION .57 .73

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	35	.02*	51	.03*
NBT	2	3200	1154	.36	989	.31
NBR	1	1600	102	.06	72	.05
SBL	1	1600	30	.02	22	.01
SBT	2	3200	1171	.37*	1416	.44*
SBR	f		374		449	
EBL	2	3200	328	.10	366	.11*
EBT	2	3200	341	.12*	239	.09
EBR	0	0	36		62	
WBL	1	1600	102	.06*	150	.09
WBT	2	3200	129	.05	430	.14*
WBR	0	0	16		28	

TOTAL CAPACITY UTILIZATION .57 .72

71. Rose & Oxnard

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	166	.10*	224	.14*
NBT	2	3200	913	.29	909	.28
NBR	1	1600	26	.02	16	.01
SBL	2	3200	46	.01	62	.02
SBT	2	3200	813	.25*	1126	.35*
SBR	f		32		52	
EBL	0	0	0		0	
EBT	2	3200	283	.09*	182	.06
EBR	f		200		241	
WBL	0	0	1		0	
WBT	2	3200	200	.06	636	.20*
WBR	f		67		86	
TOTAL CAPACITY UTILIZATION				**.44**		**.69**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	160	.10*	224	.14*
NBT	2	3200	941	.29	903	.28
NBR	1	1600	26	.02	16	.01
SBL	2	3200	63	.02	79	.02
SBT	2	3200	785	.25*	1143	.36*
SBR	f		32		52	
EBL	0	0	0		0	
EBT	2	3200	289	.09*	188	.06
EBR	f		200		241	
WBL	0	0	1		0	
WBT	2	3200	217	.07	647	.20*
WBR	f		78		92	
TOTAL CAPACITY UTILIZATION				**.44**		**.70**

72. Rose & Channel Islands

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	193	.06	317	.10
NBT	2	3200	773	.24*	474	.15*
NBR	1	1600	151	.09	65	.04
SBL	1	1600	96	.06*	178	.11*
SBT	3	4800	857	.21	482	.15
SBR	0	0	153		321	.20
EBL	2	3200	394	.12	395	.12*
EBT	2	3200	605	.19*	409	.13
EBR	1	1600	209	.13	197	.12
WBL	2	3200	208	.07*	311	.10
WBT	2	3200	329	.10	768	.24*
WBR	1	1600	6	.00	9	.01
TOTAL CAPACITY UTILIZATION				**.56**		**.62**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	187	.06	311	.10
NBT	2	3200	801	.25*	474	.15*
NBR	1	1600	173	.11	71	.04
SBL	1	1600	96	.06*	178	.11*
SBT	3	4800	835	.20	510	.16
SBR	0	0	142		310	.19
EBL	2	3200	394	.12	389	.12*
EBT	2	3200	616	.19*	431	.13
EBR	1	1600	209	.13	191	.12
WBL	2	3200	219	.07*	322	.10
WBT	2	3200	351	.11	824	.26*
WBR	1	1600	6	.00	9	.01
TOTAL CAPACITY UTILIZATION				**.57**		**.64**

73. Rose & Bard

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	39	.02	63	.04
NBT	2	3200	849	.27*	710	.22*
NBR	1	1600	17	.01	22	.01
SBL	1	1600	176	.11*	92	.06*
SBT	2	3200	821	.26	689	.22
SBR	1	1600	155	.10	347	.22
EBL	1	1600	241	.15*	170	.11*
EBT	2	3200	205	.08	174	.07
EBR	0	0	39		60	
WBL	1	1600	14	.01	16	.01
WBT	2	3200	125	.08*	364	.16*
WBR	0	0	172	.11	154	
TOTAL CAPACITY UTILIZATION				**.61**		**.55**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	45	.03	74	.05
NBT	2	3200	877	.27*	688	.22*
NBR	1	1600	17	.01	22	.01
SBL	1	1600	182	.11*	98	.06*
SBT	2	3200	821	.26	706	.22
SBR	1	1600	144	.09	358	.22
EBL	1	1600	247	.15*	187	.12*
EBT	2	3200	205	.08	180	.08
EBR	0	0	45		60	
WBL	1	1600	20	.01	16	.01
WBT	2	3200	142	.09*	370	.17*
WBR	0	0	178	.11	160	
TOTAL CAPACITY UTILIZATION				**.62**		**.57**

74. Rose & Pleasant Valley

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	62	.04	101	.06
NBT	2	3200	362	.11*	476	.15*
NBR	1	1600	81	.05	132	.08
SBL	1	1600	174	.11*	137	.09*
SBT	2	3200	481	.15	379	.12
SBR	1	1600	230	.14	284	.18
EBL	1	1600	278	.17*	238	.15*
EBT	2	3200	682	.21	483	.15
EBR	1	1600	61	.04	55	.03
WBL	1	1600	138	.09	124	.08
WBT	2	3200	547	.17*	745	.23*
WBR	1	1600	119	.07	107	.07
TOTAL CAPACITY UTILIZATION				**.56**		**.62**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	62	.04	118	.07
NBT	2	3200	308	.10*	493	.15*
NBR	1	1600	81	.05	121	.08
SBL	1	1600	174	.11*	143	.09*
SBT	2	3200	481	.15	441	.14
SBR	1	1600	152	.10	284	.18
EBL	1	1600	317	.20*	238	.15*
EBT	2	3200	671	.21	382	.12
EBR	1	1600	72	.05	33	.02
WBL	1	1600	127	.08	102	.06
WBT	2	3200	435	.14*	723	.23*
WBR	1	1600	155	.10	152	.10
TOTAL CAPACITY UTILIZATION				**.55**		**.62**

78. Bard & Pleasant Valley

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	3		3	
NBT	1	1600	3	.01*	3	.01*
NBR	0	0	15		14	
SBL	1.5		266		217	
SBT	0.5	3200	4	.08*	11	.07*
SBR	1	1600	21	.01	24	.02
EBL	1	1600	38	.02*	44	.03*
EBT	2	3200	913	.29	739	.23
EBR	0	0	7		3	
WBL	1	1600	20	.01	30	.02
WBT	2	3200	724	.34*	938	.45*
WBR	0	0	361		487	

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .45 .56

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	3		3	
NBT	1	1600	3	.01*	3	.01*
NBR	0	0	15		14	
SBL	1.5		266		228	
SBT	0.5	3200	4	.08*	11	.07*
SBR	1	1600	27	.02	30	.02
EBL	1	1600	38	.02*	44	.03*
EBT	2	3200	913	.29	745	.23
EBR	0	0	7		3	
WBL	1	1600	20	.01	30	.02
WBT	2	3200	724	.35*	921	.45*
WBR	0	0	389		504	

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .46 .56

82. Rice & Camino Del Sol

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	104	.07*	164	.10
NBT	3	4800	1029	.21	1451	.30*
NBR	1	1600	64	.04	46	.03
SBL	1	1600	192	.12	194	.12*
SBT	3	4800	1229	.26*	1366	.28
SBR	d	1600	278	.17	257	.16
EBL	1	1600	191	.12*	232	.15*
EBT	2	3200	220	.07	327	.10
EBR	1	1600	57	.04	57	.04
WBL	1	1600	33	.02	60	.04
WBT	2	3200	150	.05*	289	.09*
WBR	1	1600	119	.07	146	.09

TOTAL CAPACITY UTILIZATION .50 .66

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	76	.05	153	.10*
NBT	3	4800	1460	.30*	1378	.29
NBR	1	1600	64	.04	40	.03
SBL	1	1600	198	.12*	127	.08
SBT	3	4800	1151	.24	1646	.34*
SBR	d	1600	216	.14	291	.18
EBL	1	1600	275	.17*	193	.12*
EBT	2	3200	214	.07	153	.05
EBR	1	1600	51	.03	63	.04
WBL	1	1600	33	.02	60	.04
WBT	2	3200	60	.02*	272	.09*
WBR	1	1600	97	.06	140	.09

TOTAL CAPACITY UTILIZATION .61 .65

84. Rice & Fifth

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	31	.02	60	.04*
NBT	2	3200	1339	.42*	1236	.39
NBR	1	1600	425	.27	331	.21
SBL	1	1600	18	.01*	17	.01
SBT	3	4800	1056	.23	1565	.36*
SBR	0	0	69		158	
EBL	1	1600	86	.05	57	.04
EBT	2	3200	448	.15*	444	.14*
EBR	0	0	16		8	
WBL	1	1600	276	.17*	471	.29*
WBT	2	3200	295	.10	510	.17
WBR	0	0	13		30	
TOTAL CAPACITY UTILIZATION				**.75**		**.83**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	53	.03	77	.05*
NBT	2	3200	1557	.49*	1180	.37
NBR	1	1600	515	.32	247	.15
SBL	1	1600	18	.01*	23	.01
SBT	3	4800	1006	.22	1789	.41*
SBR	0	0	69		158	
EBL	1	1600	108	.07	85	.05
EBT	2	3200	543	.18*	416	.13*
EBR	0	0	22		8	
WBL	1	1600	242	.15*	437	.27*
WBT	2	3200	334	.11	538	.18
WBR	0	0	13		30	
TOTAL CAPACITY UTILIZATION				**.83**		**.86**

85. Rice & Wooley

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	33	.02	87	.05*
NBT	2	3200	1191	.37*	1322	.41
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1030	.32	1541	.48*
SBR	1	1600	225	.14	420	.26
EBL	2	3200	533	.17*	448	.14*
EBT	0	0	0		0	
EBR	1	1600	51	.03	37	.02
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				**.54**		**.67**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	33	.02	93	.06*
NBT	2	3200	1644	.51*	1210	.38
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1142	.36	1720	.54*
SBR	1	1600	265	.17	437	.27
EBL	2	3200	647	.20*	426	.13*
EBT	0	0	0		0	
EBR	1	1600	51	.03	48	.03
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
TOTAL CAPACITY UTILIZATION				**.71**		**.73**

86. Rice & Channel Islands

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	72	.05*	307	.19*
NBT	2	3200	604	.19	1098	.34
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	781	.24*	842	.26*
SBR	d	1600	238	.15	793	.50
EBL	2	3200	549	.17*	269	.08*
EBT	0	0	0		0	
EBR	1	1600	125	.08	37	.02
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					SBR	.18*
TOTAL CAPACITY UTILIZATION				**.46**		**.71**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	72	.05*	240	.15*
NBT	2	3200	694	.22	1020	.32
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	669	.21*	904	.28*
SBR	d	1600	249	.16	899	.56
EBL	2	3200	616	.19*	241	.08*
EBT	0	0	0		0	
EBR	1	1600	97	.06	48	.03
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					SBR	.22*
TOTAL CAPACITY UTILIZATION				**.45**		**.73**

87. SR-1/Rice NB & Pleasant Vly

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	97	.03*	364	.11*
NBT	1	1600	3	.02	7	.02
NBR	0	0	21		23	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	347	.22*	212	.13*
EBT	2	3200	1084	.34	890	.28
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	710	.25*	1461	.52*
WBR	0	0	103		200	
TOTAL CAPACITY UTILIZATION				**.50**		**.76**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	108	.03*	364	.11*
NBT	1	1600	3	.02	7	.02
NBR	0	0	32		23	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	364	.23*	206	.13*
EBT	2	3200	1062	.33	935	.29
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	721	.26*	1455	.52*
WBR	0	0	109		206	
TOTAL CAPACITY UTILIZATION				**.52**		**.76**

89. Rice & Hueneme

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	40	.03*	17	.01*
SBT	0	0	0		0	
SBR	f		297		180	
EBL	2	3200	182	.06*	328	.10*
EBT	1	1600	474	.30	571	.36
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	449	.28*	742	.46*
WBR	f		23		88	

TOTAL CAPACITY UTILIZATION .37 .57

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	40	.03*	17	.01*
SBT	0	0	0		0	
SBR	f		202		225	
EBL	2	3200	216	.07*	289	.09*
EBT	1	1600	452	.28	605	.38
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	516	.32*	725	.45*
WBR	f		23		82	

TOTAL CAPACITY UTILIZATION .42 .55

92. Del Norte & Camino Del Sol

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	69	.04*	155	.10
NBT	2	3200	434	.14	706	.22*
NBR	d	1600	10	.01	7	.00
SBL	1	1600	42	.03	46	.03*
SBT	2	3200	506	.16*	448	.14
SBR	1	1600	193	.12	210	.13
EBL	1	1600	154	.10*	325	.20*
EBT	1	1600	13	.01	10	.01
EBR	1	1600	73	.05	35	.02
WBL	0	0	10		18	
WBT	1	1600	8	.02*	18	.03*
WBR	0	0	9		15	

TOTAL CAPACITY UTILIZATION .32 .48

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	58	.04	177	.11*
NBT	2	3200	613	.19*	381	.12
NBR	d	1600	16	.01	7	.00
SBL	1	1600	36	.02*	40	.03
SBT	2	3200	321	.10	515	.16*
SBR	1	1600	75	.05	204	.13
EBL	1	1600	120	.08*	107	.07*
EBT	1	1600	13	.01	10	.01
EBR	1	1600	73	.05	35	.02
WBL	0	0	10		18	
WBT	1	1600	8	.02*	18	.03*
WBR	0	0	9		15	

TOTAL CAPACITY UTILIZATION .31 .37

94. Del Norte & 5th St

Year 2015 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	3		0	
SBL	1	1600	71	.04*	56	.04*
SBT	0	0	0		0	
SBR	1	1600	244	.15	269	.17
EBL	1	1600	228	.14	194	.12*
EBT	1	1600	751	.47*	518	.32
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	265	.19	847	.58*
WBR	0	0	40		89	
Right Turn Adjustment					SBR	.04*
TOTAL CAPACITY UTILIZATION				**.51**		**.78**

Year 2015 W/Phase 2 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	3		0	
SBL	1	1600	60	.04*	168	.11*
SBT	0	0	0		0	
SBR	1	1600	205	.13	347	.22
EBL	1	1600	340	.21*	82	.05*
EBT	1	1600	689	.43	524	.33
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	310	.27*	774	.55*
WBR	0	0	118		100	
Right Turn Adjustment					SBR	.07*
TOTAL CAPACITY UTILIZATION				**.52**		**.78**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	477	0	221	0	1129	319	0	1212	306
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	530	0	246	0	1254	354	0	1347	340
RTOR Reduction (vph)	0	0	0	0	0	46	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	530	0	200	0	1254	354	0	1347	340
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				19.3		19.3		62.7	90.0		62.7	90.0
Effective Green, g (s)				20.3		20.3		63.7	90.0		63.7	90.0
Actuated g/C Ratio				0.23		0.23		0.71	1.00		0.71	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				774		357		3599	1583		2505	1583
v/s Ratio Prot				c0.15		0.13		0.25			c0.38	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.68		0.56		0.35	0.22		0.54	0.21
Uniform Delay, d1				31.9		30.9		5.1	0.0		6.2	0.0
Progression Factor				1.00		1.00		0.58	1.00		1.00	1.00
Incremental Delay, d2				2.5		1.9		0.2	0.3		0.8	0.3
Delay (s)				34.4		32.8		3.2	0.3		7.0	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			33.9			2.5			5.7	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	9.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	53.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.85						1.00	0.85		0.96	
Flt Protected	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1504						3539	1583		4900	
Flt Permitted	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1504						3539	1583		4900	
Volume (vph)	194	0	202	0	0	0	0	1234	941	0	1400	451
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	223	0	232	0	0	0	0	1418	1082	0	1609	518
RTOR Reduction (vph)	0	25	0	0	0	0	0	0	0	0	44	0
Lane Group Flow (vph)	223	207	0	0	0	0	0	1418	1082	0	2083	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.0	17.0						65.0	90.0		65.0	
Effective Green, g (s)	18.0	18.0						66.0	90.0		66.0	
Actuated g/C Ratio	0.20	0.20						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	336	301						2595	1583		3593	
v/s Ratio Prot	0.13	0.14						0.40			0.43	
v/s Ratio Perm									c0.68			
v/c Ratio	0.66	0.69						0.55	0.68		0.58	
Uniform Delay, d1	33.2	33.4						5.3	0.0		5.6	
Progression Factor	1.00	1.00						1.00	1.00		0.64	
Incremental Delay, d2	4.9	6.4						0.8	2.4		0.6	
Delay (s)	38.1	39.8						6.2	2.4		4.2	
Level of Service	D	D						A	A		A	
Approach Delay (s)		39.0			0.0			4.5			4.2	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					3.0			3.0			3.0	
Lane Util. Factor					1.00			1.00			1.00	
Frt					0.99			1.00			0.97	
Flt Protected					0.95			0.97			1.00	
Satd. Flow (prot)					1767			1812			1811	
Flt Permitted					0.95			0.80			1.00	
Satd. Flow (perm)					1767			1496			1811	
Volume (vph)	0	0	0	619	1	32	83	64	0	0	96	25
Peak-hour factor, PHF	0.93	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.93	0.93
Adj. Flow (vph)	0	0	0	666	1	34	89	69	0	0	103	27
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	0	0	11	0
Lane Group Flow (vph)	0	0	0	0	697	0	0	158	0	0	119	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)					28.9			28.1			28.1	
Effective Green, g (s)					29.9			29.1			29.1	
Actuated g/C Ratio					0.46			0.45			0.45	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					813			670			811	
v/s Ratio Prot											0.07	
v/s Ratio Perm					0.39			c0.11				
v/c Ratio					0.86			0.24			0.15	
Uniform Delay, d1					15.6			11.1			10.6	
Progression Factor					1.00			0.88			1.00	
Incremental Delay, d2					8.9			0.8			0.4	
Delay (s)					24.5			10.5			11.0	
Level of Service					C			B			B	
Approach Delay (s)		0.0			24.5			10.5			11.0	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	20.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	60.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0						3.0	3.0		3.0	
Lane Util. Factor		1.00						1.00	1.00		1.00	
Frt		0.88						1.00	0.85		1.00	
Flt Protected		1.00						1.00	1.00		1.00	
Satd. Flow (prot)		1624						1863	1583		1856	
Flt Permitted		1.00						1.00	1.00		0.98	
Satd. Flow (perm)		1624						1863	1583		1816	
Volume (vph)	24	1	314	0	0	0	0	120	245	48	663	0
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.95	0.95	0.95	0.87	0.87	0.87	0.87	0.95
Adj. Flow (vph)	28	1	361	0	0	0	0	138	282	55	762	0
RTOR Reduction (vph)	0	189	0	0	0	0	0	0	81	0	0	0
Lane Group Flow (vph)	0	201	0	0	0	0	0	138	201	0	817	0
Turn Type	Perm								Perm	Perm		
Protected Phases		4						2			6	
Permitted Phases	4								2	6		
Actuated Green, G (s)		11.6						45.4	45.4		45.4	
Effective Green, g (s)		12.6						46.4	46.4		46.4	
Actuated g/C Ratio		0.19						0.71	0.71		0.71	
Clearance Time (s)		4.0						4.0	4.0		4.0	
Vehicle Extension (s)		3.0						3.0	3.0		3.0	
Lane Grp Cap (vph)		315						1330	1130		1296	
v/s Ratio Prot								0.07				
v/s Ratio Perm		0.12							0.13		c0.45	
v/c Ratio		0.64						0.10	0.18		0.63	
Uniform Delay, d1		24.1						2.9	3.0		4.8	
Progression Factor		1.00						1.00	1.00		2.10	
Incremental Delay, d2		4.2						0.2	0.3		1.6	
Delay (s)		28.3						3.0	3.4		11.7	
Level of Service		C						A	A		B	
Approach Delay (s)		28.3			0.0			3.3			11.7	
Approach LOS		C			A			A			B	

Intersection Summary

HCM Average Control Delay	13.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	83.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	806	0	155	0	1240	462	0	1364	314
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	937	0	180	0	1442	537	0	1586	365
RTOR Reduction (vph)	0	0	0	0	0	22	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	937	0	158	0	1442	537	0	1586	365
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				29.4		29.4		52.6	90.0		52.6	90.0
Effective Green, g (s)				30.4		30.4		53.6	90.0		53.6	90.0
Actuated g/C Ratio				0.34		0.34		0.60	1.00		0.60	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1160		535		3028	1583		2108	1583
v/s Ratio Prot				c0.27		0.10		0.28			c0.45	
v/s Ratio Perm									0.34			0.23
v/c Ratio				0.81		0.30		0.48	0.34		0.75	0.23
Uniform Delay, d1				27.1		21.9		10.3	0.0		13.3	0.0
Progression Factor				1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2				4.2		0.3		0.5	0.6		2.5	0.3
Delay (s)				31.4		22.2		10.8	0.6		15.9	0.3
Level of Service				C		C		B	A		B	A
Approach Delay (s)		0.0			29.9			8.0			13.0	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	14.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.89						1.00	0.85		0.97	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1559						3539	1583		4952	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1559						3539	1583		4952	
Volume (vph)	248	0	130	0	0	0	0	1542	859	0	1825	385
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	264	0	138	0	0	0	0	1640	914	0	1941	410
RTOR Reduction (vph)	0	19	0	0	0	0	0	0	0	0	38	0
Lane Group Flow (vph)	207	176	0	0	0	0	0	1640	914	0	2313	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	13.3	13.3						53.7	75.0		53.7	
Effective Green, g (s)	14.3	14.3						54.7	75.0		54.7	
Actuated g/C Ratio	0.19	0.19						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	321	297						2581	1583		3612	
v/s Ratio Prot	0.12	0.11						0.46			c0.47	
v/s Ratio Perm									c0.58			
v/c Ratio	0.64	0.59						0.64	0.58		0.64	
Uniform Delay, d1	28.0	27.7						5.1	0.0		5.2	
Progression Factor	1.00	1.00						1.00	1.00		1.00	
Incremental Delay, d2	4.4	3.1						1.2	1.5		0.9	
Delay (s)	32.4	30.8						6.3	1.5		6.0	
Level of Service	C	C						A	A		A	
Approach Delay (s)		31.6			0.0			4.6			6.0	
Approach LOS		C			A			A			A	

Intersection Summary

HCM Average Control Delay	7.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					3.0			3.0			3.0	
Lane Util. Factor					1.00			1.00			1.00	
Frt					0.97			1.00			0.97	
Flt Protected					0.96			0.97			1.00	
Satd. Flow (prot)					1742			1809			1815	
Flt Permitted					0.96			0.70			1.00	
Satd. Flow (perm)					1742			1306			1815	
Volume (vph)	0	0	0	294	4	80	351	235	0	0	159	37
Peak-hour factor, PHF	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Adj. Flow (vph)	0	0	0	306	4	83	366	245	0	0	166	39
RTOR Reduction (vph)	0	0	0	0	15	0	0	0	0	0	13	0
Lane Group Flow (vph)	0	0	0	0	378	0	0	611	0	0	192	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)					16.9			40.1			40.1	
Effective Green, g (s)					17.9			41.1			41.1	
Actuated g/C Ratio					0.28			0.63			0.63	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					480			826			1148	
v/s Ratio Prot											0.11	
v/s Ratio Perm					0.22			c0.47				
v/c Ratio					0.79			0.74			0.17	
Uniform Delay, d1					21.8			8.3			4.9	
Progression Factor					1.00			0.74			1.00	
Incremental Delay, d2					8.3			5.4			0.3	
Delay (s)					30.1			11.5			5.2	
Level of Service					C			B			A	
Approach Delay (s)		0.0			30.1			11.5			5.2	
Approach LOS		A			C			B			A	

Intersection Summary			
HCM Average Control Delay	16.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0						3.0	3.0		3.0	
Lane Util. Factor		1.00						1.00	1.00		1.00	
Frt		0.90						1.00	0.85		1.00	
Flt Protected		0.99						1.00	1.00		0.99	
Satd. Flow (prot)		1654						1863	1583		1851	
Flt Permitted		0.99						1.00	1.00		0.89	
Satd. Flow (perm)		1654						1863	1583		1649	
Volume (vph)	33	0	98	0	0	0	0	602	711	52	367	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Adj. Flow (vph)	37	0	109	0	0	0	0	669	790	58	408	0
RTOR Reduction (vph)	0	97	0	0	0	0	0	0	163	0	0	0
Lane Group Flow (vph)	0	49	0	0	0	0	0	669	627	0	466	0
Turn Type	Perm								Perm	Perm		
Protected Phases		4						2			6	
Permitted Phases	4								2	6		
Actuated Green, G (s)		6.4						50.6	50.6		50.6	
Effective Green, g (s)		7.4						51.6	51.6		51.6	
Actuated g/C Ratio		0.11						0.79	0.79		0.79	
Clearance Time (s)		4.0						4.0	4.0		4.0	
Vehicle Extension (s)		3.0						3.0	3.0		3.0	
Lane Grp Cap (vph)		188						1479	1257		1309	
v/s Ratio Prot								0.36				
v/s Ratio Perm		0.03							c0.40		0.28	
v/c Ratio		0.26						0.45	0.50		0.36	
Uniform Delay, d1		26.3						2.2	2.3		1.9	
Progression Factor		1.00						1.00	1.00		0.67	
Incremental Delay, d2		0.7						1.0	1.4		0.6	
Delay (s)		27.1						3.2	3.7		1.9	
Level of Service		C						A	A		A	
Approach Delay (s)		27.1			0.0			3.5			1.9	
Approach LOS		C			A			A			A	

Intersection Summary

HCM Average Control Delay	4.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	84.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	567	0	227	0	1163	319	0	1307	300
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	630	0	252	0	1292	354	0	1452	333
RTOR Reduction (vph)	0	0	0	0	0	41	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	630	0	211	0	1292	354	0	1452	333
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				22.2		22.2		59.8	90.0		59.8	90.0
Effective Green, g (s)				23.2		23.2		60.8	90.0		60.8	90.0
Actuated g/C Ratio				0.26		0.26		0.68	1.00		0.68	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				885		408		3435	1583		2391	1583
v/s Ratio Prot				c0.18		0.13		0.25			c0.41	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.71		0.52		0.38	0.22		0.61	0.21
Uniform Delay, d1				30.4		28.6		6.4	0.0		8.0	0.0
Progression Factor				1.00		1.00		0.64	1.00		1.00	1.00
Incremental Delay, d2				2.7		1.1		0.3	0.3		1.2	0.3
Delay (s)				33.1		29.7		4.3	0.3		9.2	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			32.1			3.4			7.5	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	11.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.86						1.00	0.85		0.96	
Flt Protected	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1516						3539	1583		4905	
Flt Permitted	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1516						3539	1583		4905	
Volume (vph)	211	0	174	0	0	0	0	1245	1014	0	1546	479
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	243	0	200	0	0	0	0	1431	1166	0	1777	551
RTOR Reduction (vph)	0	19	0	0	0	0	0	0	0	0	45	0
Lane Group Flow (vph)	230	194	0	0	0	0	0	1431	1166	0	2283	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.0	17.0						65.0	90.0		65.0	
Effective Green, g (s)	18.0	18.0						66.0	90.0		66.0	
Actuated g/C Ratio	0.20	0.20						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	336	303						2595	1583		3597	
v/s Ratio Prot	0.14	0.13						0.40			0.47	
v/s Ratio Perm									c0.74			
v/c Ratio	0.68	0.64						0.55	0.74		0.63	
Uniform Delay, d1	33.4	33.0						5.4	0.0		6.0	
Progression Factor	1.00	1.00						1.00	1.00		0.73	
Incremental Delay, d2	5.7	4.4						0.8	3.1		0.7	
Delay (s)	39.0	37.4						6.2	3.1		5.1	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.3			0.0			4.8			5.1	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					3.0			3.0			3.0	
Lane Util. Factor					1.00			1.00			1.00	
Frt					1.00			1.00			0.98	
Flt Protected					0.95			0.97			1.00	
Satd. Flow (prot)					1772			1813			1821	
Flt Permitted					0.95			0.70			1.00	
Satd. Flow (perm)					1772			1313			1821	
Volume (vph)	0	0	0	860	1	10	100	81	0	0	180	36
Peak-hour factor, PHF	0.93	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.93	0.93
Adj. Flow (vph)	0	0	0	925	1	11	108	87	0	0	194	39
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	12	0
Lane Group Flow (vph)	0	0	0	0	936	0	0	195	0	0	221	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)					34.0			18.0			18.0	
Effective Green, g (s)					35.0			19.0			19.0	
Actuated g/C Ratio					0.58			0.32			0.32	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					1034			416			577	
v/s Ratio Prot											0.12	
v/s Ratio Perm					0.53			c0.15				
v/c Ratio					0.91			0.47			0.38	
Uniform Delay, d1					11.0			16.5			15.9	
Progression Factor					1.00			1.00			1.00	
Incremental Delay, d2					11.1			3.8			1.9	
Delay (s)					22.1			20.2			17.9	
Level of Service					C			C			B	
Approach Delay (s)		0.0			22.1			20.2			17.9	
Approach LOS		A			C			C			B	

Intersection Summary

HCM Average Control Delay	21.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	79.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0						3.0	3.0		3.0	
Lane Util. Factor		1.00						1.00	1.00		1.00	
Frt		0.87						1.00	0.85		1.00	
Flt Protected		1.00						1.00	1.00		1.00	
Satd. Flow (prot)		1622						1863	1583		1859	
Flt Permitted		1.00						1.00	1.00		0.98	
Satd. Flow (perm)		1622						1863	1583		1828	
Volume (vph)	24	1	380	0	0	0	0	154	269	48	1208	0
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.95	0.95	0.95	0.87	0.87	0.87	0.87	0.95
Adj. Flow (vph)	28	1	437	0	0	0	0	177	309	55	1389	0
RTOR Reduction (vph)	0	71	0	0	0	0	0	0	81	0	0	0
Lane Group Flow (vph)	0	395	0	0	0	0	0	177	228	0	1444	0
Turn Type	Perm								Perm	Perm		
Protected Phases		4						2			6	
Permitted Phases	4								2	6		
Actuated Green, G (s)		27.0						95.0	95.0		95.0	
Effective Green, g (s)		28.0						96.0	96.0		96.0	
Actuated g/C Ratio		0.22						0.74	0.74		0.74	
Clearance Time (s)		4.0						4.0	4.0		4.0	
Vehicle Extension (s)		3.0						3.0	3.0		3.0	
Lane Grp Cap (vph)		349						1376	1169		1350	
v/s Ratio Prot								0.10				
v/s Ratio Perm		0.24							0.14		c0.79	
v/c Ratio		1.13						0.13	0.20		1.07	
Uniform Delay, d1		51.0						4.9	5.2		17.0	
Progression Factor		1.00						1.00	1.00		1.00	
Incremental Delay, d2		89.3						0.2	0.4		45.5	
Delay (s)		140.3						5.1	5.6		62.5	
Level of Service		F						A	A		E	
Approach Delay (s)		140.3			0.0			5.4			62.5	
Approach LOS		F			A			A			E	

Intersection Summary

HCM Average Control Delay	66.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	117.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	789	0	172	0	1234	512	0	1364	314
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	917	0	200	0	1435	595	0	1586	365
RTOR Reduction (vph)	0	0	0	0	0	22	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	917	0	178	0	1435	595	0	1586	365
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				29.1		29.1		52.9	90.0		52.9	90.0
Effective Green, g (s)				30.1		30.1		53.9	90.0		53.9	90.0
Actuated g/C Ratio				0.33		0.33		0.60	1.00		0.60	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1148		529		3045	1583		2119	1583
v/s Ratio Prot				c0.27		0.11		0.28			c0.45	
v/s Ratio Perm									0.38			0.23
v/c Ratio				0.80		0.34		0.47	0.38		0.75	0.23
Uniform Delay, d1				27.2		22.5		10.1	0.0		13.1	0.0
Progression Factor				1.00		1.00		0.58	1.00		1.00	1.00
Incremental Delay, d2				4.0		0.4		0.4	0.5		2.5	0.3
Delay (s)				31.2		22.8		6.3	0.5		15.6	0.3
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			29.7			4.6			12.7	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	13.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.89						1.00	0.85		0.97	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1556						3539	1583		4944	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1556						3539	1583		4944	
Volume (vph)	242	0	130	0	0	0	0	1587	865	0	1786	407
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	257	0	138	0	0	0	0	1688	920	0	1900	433
RTOR Reduction (vph)	0	19	0	0	0	0	0	0	0	0	31	0
Lane Group Flow (vph)	204	172	0	0	0	0	0	1688	920	0	2302	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	15.9	15.9						66.1	90.0		66.1	
Effective Green, g (s)	16.9	16.9						67.1	90.0		67.1	
Actuated g/C Ratio	0.19	0.19						0.75	1.00		0.75	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	316	292						2639	1583		3686	
v/s Ratio Prot	0.12	0.11						c0.48			0.47	
v/s Ratio Perm									c0.58			
v/c Ratio	0.65	0.59						0.64	0.58		0.62	
Uniform Delay, d1	33.8	33.4						5.6	0.0		5.5	
Progression Factor	1.00	1.00						1.14	1.00		0.77	
Incremental Delay, d2	4.5	3.2						1.1	1.4		0.5	
Delay (s)	38.3	36.6						7.5	1.4		4.7	
Level of Service	D	D						A	A		A	
Approach Delay (s)		37.4			0.0			5.4			4.7	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					3.0			3.0			3.0	
Lane Util. Factor					1.00			1.00			1.00	
Frt					0.98			1.00			0.97	
Flt Protected					0.96			0.98			1.00	
Satd. Flow (prot)					1748			1833			1802	
Flt Permitted					0.96			0.79			1.00	
Satd. Flow (perm)					1748			1466			1802	
Volume (vph)	0	0	0	333	4	69	362	745	0	0	170	54
Peak-hour factor, PHF	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Adj. Flow (vph)	0	0	0	347	4	72	377	776	0	0	177	56
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	0	0	10	0
Lane Group Flow (vph)	0	0	0	0	416	0	0	1153	0	0	223	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)					23.0			79.0			79.0	
Effective Green, g (s)					24.0			80.0			80.0	
Actuated g/C Ratio					0.22			0.73			0.73	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					381			1066			1311	
v/s Ratio Prot											0.12	
v/s Ratio Perm					0.24			c0.79				
v/c Ratio					1.09			1.08			0.17	
Uniform Delay, d1					43.0			15.0			4.7	
Progression Factor					1.00			1.00			1.00	
Incremental Delay, d2					73.1			52.4			0.3	
Delay (s)					116.1			67.4			4.9	
Level of Service					F			E			A	
Approach Delay (s)		0.0			116.1			67.4			4.9	
Approach LOS		A			F			E			A	

Intersection Summary

HCM Average Control Delay	70.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	104.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0						3.0	3.0		3.0	
Lane Util. Factor		1.00						1.00	1.00		1.00	
Frt		0.89						1.00	0.85		1.00	
Flt Protected		0.99						1.00	1.00		0.99	
Satd. Flow (prot)		1645						1863	1583		1852	
Flt Permitted		0.99						1.00	1.00		0.71	
Satd. Flow (perm)		1645						1863	1583		1314	
Volume (vph)	33	0	132	0	0	0	0	1100	756	52	417	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Adj. Flow (vph)	37	0	147	0	0	0	0	1222	840	58	463	0
RTOR Reduction (vph)	0	130	0	0	0	0	0	0	160	0	0	0
Lane Group Flow (vph)	0	54	0	0	0	0	0	1222	680	0	521	0
Turn Type	Perm								Perm	Perm		
Protected Phases		4						2			6	
Permitted Phases	4								2	6		
Actuated Green, G (s)		8.2						63.8	63.8		63.8	
Effective Green, g (s)		9.2						64.8	64.8		64.8	
Actuated g/C Ratio		0.12						0.81	0.81		0.81	
Clearance Time (s)		4.0						4.0	4.0		4.0	
Vehicle Extension (s)		3.0						3.0	3.0		3.0	
Lane Grp Cap (vph)		189						1509	1282		1064	
v/s Ratio Prot								c0.66				
v/s Ratio Perm		0.03							0.43		0.40	
v/c Ratio		0.29						0.81	0.53		0.49	
Uniform Delay, d1		32.4						4.2	2.5		2.4	
Progression Factor		1.00						1.00	1.00		1.00	
Incremental Delay, d2		0.8						4.8	1.6		1.6	
Delay (s)		33.2						9.0	4.1		4.0	
Level of Service		C						A	A		A	
Approach Delay (s)		33.2			0.0			7.0			4.0	
Approach LOS		C			A			A			A	

Intersection Summary

HCM Average Control Delay	8.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	91.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

24. Ventura & Wooley

Year 2015 W/Project Phase 2 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	122	.08	130	.08
NBT	3	4800	985	.22*	1117	.25*
NBR	0	0	71		75	
SBL	1	1600	216	.14*	269	.17*
SBT	3	4800	809	.18	1108	.26
SBR	0	0	65		143	
EBL	1	1600	196	.12	175	.11*
EBT	2	3200	662	.21*	565	.18
EBR	1	1600	90	.06	77	.05
WBL	1	1600	113	.07*	273	.17
WBT	2	3200	388	.12	837	.26*
WBR	1	1600	150	.09	206	.13

TOTAL CAPACITY UTILIZATION .64 .79

45. Oxnard & Vineyard

Year 2015 W/Project Phase 2 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	88	.03*	298	.09*
NBT	3	4800	808	.17	1088	.23
NBR	2	3200	766	.24	832	.26
SBL	2	3200	99	.03	181	.06
SBT	3	4800	864	.20*	1042	.26*
SBR	0	0	86		198	
EBL	1.5		270	.17	263	
EBT	2.5	6400	1199	.25*	631	.14*
EBR	1	1600	170	.11	128	.08
WBL	3	4800	610	.13	860	.18
WBT	2	3200	413	.13*	964	.31*
WBR	0	0	15		23	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .61 .80

46. Oxnard & Gonzales

Year 2015 W/Project Phase 2 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	101	.03	174	.05
NBT	3	4800	897	.19*	1167	.24*
NBR	1	1600	334	.21	307	.19
SBL	2	3200	430	.13*	407	.13*
SBT	3	4800	1194	.25	1418	.30
SBR	1	1600	61	.04	114	.07
EBL	2	3200	250	.08	245	.08*
EBT	3	4800	925	.19*	1008	.21
EBR	1	1600	70	.04	136	.09
WBL	2	3200	255	.08*	381	.12
WBT	3	4800	737	.15	1296	.27*
WBR	1	1600	364	.23	425	.27

TOTAL CAPACITY UTILIZATION .59 .72

65. Rose & Gonzales

Year 2015 W/Project Phase 2 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	287	.09	391	.12
NBT	3	4800	1201	.25*	1336	.28*
NBR	1	1600	240	.15	191	.12
SBL	2	3200	460	.14*	291	.09*
SBT	4	6400	1103	.17	1546	.24
SBR	1	1600	261	.16	596	.37
EBL	2	3200	748	.23*	553	.17*
EBT	3	4800	1082	.23	648	.14
EBR	1	1600	330	.21	232	.15
WBL	1	1600	107	.07	135	.08
WBT	4	6400	419	.07*	1347	.21*
WBR	1	1600	185	.12	345	.22

TOTAL CAPACITY UTILIZATION .69 .75

68. Rose & 5th

Year 2015 W/Project Phase 2 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	15	.01	39	.02*
NBT	3	4800	1256	.31*	1344	.29
NBR	0	0	221		70	
SBL	1	1600	34	.02*	30	.02
SBT	3	4800	1331	.31	1414	.34*
SBR	0	0	147		215	
EBL	2	3200	235	.07	352	.11*
EBT	2	3200	561	.18*	378	.12
EBR	1	1600	40	.03	56	.04
WBL	1	1600	154	.10*	357	.22
WBT	2	3200	256	.09	670	.24*
WBR	0	0	21		100	

TOTAL CAPACITY UTILIZATION .61 .71

84. Rice & Fifth

Year 2015 W/Project Phase 2 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	53	.03	77	.05*
NBT	2	3200	1557	.49*	1180	.37
NBR	1	1600	515	.32	247	.15
SBL	1	1600	18	.01*	23	.01
SBT	3	4800	1006	.22	1789	.41*
SBR	0	0	69		158	
EBL	1	1600	108	.07	85	.05
EBT	2	3200	543	.18*	416	.13*
EBR	0	0	22		8	
WBL	2	3200	242	.08*	437	.14*
WBT	2	3200	334	.11	538	.18
WBR	0	0	13		30	

TOTAL CAPACITY UTILIZATION .76 .73

86. Rice & Channel Islands

Year 2015 W/Project Phase 2 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	72	.05*	240	.15*
NBT	2	3200	694	.22	1020	.32
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	669	.21*	904	.28*
SBR	f		249		899	
EBL	2	3200	616	.19*	241	.08*
EBT	0	0	0		0	
EBR	1	1600	97	.06	48	.03
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .45 .51

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.95		1.00	0.95			0.95	1.00
Frt				1.00	1.00		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.95		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1682		1770	3539			3539	1583
Flt Permitted				0.95	0.95		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1682		1770	3539			3539	1583
Volume (vph)	0	0	0	860	1	10	100	81	0	0	180	36
Peak-hour factor, PHF	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Adj. Flow (vph)	0	0	0	896	1	10	104	84	0	0	188	38
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	31
Lane Group Flow (vph)	0	0	0	475	431	0	104	84	0	0	188	7
Turn Type				Prot			Prot					Perm
Protected Phases				3	8		5	2			6	
Permitted Phases												6
Actuated Green, G (s)				32.7	32.7		5.6	19.3			9.7	9.7
Effective Green, g (s)				33.7	33.7		6.6	20.3			10.7	10.7
Actuated g/C Ratio				0.56	0.56		0.11	0.34			0.18	0.18
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				944	945		195	1197			631	282
v/s Ratio Prot				c0.28	0.26		c0.06	0.02			c0.05	
v/s Ratio Perm												0.00
v/c Ratio				0.50	0.46		0.53	0.07			0.30	0.02
Uniform Delay, d1				8.0	7.7		25.2	13.5			21.4	20.3
Progression Factor				1.00	1.00		0.94	0.93			1.00	1.00
Incremental Delay, d2				0.4	0.4		2.8	0.1			1.2	0.2
Delay (s)				8.5	8.1		26.6	12.6			22.6	20.5
Level of Service				A	A		C	B			C	C
Approach Delay (s)		0.0			8.3			20.4			22.2	
Approach LOS		A			A			C			C	

Intersection Summary

HCM Average Control Delay	12.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱					↑↑	↱	↰	↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		1.00					0.95	1.00	1.00	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		1583					3539	1583	1770	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		1583					3539	1583	1770	3539	
Volume (vph)	24	0	380	0	0	0	0	154	269	48	1208	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Adj. Flow (vph)	27	0	422	0	0	0	0	171	299	53	1342	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	27	0	422	0	0	0	0	171	299	53	1342	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	1.6		60.0					41.4	60.0	5.0	50.4	
Effective Green, g (s)	2.6		60.0					42.4	60.0	6.0	51.4	
Actuated g/C Ratio	0.04		1.00					0.71	1.00	0.10	0.86	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	77		1583					2501	1583	177	3032	
v/s Ratio Prot								0.05		0.03	c0.38	
v/s Ratio Perm	0.02		c0.27						0.19			
v/c Ratio	0.35		0.27					0.07	0.19	0.30	0.44	
Uniform Delay, d1	27.9		0.0					2.7	0.0	25.1	1.0	
Progression Factor	1.00		1.00					1.00	1.00	1.17	0.29	
Incremental Delay, d2	2.8		0.4					0.1	0.3	0.9	0.4	
Delay (s)	30.6		0.4					2.8	0.3	30.2	0.7	
Level of Service	C		A					A	A	C	A	
Approach Delay (s)		2.2			0.0			1.2			1.9	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	1.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.95		1.00	0.95			0.95	1.00
Frt				1.00	0.95		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.97		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1626		1770	3539			3539	1583
Flt Permitted				0.95	0.97		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1681	1626		1770	3539			3539	1583
Volume (vph)	0	0	0	333	4	69	362	745	0	0	170	54
Peak-hour factor, PHF	0.93	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.93	0.95	0.96	0.96
Adj. Flow (vph)	0	0	0	347	4	72	377	776	0	0	177	56
RTOR Reduction (vph)	0	0	0	0	34	0	0	0	0	0	0	39
Lane Group Flow (vph)	0	0	0	215	174	0	377	776	0	0	177	17
Turn Type				Perm			Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8								6
Actuated Green, G (s)				12.2	12.2		18.1	39.8			17.7	17.7
Effective Green, g (s)				13.2	13.2		19.1	40.8			18.7	18.7
Actuated g/C Ratio				0.22	0.22		0.32	0.68			0.31	0.31
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				370	358		563	2407			1103	493
v/s Ratio Prot							c0.21	c0.22			0.05	
v/s Ratio Perm				c0.13	0.11							0.01
v/c Ratio				0.58	0.49		0.67	0.32			0.16	0.04
Uniform Delay, d1				20.9	20.4		17.7	3.9			15.0	14.4
Progression Factor				1.00	1.00		0.78	0.34			1.00	1.00
Incremental Delay, d2				2.3	1.0		2.8	0.3			0.3	0.1
Delay (s)				23.2	21.5		16.7	1.7			15.3	14.5
Level of Service				C	C		B	A			B	B
Approach Delay (s)		0.0			22.4			6.6			15.1	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	11.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	47.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00		1.00					0.95	1.00	1.00	0.95	
Frt	1.00		0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		1583					3539	1583	1770	3539	
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		1583					3539	1583	1770	3539	
Volume (vph)	33	0	132	0	0	0	0	1100	756	52	417	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.95
Adj. Flow (vph)	37	0	147	0	0	0	0	1222	840	58	463	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	37	0	147	0	0	0	0	1222	840	58	463	0
Turn Type	custom		Free						Free	Prot		
Protected Phases								2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	3.1		60.0					42.4	60.0	2.5	48.9	
Effective Green, g (s)	4.1		60.0					43.4	60.0	3.5	49.9	
Actuated g/C Ratio	0.07		1.00					0.72	1.00	0.06	0.83	
Clearance Time (s)	4.0							4.0		4.0	4.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	121		1583					2560	1583	103	2943	
v/s Ratio Prot								0.35		0.03	0.13	
v/s Ratio Perm	0.02		0.09						c0.53			
v/c Ratio	0.31		0.09					0.48	0.53	0.56	0.16	
Uniform Delay, d1	26.6		0.0					3.5	0.0	27.5	1.0	
Progression Factor	1.00		1.00					1.00	1.00	1.01	0.03	
Incremental Delay, d2	1.4		0.1					0.6	1.3	6.3	0.1	
Delay (s)	28.0		0.1					4.1	1.3	34.1	0.1	
Level of Service	C		A					A	A	C	A	
Approach Delay (s)		5.7			0.0			3.0			3.9	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	3.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	47.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

20. Ventura & Gonzales

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	151	.09	238	.15*
NBT	2	3200	826	.26*	944	.29
NBR	1	1600	351	.22	381	.24
SBL	1	1600	123	.08*	203	.13
SBT	3	4800	765	.18	1262	.28*
SBR	0	0	114		87	
EBL	1	1600	208	.13*	199	.12
EBT	2	3200	317	.10	444	.14*
EBR	1	1600	81	.05	129	.08
WBL	2	3200	241	.08	657	.21*
WBT	2	3200	328	.12*	528	.20
WBR	0	0	62		108	

TOTAL CAPACITY UTILIZATION .59 .78

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	135	.08	271	.17*
NBT	2	3200	892	.28*	977	.31
NBR	1	1600	335	.21	373	.23
SBL	1	1600	131	.08*	211	.13
SBT	3	4800	822	.20	1254	.28*
SBR	0	0	114		87	
EBL	1	1600	208	.13*	215	.13*
EBT	2	3200	358	.11	452	.14
EBR	1	1600	73	.05	129	.08
WBL	2	3200	225	.07	554	.17
WBT	2	3200	328	.12*	528	.21*
WBR	0	0	70		133	

TOTAL CAPACITY UTILIZATION .61 .79

24. Ventura & Wooley

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	158	.10	170	.11
NBT	3	4800	936	.21*	1104	.25*
NBR	0	0	67		87	
SBL	1	1600	318	.20*	366	.23*
SBT	3	4800	782	.18	1114	.26
SBR	0	0	64		139	
EBL	1	1600	205	.13	197	.12
EBT	2	3200	645	.20*	656	.21*
EBR	1	1600	106	.07	68	.04
WBL	1	1600	132	.08*	315	.20*
WBT	2	3200	425	.13	912	.29
WBR	1	1600	147	.09	197	.12

TOTAL CAPACITY UTILIZATION .69 .89

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	158	.10	170	.11
NBT	3	4800	944	.21*	1112	.25*
NBR	0	0	75		79	
SBL	1	1600	302	.19*	366	.23*
SBT	3	4800	790	.18	1081	.25
SBR	0	0	56		139	
EBL	1	1600	189	.12	197	.12*
EBT	2	3200	702	.22*	664	.21
EBR	1	1600	122	.08	68	.04
WBL	1	1600	132	.08*	315	.20
WBT	2	3200	425	.13	961	.30*
WBR	1	1600	131	.08	197	.12

TOTAL CAPACITY UTILIZATION .70 .90

45. Oxnard & Vineyard

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	81	.03*	222	.07*
NBT	3	4800	895	.19	1361	.28
NBR	2	3200	785	.25	823	.26
SBL	2	3200	99	.03	180	.06
SBT	3	4800	910	.21*	1198	.30*
SBR	0	0	77		233	
EBL	1.5		260	.16	275	
EBT	2.5	6400	923	.19*	609	.14*
EBR	1	1600	156	.10	118	.07
WBL	3	4800	495	.10	830	.17
WBT	2	3200	392	.13*	913	.29*
WBR	0	0	13		25	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .56 .80

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	89	.03*	288	.09*
NBT	3	4800	977	.20	1377	.29
NBR	2	3200	760	.24	864	.27
SBL	2	3200	99	.03	180	.06
SBT	3	4800	1041	.23*	1206	.30*
SBR	0	0	77		217	
EBL	1.5		276	.17	283	
EBT	2.5	6400	1177	.25*	650	.15*
EBR	1	1600	164	.10	118	.07
WBL	3	4800	602	.13	830	.17
WBT	2	3200	392	.13*	913	.29*
WBR	0	0	13		25	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .64 .83

65. Rose & Gonzales

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	274	.09	398	.12*
NBT	3	4800	1063	.22*	1260	.26
NBR	1	1600	367	.23	268	.17
SBL	2	3200	267	.08*	277	.09
SBT	4	6400	1145	.18	1560	.24*
SBR	1	1600	304	.19	580	.36
EBL	2	3200	518	.16	525	.16*
EBT	3	4800	897	.19*	587	.12
EBR	1	1600	310	.19	258	.16
WBL	1	1600	117	.07*	238	.15
WBT	4	6400	379	.06	1287	.20*
WBR	1	1600	171	.11	393	.25

TOTAL CAPACITY UTILIZATION .56 .72

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	299	.09	390	.12
NBT	3	4800	1227	.26*	1416	.29*
NBR	1	1600	285	.18	260	.16
SBL	2	3200	521	.16*	277	.09*
SBT	4	6400	1161	.18	1593	.25
SBR	1	1600	247	.15	580	.36
EBL	2	3200	739	.23	525	.16*
EBT	3	4800	1192	.25*	677	.14
EBR	1	1600	384	.24	258	.16
WBL	1	1600	125	.08*	140	.09
WBT	4	6400	461	.07	1500	.23*
WBR	1	1600	212	.13	401	.25

TOTAL CAPACITY UTILIZATION .75 .77

66. Rose & Camino del Sol

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	150	.09*	163	.10*
NBT	3	4800	1269	.29	1458	.32
NBR	0	0	137		100	
SBL	1	1600	207	.13	118	.07
SBT	2	3200	1517	.47*	1481	.46*
SBR	f		106		207	
EBL	1	1600	194	.12	163	.10
EBT	2	3200	330	.16*	200	.09*
EBR	0	0	175		92	
WBL	1	1600	161	.10*	305	.19*
WBT	2	3200	133	.04	474	.15
WBR	1	1600	112	.07	288	.18

TOTAL CAPACITY UTILIZATION .82 .84

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	150	.09*	114	.07*
NBT	3	4800	1367	.32	1507	.33
NBR	0	0	186		100	
SBL	1	1600	330	.21	134	.08
SBT	2	3200	1419	.44*	1473	.46*
SBR	f		114		182	
EBL	1	1600	210	.13	179	.11*
EBT	2	3200	428	.18*	192	.09
EBR	0	0	159		84	
WBL	1	1600	161	.10*	354	.22
WBT	2	3200	141	.04	671	.21*
WBR	1	1600	128	.08	378	.24

TOTAL CAPACITY UTILIZATION .81 .85

68. Rose & 5th

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	13	.01*	52	.03*
NBT	3	4800	1248	.30	1474	.33
NBR	0	0	196		94	
SBL	1	1600	30	.02	20	.01
SBT	3	4800	1524	.35*	1544	.37*
SBR	0	0	165		209	
EBL	2	3200	209	.07	288	.09
EBT	2	3200	564	.18*	481	.15*
EBR	1	1600	47	.03	78	.05
WBL	1	1600	158	.10*	315	.20*
WBT	2	3200	243	.08	650	.24
WBR	0	0	17		113	

TOTAL CAPACITY UTILIZATION .64 .75

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	13	.01	52	.03*
NBT	3	4800	1305	.33*	1441	.32
NBR	0	0	294		86	
SBL	1	1600	30	.02*	28	.02
SBT	3	4800	1467	.34	1528	.36*
SBR	0	0	149		217	
EBL	2	3200	234	.07	354	.11
EBT	2	3200	638	.20*	432	.14*
EBR	1	1600	47	.03	70	.04
WBL	1	1600	166	.10*	438	.27*
WBT	2	3200	251	.08	732	.27
WBR	0	0	17		121	

TOTAL CAPACITY UTILIZATION .65 .80

69. Rose & Wooley

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	47	.03*	64	.04*
NBT	2	3200	1152	.36	1093	.34
NBR	1	1600	101	.06	68	.04
SBL	1	1600	26	.02	20	.01
SBT	2	3200	1335	.42*	1496	.47*
SBR	f		390		428	
EBL	2	3200	309	.10	411	.13*
EBT	2	3200	423	.15*	280	.11
EBR	0	0	48		65	
WBL	1	1600	72	.05*	138	.09
WBT	2	3200	140	.05	476	.16*
WBR	0	0	14		29	
TOTAL CAPACITY UTILIZATION				**.65**		**.80**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	39	.02*	64	.04*
NBT	2	3200	1226	.38	1093	.34
NBR	1	1600	101	.06	68	.04
SBL	1	1600	34	.02	28	.02
SBT	2	3200	1302	.41*	1529	.48*
SBR	f		365		469	
EBL	2	3200	383	.12	395	.12*
EBT	2	3200	382	.13*	264	.10
EBR	0	0	40		65	
WBL	1	1600	121	.08*	171	.11
WBT	2	3200	124	.04	484	.16*
WBR	0	0	14		29	
TOTAL CAPACITY UTILIZATION				**.64**		**.80**

71. Rose & Oxnard

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	177	.11*	279	.17*
NBT	2	3200	1019	.32	1026	.32
NBR	1	1600	21	.01	11	.01
SBL	2	3200	54	.02	64	.02
SBT	2	3200	972	.30*	1201	.38*
SBR	f		34		54	
EBL	0	0	0		0	
EBT	2	3200	265	.08*	168	.05
EBR	f		196		181	
WBL	0	0	0		0	
WBT	2	3200	164	.05	568	.18*
WBR	f		61		87	
TOTAL CAPACITY UTILIZATION				**.49**		**.73**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	169	.11*	279	.17*
NBT	2	3200	1060	.33	1018	.32
NBR	1	1600	21	.01	11	.01
SBL	2	3200	79	.02	89	.03
SBT	2	3200	931	.29*	1226	.38*
SBR	f		34		54	
EBL	0	0	0		0	
EBT	2	3200	273	.09*	176	.06
EBR	f		196		181	
WBL	0	0	0		0	
WBT	2	3200	189	.06	584	.18*
WBR	f		77		95	
TOTAL CAPACITY UTILIZATION				**.49**		**.73**

72. Rose & Channel Islands

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	225	.07*	358	.11
NBT	2	3200	875	.27	786	.25*
NBR	1	1600	191	.12	107	.07
SBL	1	1600	87	.05	165	.10*
SBT	3	4800	1101	.26*	768	.22
SBR	0	0	166		311	
EBL	2	3200	410	.13	347	.11*
EBT	2	3200	573	.18*	422	.13
EBR	1	1600	222	.14	204	.13
WBL	2	3200	249	.08*	338	.11
WBT	2	3200	366	.11	772	.24*
WBR	1	1600	7	.00	9	.01
TOTAL CAPACITY UTILIZATION				**.59**		**.70**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	217	.07	350	.11
NBT	2	3200	916	.29*	786	.25*
NBR	1	1600	224	.14	115	.07
SBL	1	1600	87	.05*	165	.10*
SBT	3	4800	1068	.25	809	.23
SBR	0	0	150		295	
EBL	2	3200	410	.13	339	.11*
EBT	2	3200	589	.18*	455	.14
EBR	1	1600	222	.14	196	.12
WBL	2	3200	265	.08*	354	.11
WBT	2	3200	399	.12	854	.27*
WBR	1	1600	7	.00	9	.01
TOTAL CAPACITY UTILIZATION				**.60**		**.73**

73. Rose & Bard

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	46	.03	76	.05
NBT	2	3200	1023	.32*	1010	.32*
NBR	1	1600	15	.01	24	.02
SBL	1	1600	161	.10*	108	.07*
SBT	2	3200	1150	.36	823	.26
SBR	1	1600	157	.10	381	.24
EBL	1	1600	244	.15*	170	.11*
EBT	2	3200	193	.07	196	.08
EBR	0	0	46		73	
WBL	1	1600	19	.01	17	.01
WBT	2	3200	130	.08*	376	.17*
WBR	0	0	171	.11	163	
TOTAL CAPACITY UTILIZATION				**.65**		**.67**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	54	.03	92	.06
NBT	2	3200	1064	.33*	977	.31*
NBR	1	1600	15	.01	24	.02
SBL	1	1600	169	.11*	116	.07*
SBT	2	3200	1150	.36	848	.26
SBR	1	1600	141	.09	397	.25
EBL	1	1600	252	.16*	195	.12*
EBT	2	3200	193	.08	204	.09
EBR	0	0	54		73	
WBL	1	1600	27	.02	17	.01
WBT	2	3200	155	.10*	384	.17*
WBR	0	0	179	.11	171	
TOTAL CAPACITY UTILIZATION				**.70**		**.67**

74. Rose & Pleasant Valley

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	72	.05	127	.08
NBT	2	3200	575	.18*	774	.24*
NBR	1	1600	107	.07	215	.13
SBL	1	1600	196	.12*	131	.08*
SBT	2	3200	794	.25	533	.17
SBR	1	1600	280	.18	303	.19
EBL	1	1600	289	.18*	242	.15*
EBT	2	3200	704	.22	549	.17
EBR	1	1600	87	.05	80	.05
WBL	1	1600	225	.14	173	.11
WBT	2	3200	608	.19*	803	.25*
WBR	1	1600	126	.08	91	.06
TOTAL CAPACITY UTILIZATION				**.67**		**.72**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	72	.05*	152	.10
NBT	2	3200	496	.16	799	.25*
NBR	1	1600	107	.07	199	.12
SBL	1	1600	196	.12	139	.09*
SBT	2	3200	794	.25*	623	.19
SBR	1	1600	165	.10	303	.19
EBL	1	1600	346	.22*	242	.15*
EBT	2	3200	688	.22	401	.13
EBR	1	1600	103	.06	47	.03
WBL	1	1600	209	.13	140	.09
WBT	2	3200	444	.14*	770	.24*
WBR	1	1600	179	.11	157	.10
TOTAL CAPACITY UTILIZATION				**.66**		**.73**

78. Bard & Pleasant Valley

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	5		5	
NBT	1	1600	5	.02*	5	.01*
NBR	0	0	17		13	
SBL	1.5		237		245	
SBT	0.5	3200	6	.08*	10	.08*
SBR	1	1600	27	.02	26	.02
EBL	1	1600	28	.02*	46	.03*
EBT	2	3200	905	.29	916	.29
EBR	0	0	8		5	
WBL	1	1600	23	.01	23	.01
WBT	2	3200	852	.38*	962	.44*
WBR	0	0	360		448	
TOTAL CAPACITY UTILIZATION				**.50**		**.56**

Note: Assumes N/S Split Phasing

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	5		5	
NBT	1	1600	5	.02*	5	.01*
NBR	0	0	17		13	
SBL	1.5		237		261	
SBT	0.5	3200	6	.08*	10	.08*
SBR	1	1600	35	.02	34	.02
EBL	1	1600	28	.02*	46	.03*
EBT	2	3200	905	.29	924	.29
EBR	0	0	8		5	
WBL	1	1600	23	.01	23	.01
WBT	2	3200	852	.39*	937	.44*
WBR	0	0	401		473	
TOTAL CAPACITY UTILIZATION				**.51**		**.56**

Note: Assumes N/S Split Phasing

82. Rice & Camino Del Sol

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	106	.07*	129	.08
NBT	3	4800	1169	.24	1664	.35*
NBR	1	1600	46	.03	51	.03
SBL	1	1600	182	.11	290	.18*
SBT	3	4800	1376	.29*	1560	.33
SBR	d	1600	412	.26	275	.17
EBL	1	1600	244	.15*	322	.20*
EBT	2	3200	230	.07	435	.14
EBR	1	1600	45	.03	55	.03
WBL	1	1600	26	.02	44	.03
WBT	2	3200	166	.05*	239	.07*
WBR	1	1600	166	.10	114	.07
TOTAL CAPACITY UTILIZATION				**.56**		**.80**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	65	.04	113	.07*
NBT	3	4800	1800	.38*	1557	.32
NBR	1	1600	46	.03	43	.03
SBL	1	1600	190	.12*	192	.12
SBT	3	4800	1261	.26	1970	.41*
SBR	d	1600	322	.20	324	.20
EBL	1	1600	367	.23*	265	.17*
EBT	2	3200	222	.07	181	.06
EBR	1	1600	37	.02	63	.04
WBL	1	1600	26	.02	44	.03
WBT	2	3200	35	.01*	214	.07*
WBR	1	1600	133	.08	106	.07
TOTAL CAPACITY UTILIZATION				**.74**		**.72**

84. Rice & Fifth

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	44	.03	84	.05
NBT	2	3200	1539	.48*	1401	.44*
NBR	1	1600	496	.31	404	.25
SBL	1	1600	15	.01*	15	.01*
SBT	3	4800	1214	.26	1720	.38
SBR	0	0	46		105	
EBL	1	1600	61	.04	41	.03
EBT	2	3200	519	.17*	556	.18*
EBR	0	0	14		6	
WBL	2	3200	394	.12*	594	.19*
WBT	2	3200	327	.11	523	.17
WBR	0	0	9		20	
TOTAL CAPACITY UTILIZATION				**.78**		**.82**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	77	.05	109	.07*
NBT	2	3200	1859	.58*	1319	.41
NBR	1	1600	627	.39	281	.18
SBL	1	1600	15	.01*	23	.01
SBT	3	4800	1140	.25	2048	.45*
SBR	0	0	46		105	
EBL	1	1600	94	.06	82	.05
EBT	2	3200	658	.21*	515	.16*
EBR	0	0	22		6	
WBL	2	3200	345	.11*	545	.17*
WBT	2	3200	384	.12	564	.18
WBR	0	0	9		20	
TOTAL CAPACITY UTILIZATION				**.91**		**.85**

85. Rice & Wooley

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	39	.02*	88	.06*
NBT	2	3200	1234	.39	1521	.48
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1170	.37*	1671	.52*
SBR	1	1600	253	.16	467	.29
EBL	2	3200	615	.19*	529	.17*
EBT	0	0	0		0	
EBR	1	1600	64	.04	55	.03
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .58 .75

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	39	.02	96	.06*
NBT	2	3200	1897	.59*	1357	.42
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	1334	.42	1933	.60*
SBR	1	1600	311	.19	492	.31
EBL	2	3200	781	.24*	496	.16*
EBT	0	0	0		0	
EBR	1	1600	64	.04	71	.04
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .83 .82

87. SR-1/Rice NB & Pleasant Vly

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	98	.03*	336	.11*
NBT	1	1600	2	.01	5	.02
NBR	0	0	21		29	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	351	.22*	215	.13*
EBT	2	3200	1159	.36	1084	.34
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	806	.29*	1554	.55*
WBR	0	0	119		213	

TOTAL CAPACITY UTILIZATION .54 .79

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	114	.04*	336	.11*
NBT	1	1600	2	.02	5	.02
NBR	0	0	37		29	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	376	.24*	207	.13*
EBT	2	3200	1126	.35	1150	.36
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	822	.30*	1546	.55*
WBR	0	0	127		221	

TOTAL CAPACITY UTILIZATION .58 .79

89. Rice & Hueneme

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	37	.02*	15	.01*
SBT	0	0	0		0	
SBR	f		435		210	
EBL	2	3200	235	.07*	462	.14*
EBT	1	1600	499	.31	664	.42
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	519	.32*	775	.48*
WBR	f		19		75	
TOTAL CAPACITY UTILIZATION				**.41**		**.63**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	37	.02*	15	.01*
SBT	0	0	0		0	
SBR	f		296		276	
EBL	2	3200	284	.09*	405	.13*
EBT	1	1600	466	.29	713	.45
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	617	.39*	750	.47*
WBR	f		19		67	
TOTAL CAPACITY UTILIZATION				**.50**		**.61**

92. Del Norte & Camino Del Sol

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	82	.05*	140	.09
NBT	2	3200	516	.16	860	.27*
NBR	d	1600	10	.01	8	.01
SBL	1	1600	38	.02	51	.03*
SBT	2	3200	571	.18*	539	.17
SBR	1	1600	219	.14	226	.14
EBL	1	1600	149	.09*	384	.24*
EBT	1	1600	12	.01	10	.01
EBR	1	1600	52	.03	27	.02
WBL	0	0	10		16	
WBT	1	1600	9	.02*	15	.03*
WBR	0	0	9		13	
TOTAL CAPACITY UTILIZATION				**.34**		**.57**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	66	.04	173	.11*
NBT	2	3200	778	.24*	384	.12
NBR	d	1600	18	.01	8	.01
SBL	1	1600	30	.02*	43	.03
SBT	2	3200	300	.09	637	.20*
SBR	1	1600	47	.03	218	.14
EBL	1	1600	100	.06*	64	.04*
EBT	1	1600	12	.01	10	.01
EBR	1	1600	52	.03	27	.02
WBL	0	0	10		16	
WBT	1	1600	9	.02*	15	.03*
WBR	0	0	9		13	
TOTAL CAPACITY UTILIZATION				**.34**		**.38**

94. Del Norte & 5th St

Year 2020 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	5		0	
SBL	1	1600	71	.04*	57	.04*
SBT	0	0	0		0	
SBR	1	1600	300	.19	336	.21
EBL	1	1600	245	.15	256	.16*
EBT	1	1600	824	.52*	622	.39
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	290	.21	952	.66*
WBR	0	0	43		96	
Right Turn Adjustment					SBR	.05*
TOTAL CAPACITY UTILIZATION				**.56**		**.91**

Year 2020 W/Phase 3 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	5		0	
SBL	1	1600	55	.03*	221	.14*
SBT	0	0	0		0	
SBR	1	1600	243	.15	451	.28
EBL	1	1600	409	.26*	92	.06*
EBT	1	1600	734	.46	630	.39
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	356	.32*	845	.60*
WBR	0	0	158		112	
Right Turn Adjustment					SBR	.09*
TOTAL CAPACITY UTILIZATION				**.61**		**.89**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰↰		↱		↑↑↑	↱		↑↑	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	487	0	228	0	1131	320	0	1245	306
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	541	0	253	0	1257	356	0	1383	340
RTOR Reduction (vph)	0	0	0	0	0	41	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	541	0	212	0	1257	356	0	1383	340
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				19.5		19.5		62.5	90.0		62.5	90.0
Effective Green, g (s)				20.5		20.5		63.5	90.0		63.5	90.0
Actuated g/C Ratio				0.23		0.23		0.71	1.00		0.71	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				782		361		3588	1583		2497	1583
v/s Ratio Prot				c0.16		0.13		0.25			c0.39	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.69		0.59		0.35	0.22		0.55	0.21
Uniform Delay, d1				31.9		31.0		5.2	0.0		6.4	0.0
Progression Factor				1.00		1.00		0.46	1.00		1.00	1.00
Incremental Delay, d2				2.7		2.4		0.2	0.3		0.9	0.3
Delay (s)				34.5		33.4		2.6	0.3		7.3	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			34.2			2.1			5.9	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	9.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	55.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.85						1.00	0.85		0.96	
Flt Protected	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1504						3539	1583		4890	
Flt Permitted	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1504						3539	1583		4890	
Volume (vph)	153	0	224	0	0	0	0	1270	1000	0	1497	514
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	176	0	257	0	0	0	0	1460	1149	0	1721	591
RTOR Reduction (vph)	0	20	0	0	0	0	0	0	0	0	52	0
Lane Group Flow (vph)	176	237	0	0	0	0	0	1460	1149	0	2260	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	18.7	18.7						63.3	90.0		63.3	
Effective Green, g (s)	19.7	19.7						64.3	90.0		64.3	
Actuated g/C Ratio	0.22	0.22						0.71	1.00		0.71	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	368	329						2528	1583		3494	
v/s Ratio Prot	0.10	0.16						0.41			0.46	
v/s Ratio Perm									c0.73			
v/c Ratio	0.48	0.72						0.58	0.73		0.65	
Uniform Delay, d1	30.7	32.6						6.2	0.0		6.8	
Progression Factor	1.00	1.00						0.96	1.00		0.76	
Incremental Delay, d2	1.0	7.3						0.8	2.5		0.8	
Delay (s)	31.6	39.9						6.8	2.5		6.0	
Level of Service	C	D						A	A		A	
Approach Delay (s)		36.6			0.0			4.9			6.0	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	58.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	877	0	150	0	1270	611	0	1453	343
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	1020	0	174	0	1477	710	0	1690	399
RTOR Reduction (vph)	0	0	0	0	0	19	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1020	0	155	0	1477	710	0	1690	399
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				30.8		30.8		51.2	90.0		51.2	90.0
Effective Green, g (s)				31.8		31.8		52.2	90.0		52.2	90.0
Actuated g/C Ratio				0.35		0.35		0.58	1.00		0.58	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1213		559		2949	1583		2053	1583
v/s Ratio Prot				c0.30		0.10		0.29			c0.48	
v/s Ratio Perm									0.45			0.25
v/c Ratio				0.84		0.28		0.50	0.45		0.82	0.25
Uniform Delay, d1				26.8		20.9		11.2	0.0		15.2	0.0
Progression Factor				1.00		1.00		0.61	1.00		1.00	1.00
Incremental Delay, d2				5.4		0.3		0.5	0.7		3.9	0.4
Delay (s)				32.2		21.1		7.3	0.7		19.1	0.4
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			30.6			5.1			15.5	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	14.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	71.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.89						1.00	0.85		0.97	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1554						3539	1583		4914	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1554						3539	1583		4914	
Volume (vph)	219	0	120	0	0	0	0	1751	976	0	1813	524
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	233	0	128	0	0	0	0	1863	1038	0	1929	557
RTOR Reduction (vph)	0	17	0	0	0	0	0	0	0	0	42	0
Lane Group Flow (vph)	187	157	0	0	0	0	0	1863	1038	0	2444	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	14.7	14.7						67.3	90.0		67.3	
Effective Green, g (s)	15.7	15.7						68.3	90.0		68.3	
Actuated g/C Ratio	0.17	0.17						0.76	1.00		0.76	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	293	271						2686	1583		3729	
v/s Ratio Prot	0.11	0.10						c0.53			0.50	
v/s Ratio Perm									c0.66			
v/c Ratio	0.64	0.58						0.69	0.66		0.66	
Uniform Delay, d1	34.5	34.1						5.5	0.0		5.2	
Progression Factor	1.00	1.00						1.16	1.00		0.78	
Incremental Delay, d2	4.5	3.0						1.4	2.0		0.5	
Delay (s)	39.0	37.1						7.8	2.0		4.6	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.1			0.0			5.8			4.6	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	618	0	236	0	1180	320	0	1384	298
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	687	0	262	0	1311	356	0	1538	331
RTOR Reduction (vph)	0	0	0	0	0	33	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	687	0	229	0	1311	356	0	1538	331
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				23.6		23.6		58.4	90.0		58.4	90.0
Effective Green, g (s)				24.6		24.6		59.4	90.0		59.4	90.0
Actuated g/C Ratio				0.27		0.27		0.66	1.00		0.66	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				938		433		3356	1583		2336	1583
v/s Ratio Prot				c0.20		0.14		0.26			c0.43	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.73		0.53		0.39	0.22		0.66	0.21
Uniform Delay, d1				29.7		27.8		7.0	0.0		9.2	0.0
Progression Factor				1.00		1.00		0.41	1.00		1.00	1.00
Incremental Delay, d2				3.0		1.2		0.3	0.3		1.5	0.3
Delay (s)				32.7		28.9		3.1	0.3		10.7	0.3
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			31.7			2.5			8.8	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	11.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.85						1.00	0.85		0.96	
Flt Protected	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1504						3539	1583		4898	
Flt Permitted	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1504						3539	1583		4898	
Volume (vph)	178	0	183	0	0	0	0	1286	1107	0	1710	555
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	205	0	210	0	0	0	0	1478	1272	0	1966	638
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	0	45	0
Lane Group Flow (vph)	205	199	0	0	0	0	0	1478	1272	0	2559	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	16.5	16.5						65.5	90.0		65.5	
Effective Green, g (s)	17.5	17.5						66.5	90.0		66.5	
Actuated g/C Ratio	0.19	0.19						0.74	1.00		0.74	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	327	292						2615	1583		3619	
v/s Ratio Prot	0.12	0.13						0.42			0.52	
v/s Ratio Perm									c0.80			
v/c Ratio	0.63	0.68						0.57	0.80		0.71	
Uniform Delay, d1	33.3	33.7						5.3	0.0		6.4	
Progression Factor	1.00	1.00						0.95	1.00		0.75	
Incremental Delay, d2	3.7	6.4						0.6	2.9		1.0	
Delay (s)	37.0	40.0						5.6	2.9		5.8	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.5			0.0			4.4			5.8	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	852	0	175	0	1262	685	0	1453	343
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	991	0	203	0	1467	797	0	1690	399
RTOR Reduction (vph)	0	0	0	0	0	20	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	991	0	183	0	1467	797	0	1690	399
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				30.4		30.4		51.6	90.0		51.6	90.0
Effective Green, g (s)				31.4		31.4		52.6	90.0		52.6	90.0
Actuated g/C Ratio				0.35		0.35		0.58	1.00		0.58	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1198		552		2972	1583		2068	1583
v/s Ratio Prot				c0.29		0.12		0.29			c0.48	
v/s Ratio Perm									0.50			0.25
v/c Ratio				0.83		0.33		0.49	0.50		0.82	0.25
Uniform Delay, d1				26.8		21.6		10.9	0.0		14.9	0.0
Progression Factor				1.00		1.00		0.62	1.00		1.00	1.00
Incremental Delay, d2				4.8		0.4		0.4	0.8		3.7	0.4
Delay (s)				31.6		21.9		7.2	0.8		18.6	0.4
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			30.0			4.9			15.1	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	14.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.89						1.00	0.85		0.96	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1551						3539	1583		4901	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1551						3539	1583		4901	
Volume (vph)	211	0	120	0	0	0	0	1817	984	0	1756	557
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	224	0	128	0	0	0	0	1933	1047	0	1868	593
RTOR Reduction (vph)	0	20	0	0	0	0	0	0	0	0	45	0
Lane Group Flow (vph)	182	150	0	0	0	0	0	1933	1047	0	2416	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	14.4	14.4						67.6	90.0		67.6	
Effective Green, g (s)	15.4	15.4						68.6	90.0		68.6	
Actuated g/C Ratio	0.17	0.17						0.76	1.00		0.76	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	288	265						2698	1583		3736	
v/s Ratio Prot	0.11	0.10						c0.55			0.49	
v/s Ratio Perm									c0.66			
v/c Ratio	0.63	0.57						0.72	0.66		0.65	
Uniform Delay, d1	34.7	34.2						5.6	0.0		5.0	
Progression Factor	1.00	1.00						1.16	1.00		0.79	
Incremental Delay, d2	4.5	2.8						1.6	2.1		0.5	
Delay (s)	39.1	37.0						8.1	2.1		4.4	
Level of Service	D	D						A	A		A	
Approach Delay (s)		38.1			0.0			5.9			4.4	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

24. Ventura & Wooley

Year 2020 W/Project Phase 3 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	158	.10	170	.11*
NBT	3	4800	944	.21*	1112	.25
NBR	0	0	75		79	
SBL	2	3200	302	.09*	366	.11
SBT	3	4800	790	.18	1081	.25*
SBR	0	0	56		139	
EBL	1	1600	189	.12	197	.12*
EBT	2	3200	702	.22*	664	.21
EBR	1	1600	122	.08	68	.04
WBL	1	1600	132	.08*	315	.20
WBT	2	3200	425	.13	961	.30*
WBR	1	1600	131	.08	197	.12
TOTAL CAPACITY UTILIZATION				**.60**		**.78**

45. Oxnard & Vineyard

Year 2020 W/Project Phase 3 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	89	.03	288	.09
NBT	3	4800	977	.20*	1377	.29*
NBR	2	3200	760	.24	864	.27
SBL	2	3200	99	.03*	180	.06*
SBT	4	6400	1041	.17	1206	.22
SBR	0	0	77		217	
EBL	1.5		276	.17	283	
EBT	2.5	6400	1177	.25*	650	.15*
EBR	1	1600	164	.10	118	.07
WBL	3	4800	602	.13	830	.17
WBT	2	3200	392	.13*	913	.29*
WBR	0	0	13		25	
TOTAL CAPACITY UTILIZATION				**.61**		**.79**

Note: Assumes E/W Split Phasing

66. Rose & Camino del Sol

Year 2020 W/Project Phase 3 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	150	.09*	114	.07*
NBT	3	4800	1367	.32	1507	.33
NBR	0	0	186		100	
SBL	1	1600	330	.21	134	.08
SBT	2	3200	1419	.44*	1473	.46*
SBR	f		114		182	
EBL	2	3200	210	.07	179	.06*
EBT	2	3200	428	.18*	192	.09
EBR	0	0	159		84	
WBL	2	3200	161	.05*	354	.11
WBT	2	3200	141	.04	671	.21*
WBR	1	1600	128	.08	378	.24
TOTAL CAPACITY UTILIZATION				**.76**		**.80**

68. Rose & 5th

Year 2020 W/Project Phase 3 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	13	.01	52	.03*
NBT	3	4800	1305	.33*	1441	.32
NBR	0	0	294		86	
SBL	1	1600	30	.02*	28	.02
SBT	3	4800	1467	.34	1528	.36*
SBR	0	0	149		217	
EBL	2	3200	234	.07	354	.11*
EBT	2	3200	638	.20*	432	.14
EBR	1	1600	47	.03	70	.04
WBL	2	3200	166	.05*	438	.14
WBT	2	3200	251	.08	732	.27*
WBR	0	0	17		121	
TOTAL CAPACITY UTILIZATION				**.60**		**.77**

85. Rice & Wooley

Year 2020 W/Project Phase 3 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	39	.02	96	.06*
NBT	3	4800	1897	.40*	1357	.28
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	1334	.28	1933	.40*
SBR	1	1600	311	.19	492	.31
EBL	2	3200	781	.24*	496	.16*
EBT	0	0	0		0	
EBR	1	1600	64	.04	71	.04
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	

TOTAL CAPACITY UTILIZATION .64 .62

94. Del Norte & 5th St

Year 2020 W/Project Phase 3 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	5		0	
SBL	1	1600	55	.03*	221	.14*
SBT	0	0	0		0	
SBR	1	1600	243	.15	451	.28
EBL	1	1600	409	.26	92	.06
EBT	1	1600	734	.46*	630	.39*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	356	.16	845	.30
WBR	0	0	158		112	
Right Turn Adjustment					SBR	.07*

TOTAL CAPACITY UTILIZATION .49 .60

121. Rice & Bypass

Year 2020 W/Project Phase 3 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	1384	.29*	852	.18
NBR	1	1600	291	.18	260	.16
SBL	2	3200	5	.00	13	.00
SBT	3	4800	752	.16	1424	.30*
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3200	305	.10*	429	.13*
WBT	0	0	0		0	
WBR	f		38		46	

TOTAL CAPACITY UTILIZATION .39 .43

122. Bypass & Fifth

Year 2020 W/Project Phase 3 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	71	.04*	95	.06*
NBT	0	0	0		0	
NBR	1	1600	220	.14	187	.12
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3200	495	.15*	380	.12*
EBR	1	1600	52	.03	71	.04
WBL	2	3200	291	.09*	405	.13*
WBT	2	3200	268	.08	338	.11
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.03*		

TOTAL CAPACITY UTILIZATION .31 .31

20. Ventura & Gonzales

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	151	.09	259	.16
NBT	2	3200	958	.30*	1067	.33*
NBR	1	1600	376	.24	371	.23
SBL	1	1600	142	.09*	251	.16*
SBT	3	4800	898	.22	1401	.31
SBR	0	0	137		93	
EBL	1	1600	244	.15*	235	.15*
EBT	2	3200	298	.09	452	.14
EBR	1	1600	96	.06	135	.08
WBL	2	3200	255	.08	704	.22
WBT	2	3200	329	.13*	544	.21*
WBR	0	0	76		119	
TOTAL CAPACITY UTILIZATION				**.67**		**.85**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	131	.08	299	.19
NBT	2	3200	1038	.32*	1107	.35*
NBR	1	1600	356	.22	361	.23
SBL	1	1600	152	.10*	261	.16*
SBT	3	4800	968	.23	1391	.31
SBR	0	0	137		93	
EBL	1	1600	244	.15*	255	.16*
EBT	2	3200	348	.11	462	.14
EBR	1	1600	86	.05	135	.08
WBL	2	3200	235	.07	578	.18
WBT	2	3200	329	.13*	544	.22*
WBR	0	0	86		149	
TOTAL CAPACITY UTILIZATION				**.70**		**.89**

24. Ventura & Wooley

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	194	.12	210	.13
NBT	3	4800	893	.20*	1097	.25*
NBR	0	0	68		94	
SBL	2	3200	409	.13*	463	.14*
SBT	3	4800	761	.17	1097	.26
SBR	0	0	57		134	
EBL	1	1600	202	.13	218	.14*
EBT	2	3200	668	.21*	753	.24
EBR	1	1600	133	.08	59	.04
WBL	1	1600	151	.09*	358	.22
WBT	2	3200	463	.14	1021	.32*
WBR	1	1600	134	.08	189	.12
TOTAL CAPACITY UTILIZATION				**.63**		**.85**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	194	.12	210	.13
NBT	3	4800	903	.20*	1107	.25*
NBR	0	0	78		84	
SBL	2	3200	389	.12*	463	.14*
SBT	3	4800	771	.17	1057	.25
SBR	0	0	47		134	
EBL	1	1600	182	.11	218	.14*
EBT	2	3200	738	.23*	763	.24
EBR	1	1600	153	.10	59	.04
WBL	1	1600	151	.09*	358	.22
WBT	2	3200	463	.14	1081	.34*
WBR	1	1600	114	.07	189	.12
TOTAL CAPACITY UTILIZATION				**.64**		**.87**

66. Rose & Camino del Sol

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	160	.10*	192	.12*
NBT	3	4800	1315	.30	1539	.34
NBR	0	0	103		80	
SBL	1	1600	219	.14	109	.07
SBT	2	3200	1653	.52*	1581	.49*
SBR	f		118		184	
EBL	2	3200	197	.06	177	.06*
EBT	2	3200	365	.17*	210	.09
EBR	0	0	192		91	
WBL	2	3200	165	.05*	327	.10
WBT	2	3200	126	.04	482	.15*
WBR	1	1600	121	.08	309	.19

TOTAL CAPACITY UTILIZATION .84 .82

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	160	.10*	132	.08*
NBT	3	4800	1435	.33	1599	.35
NBR	0	0	163		80	
SBL	1	1600	369	.23	129	.08
SBT	2	3200	1533	.48*	1571	.49*
SBR	f		128		154	
EBL	2	3200	217	.07	197	.06*
EBT	2	3200	485	.21*	200	.09
EBR	0	0	172		81	
WBL	2	3200	165	.05*	387	.12
WBT	2	3200	136	.04	722	.23*
WBR	1	1600	141	.09	419	.26

TOTAL CAPACITY UTILIZATION .84 .86

68. Rose & 5th

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	12	.01*	66	.04*
NBT	3	4800	1279	.32	1582	.35
NBR	0	0	238		112	
SBL	1	1600	25	.02	15	.01
SBT	3	4800	1677	.39*	1662	.39*
SBR	0	0	173		210	
EBL	2	3200	199	.06	269	.08*
EBT	2	3200	617	.19*	551	.17
EBR	1	1600	53	.03	94	.06
WBL	2	3200	169	.05*	358	.11
WBT	2	3200	237	.08	685	.26*
WBR	0	0	14		131	

TOTAL CAPACITY UTILIZATION .64 .77

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	12	.01	66	.04*
NBT	3	4800	1349	.36*	1542	.34
NBR	0	0	358		102	
SBL	1	1600	25	.02*	25	.02
SBT	3	4800	1607	.37	1642	.39*
SBR	0	0	153		220	
EBL	2	3200	229	.07	349	.11*
EBT	2	3200	707	.22*	491	.15
EBR	1	1600	53	.03	84	.05
WBL	2	3200	179	.06*	508	.16
WBT	2	3200	247	.08	785	.29*
WBR	0	0	14		141	

TOTAL CAPACITY UTILIZATION .66 .83

69. Rose & Wooley

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	54	.03*	77	.05*
NBT	2	3200	1201	.38	1196	.37
NBR	1	1600	101	.06	64	.04
SBL	1	1600	28	.02	25	.02
SBT	2	3200	1478	.46*	1598	.50*
SBR	f		390		434	
EBL	2	3200	339	.11	446	.14*
EBT	2	3200	476	.17*	310	.12
EBR	0	0	54		67	
WBL	1	1600	76	.05*	149	.09
WBT	2	3200	140	.05	528	.17*
WBR	0	0	12		29	
TOTAL CAPACITY UTILIZATION				**.71**		**.86**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	44	.03*	77	.05*
NBT	2	3200	1291	.40	1196	.37
NBR	1	1600	101	.06	64	.04
SBL	1	1600	38	.02	35	.02
SBT	2	3200	1438	.45*	1638	.51*
SBR	f		360		484	
EBL	2	3200	429	.13	426	.13*
EBT	2	3200	426	.15*	290	.11
EBR	0	0	44		67	
WBL	1	1600	136	.09*	189	.12
WBT	2	3200	120	.04	538	.18*
WBR	0	0	12		29	
TOTAL CAPACITY UTILIZATION				**.72**		**.87**

71. Rose & Oxnard

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	189	.12*	335	.21*
NBT	2	3200	1124	.35	1143	.36
NBR	1	1600	15	.01	5	.00
SBL	2	3200	62	.02	67	.02
SBT	2	3200	1131	.35*	1275	.40*
SBR	f		37		57	
EBL	0	0	0		0	
EBT	2	3200	248	.08*	154	.05
EBR	f		193		120	
WBL	0	0	0		0	
WBT	2	3200	127	.04	499	.16*
WBR	f		56		89	
TOTAL CAPACITY UTILIZATION				**.55**		**.77**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	179	.11*	335	.21*
NBT	2	3200	1174	.37	1133	.35
NBR	1	1600	15	.01	5	.00
SBL	2	3200	92	.03	97	.03
SBT	2	3200	1081	.34*	1305	.41*
SBR	f		37		57	
EBL	0	0	0		0	
EBT	2	3200	258	.08*	164	.05
EBR	f		193		120	
WBL	0	0	0		0	
WBT	2	3200	157	.05	519	.16*
WBR	f		76		99	
TOTAL CAPACITY UTILIZATION				**.53**		**.78**

72. Rose & Channel Islands

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	258	.08*	399	.12
NBT	2	3200	978	.31	1098	.34*
NBR	1	1600	230	.14	148	.09
SBL	1	1600	79	.05	153	.10*
SBT	3	4800	1346	.32*	1054	.28
SBR	0	0	178		300	
EBL	2	3200	425	.13	298	.09*
EBT	2	3200	542	.17*	436	.14
EBR	1	1600	236	.15	212	.13
WBL	2	3200	289	.09*	364	.11
WBT	2	3200	403	.13	776	.24*
WBR	1	1600	9	.01	10	.01
TOTAL CAPACITY UTILIZATION				**.66**		**.77**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	248	.08*	389	.12
NBT	2	3200	1028	.32	1098	.34*
NBR	1	1600	270	.17	158	.10
SBL	1	1600	79	.05	153	.10*
SBT	3	4800	1306	.31*	1104	.29
SBR	0	0	158		280	
EBL	2	3200	425	.13	288	.09*
EBT	2	3200	562	.18*	476	.15
EBR	1	1600	236	.15	202	.13
WBL	2	3200	309	.10*	384	.12
WBT	2	3200	443	.14	876	.27*
WBR	1	1600	9	.01	10	.01
TOTAL CAPACITY UTILIZATION				**.67**		**.80**

73. Rose & Bard

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	53	.03*	88	.06
NBT	2	3200	1196	.37	1310	.41*
NBR	1	1600	12	.01	27	.02
SBL	1	1600	145	.09	124	.08*
SBT	2	3200	1480	.46*	956	.30
SBR	1	1600	158	.10	416	.26
EBL	1	1600	247	.15*	170	.11*
EBT	2	3200	182	.07	218	.10
EBR	0	0	53		87	
WBL	1	1600	25	.02	19	.01
WBT	2	3200	135	.08*	388	.17*
WBR	0	0	171	.11	171	
TOTAL CAPACITY UTILIZATION				**.72**		**.77**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	63	.04*	108	.07
NBT	2	3200	1246	.39	1270	.40*
NBR	1	1600	12	.01	27	.02
SBL	1	1600	155	.10	134	.08*
SBT	2	3200	1480	.46*	986	.31
SBR	1	1600	138	.09	436	.27
EBL	1	1600	257	.16*	200	.13*
EBT	2	3200	182	.08	228	.10
EBR	0	0	63		87	
WBL	1	1600	35	.02	19	.01
WBT	2	3200	165	.10*	398	.18*
WBR	0	0	181	.11	181	
TOTAL CAPACITY UTILIZATION				**.76**		**.79**

74. Rose & Pleasant Valley

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	81	.05*	154	.10
NBT	2	3200	787	.25	1072	.34*
NBR	1	1600	134	.08	297	.19
SBL	1	1600	218	.14	126	.08*
SBT	2	3200	1107	.35*	686	.21
SBR	1	1600	330	.21	321	.20
EBL	1	1600	299	.19	246	.15*
EBT	2	3200	727	.23*	614	.19
EBR	1	1600	114	.07	105	.07
WBL	1	1600	313	.20*	221	.14
WBT	2	3200	669	.21	862	.27*
WBR	1	1600	133	.08	76	.05

TOTAL CAPACITY UTILIZATION .83 .84

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	81	.05*	184	.12
NBT	2	3200	691	.22	1102	.34*
NBR	1	1600	134	.08	277	.17
SBL	1	1600	218	.14	136	.09*
SBT	2	3200	1107	.35*	796	.25
SBR	1	1600	190	.12	321	.20
EBL	1	1600	369	.23	246	.15*
EBT	2	3200	707	.22*	434	.14
EBR	1	1600	134	.08	65	.04
WBL	1	1600	293	.18*	181	.11
WBT	2	3200	469	.15	822	.26*
WBR	1	1600	198	.12	156	.10

TOTAL CAPACITY UTILIZATION .80 .84

78. Bard & Pleasant Valley

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	8		8	
NBT	1	1600	8	.02*	8	.02*
NBR	0	0	18		11	
SBL	1.5		209		272	
SBT	0.5	3200	8	.07*	10	.09*
SBR	1	1600	34	.02	28	.02
EBL	1	1600	19	.01*	48	.03*
EBT	2	3200	898	.28	1093	.34
EBR	0	0	9		8	
WBL	1	1600	27	.02	17	.01
WBT	2	3200	981	.42*	986	.44*
WBR	0	0	360		409	

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .52 .58

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	8		8	
NBT	1	1600	8	.02*	8	.02*
NBR	0	0	18		11	
SBL	1.5		209		292	
SBT	0.5	3200	8	.07*	10	.09*
SBR	1	1600	44	.03	38	.02
EBL	1	1600	19	.01*	48	.03*
EBT	2	3200	898	.28	1103	.35
EBR	0	0	9		8	
WBL	1	1600	27	.02	17	.01
WBT	2	3200	981	.43*	956	.44*
WBR	0	0	410		439	

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .53 .58

82. Rice & Camino Del Sol

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	108	.07*	95	.06
NBT	3	4800	1310	.27	1877	.39*
NBR	1	1600	28	.02	55	.03
SBL	1	1600	171	.11	385	.24*
SBT	3	4800	1523	.32*	1755	.37
SBR	d	1600	546	.34	292	.18
EBL	1	1600	297	.19*	411	.26*
EBT	2	3200	240	.08	542	.17
EBR	1	1600	32	.02	52	.03
WBL	1	1600	18	.01	27	.02
WBT	2	3200	183	.06*	190	.06*
WBR	1	1600	213	.13	82	.05
TOTAL CAPACITY UTILIZATION				**.64**		**.95**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	58	.04	75	.05
NBT	3	4800	2080	.43*	1747	.36*
NBR	1	1600	28	.02	45	.03
SBL	1	1600	181	.11*	265	.17*
SBT	3	4800	1383	.29	2255	.47
SBR	d	1600	436	.27	352	.22
EBL	1	1600	447	.28*	341	.21*
EBT	2	3200	230	.07	232	.07
EBR	1	1600	22	.01	62	.04
WBL	1	1600	18	.01	27	.02
WBT	2	3200	23	.01*	160	.05*
WBR	1	1600	173	.11	72	.05
Right Turn Adjustment			WBR	.02*		
TOTAL CAPACITY UTILIZATION				**.85**		**.79**

87. SR-1/Rice NB & Pleasant Vly

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	99	.03*	308	.10*
NBT	1	1600	1	.01	2	.02
NBR	0	0	20		34	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	356	.22*	217	.14*
EBT	2	3200	1235	.39	1277	.40
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	903	.32*	1647	.59*
WBR	0	0	134		227	
TOTAL CAPACITY UTILIZATION				**.57**		**.83**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	119	.04*	308	.10*
NBT	1	1600	1	.03	2	.02
NBR	0	0	40		34	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	386	.24*	207	.13*
EBT	2	3200	1195	.37	1357	.42
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	923	.33*	1637	.59*
WBR	0	0	144		237	
TOTAL CAPACITY UTILIZATION				**.61**		**.82**

89. Rice & Hueneme

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	33	.02*	12	.01*
SBT	0	0	0		0	
SBR	f		572		240	
EBL	2	3200	287	.09*	596	.19*
EBT	1	1600	525	.33	757	.47
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	590	.37*	807	.50*
WBR	f		14		63	
TOTAL CAPACITY UTILIZATION				**.48**		**.70**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1600	33	.02*	12	.01*
SBT	0	0	0		0	
SBR	f		402		320	
EBL	2	3200	347	.11*	526	.16*
EBT	1	1600	485	.30	817	.51
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1600	710	.44*	777	.49*
WBR	f		14		53	
TOTAL CAPACITY UTILIZATION				**.57**		**.66**

92. Del Norte & Camino Del Sol

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	96	.06*	125	.08
NBT	2	3200	598	.19	1015	.32*
NBR	d	1600	10	.01	9	.01
SBL	1	1600	34	.02	55	.03*
SBT	2	3200	635	.20*	629	.20
SBR	1	1600	244	.15	243	.15
EBL	1	1600	145	.09*	442	.28*
EBT	1	1600	11	.01	10	.01
EBR	1	1600	31	.02	18	.01
WBL	0	0	10		13	
WBT	1	1600	9	.02*	13	.02*
WBR	0	0	10		12	
TOTAL CAPACITY UTILIZATION				**.37**		**.65**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	76	.05	165	.10*
NBT	2	3200	918	.29*	435	.14
NBR	d	1600	20	.01	9	.01
SBL	1	1600	24	.02*	45	.03
SBT	2	3200	305	.10	749	.23*
SBR	1	1600	34	.02	233	.15
EBL	1	1600	85	.05*	52	.03*
EBT	1	1600	11	.01	10	.01
EBR	1	1600	31	.02	18	.01
WBL	0	0	10		13	
WBT	1	1600	9	.02*	13	.02*
WBR	0	0	10		12	
TOTAL CAPACITY UTILIZATION				**.38**		**.38**

94. Del Norte & 5th St

Year 2025 (No Project)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	8		0	
SBL	1	1600	70	.04*	59	.04*
SBT	0	0	0		0	
SBR	1	1600	355	.22	403	.25
EBL	1	1600	263	.16	318	.20*
EBT	1	1600	897	.56*	726	.45
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	315	.11	1056	.36*
WBR	0	0	47		103	
Right Turn Adjustment					SBR	.06*
TOTAL CAPACITY UTILIZATION				**.60**		**.66**

Year 2025 W/Phase 4 Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	8		0	
SBL	1	1600	50	.03*	259	.16*
SBT	0	0	0		0	
SBR	1	1600	285	.18	543	.34
EBL	1	1600	463	.29	118	.07
EBT	1	1600	787	.49*	736	.46*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	395	.18	926	.33
WBR	0	0	187		123	
Right Turn Adjustment					SBR	.08*
TOTAL CAPACITY UTILIZATION				**.52**		**.70**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	498	0	235	0	1133	320	0	1279	306
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	553	0	261	0	1259	356	0	1421	340
RTOR Reduction (vph)	0	0	0	0	0	40	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	553	0	221	0	1259	356	0	1421	340
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				19.8		19.8		62.2	90.0		62.2	90.0
Effective Green, g (s)				20.8		20.8		63.2	90.0		63.2	90.0
Actuated g/C Ratio				0.23		0.23		0.70	1.00		0.70	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				793		366		3571	1583		2485	1583
v/s Ratio Prot				c0.16		0.14		0.25			c0.40	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.70		0.60		0.35	0.22		0.57	0.21
Uniform Delay, d1				31.7		30.9		5.3	0.0		6.7	0.0
Progression Factor				1.00		1.00		0.50	1.00		1.00	1.00
Incremental Delay, d2				2.7		2.8		0.2	0.3		1.0	0.3
Delay (s)				34.4		33.7		2.9	0.3		7.6	0.3
Level of Service				C		C		A	A		A	A
Approach Delay (s)		0.0			34.2			2.3			6.2	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	10.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.85						1.00	0.85		0.96	
Flt Protected	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1504						3539	1583		4883	
Flt Permitted	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1504						3539	1583		4883	
Volume (vph)	111	0	247	0	0	0	0	1305	1060	0	1593	577
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	128	0	284	0	0	0	0	1500	1218	0	1831	663
RTOR Reduction (vph)	0	15	0	0	0	0	0	0	0	0	58	0
Lane Group Flow (vph)	128	269	0	0	0	0	0	1500	1218	0	2436	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	20.0	20.0						62.0	90.0		62.0	
Effective Green, g (s)	21.0	21.0						63.0	90.0		63.0	
Actuated g/C Ratio	0.23	0.23						0.70	1.00		0.70	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	392	351						2477	1583		3418	
v/s Ratio Prot	0.08	0.18						0.42			0.50	
v/s Ratio Perm									c0.77			
v/c Ratio	0.33	0.77						0.61	0.77		0.71	
Uniform Delay, d1	28.6	32.2						7.0	0.0		8.1	
Progression Factor	1.00	1.00						0.99	1.00		0.78	
Incremental Delay, d2	0.5	9.6						1.0	3.3		1.2	
Delay (s)	29.1	41.8						8.0	3.3		7.5	
Level of Service	C	D						A	A		A	
Approach Delay (s)		37.8			0.0			5.9			7.5	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	61.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	949	0	145	0	1300	761	0	1541	371
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	1103	0	169	0	1512	885	0	1792	431
RTOR Reduction (vph)	0	0	0	0	0	17	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1103	0	152	0	1512	885	0	1792	431
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				32.0		32.0		50.0	90.0		50.0	90.0
Effective Green, g (s)				33.0		33.0		51.0	90.0		51.0	90.0
Actuated g/C Ratio				0.37		0.37		0.57	1.00		0.57	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1259		580		2882	1583		2005	1583
v/s Ratio Prot				c0.32		0.10		0.30			c0.51	
v/s Ratio Perm									0.56			0.27
v/c Ratio				0.88		0.26		0.52	0.56		0.89	0.27
Uniform Delay, d1				26.6		20.0		12.0	0.0		17.1	0.0
Progression Factor				1.00		1.00		0.66	1.00		1.00	1.00
Incremental Delay, d2				7.1		0.2		0.5	1.0		6.6	0.4
Delay (s)				33.7		20.2		8.4	1.0		23.8	0.4
Level of Service				C		C		A	A		C	A
Approach Delay (s)		0.0			31.9			5.6			19.2	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	16.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.89						1.00	0.85		0.96	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1548						3539	1583		4880	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1548						3539	1583		4880	
Volume (vph)	189	0	110	0	0	0	0	1961	1093	0	1802	662
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	201	0	117	0	0	0	0	2086	1163	0	1917	704
RTOR Reduction (vph)	0	18	0	0	0	0	0	0	0	0	51	0
Lane Group Flow (vph)	165	135	0	0	0	0	0	2086	1163	0	2570	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	13.6	13.6						68.4	90.0		68.4	
Effective Green, g (s)	14.6	14.6						69.4	90.0		69.4	
Actuated g/C Ratio	0.16	0.16						0.77	1.00		0.77	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	273	251						2729	1583		3763	
v/s Ratio Prot	0.10	0.09						0.59			0.53	
v/s Ratio Perm									c0.73			
v/c Ratio	0.60	0.54						0.76	0.73		0.68	
Uniform Delay, d1	35.0	34.6						5.7	0.0		5.0	
Progression Factor	1.00	1.00						1.17	1.00		0.82	
Incremental Delay, d2	3.7	2.2						2.0	2.9		0.4	
Delay (s)	38.8	36.8						8.7	2.9		4.5	
Level of Service	D	D						A	A		A	
Approach Delay (s)		37.8			0.0			6.7			4.5	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	69.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	658	0	245	0	1193	320	0	1449	296
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	731	0	272	0	1326	356	0	1610	329
RTOR Reduction (vph)	0	0	0	0	0	31	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	731	0	241	0	1326	356	0	1610	329
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				25.3		25.3		56.7	90.0		56.7	90.0
Effective Green, g (s)				26.3		26.3		57.7	90.0		57.7	90.0
Actuated g/C Ratio				0.29		0.29		0.64	1.00		0.64	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1003		463		3260	1583		2269	1583
v/s Ratio Prot				c0.21		0.15		0.26			c0.45	
v/s Ratio Perm									0.22			0.21
v/c Ratio				0.73		0.52		0.41	0.22		0.71	0.21
Uniform Delay, d1				28.6		26.6		7.8	0.0		10.6	0.0
Progression Factor				1.00		1.00		0.43	1.00		1.00	1.00
Incremental Delay, d2				2.7		1.1		0.3	0.3		1.9	0.3
Delay (s)				31.3		27.6		3.6	0.3		12.5	0.3
Level of Service				C		C		A	A		B	A
Approach Delay (s)		0.0			30.3			2.9			10.5	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	12.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.85						1.00	0.85		0.96	
Flt Protected	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1504						3539	1583		4892	
Flt Permitted	0.95	1.00						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1504						3539	1583		4892	
Volume (vph)	141	0	197	0	0	0	0	1325	1190	0	1853	627
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	162	0	226	0	0	0	0	1523	1368	0	2130	721
RTOR Reduction (vph)	0	8	0	0	0	0	0	0	0	0	49	0
Lane Group Flow (vph)	162	218	0	0	0	0	0	1523	1368	0	2802	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	17.7	17.7						64.3	90.0		64.3	
Effective Green, g (s)	18.7	18.7						65.3	90.0		65.3	
Actuated g/C Ratio	0.21	0.21						0.73	1.00		0.73	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	349	312						2568	1583		3549	
v/s Ratio Prot	0.10	0.14						0.43			0.57	
v/s Ratio Perm									c0.86			
v/c Ratio	0.46	0.70						0.59	0.86		0.79	
Uniform Delay, d1	31.3	33.0						5.9	0.0		7.9	
Progression Factor	1.00	1.00						1.00	1.00		0.81	
Incremental Delay, d2	1.0	6.7						0.8	5.0		1.5	
Delay (s)	32.2	39.7						6.7	5.0		7.9	
Level of Service	C	D						A	A		A	
Approach Delay (s)		36.6			0.0			5.9			7.9	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM Average Control Delay	8.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0		3.0		3.0	3.0		3.0	3.0
Lane Util. Factor				0.97		1.00		0.91	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				3433		1583		5085	1583		3539	1583
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				3433		1583		5085	1583		3539	1583
Volume (vph)	0	0	0	919	0	175	0	1290	851	0	1541	371
Peak-hour factor, PHF	0.90	0.90	0.90	0.86	0.90	0.86	0.90	0.86	0.86	0.90	0.86	0.86
Adj. Flow (vph)	0	0	0	1069	0	203	0	1500	990	0	1792	431
RTOR Reduction (vph)	0	0	0	0	0	18	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1069	0	185	0	1500	990	0	1792	431
Turn Type				Prot		custom			Free			Free
Protected Phases				3		3		2			6	
Permitted Phases						3			Free			Free
Actuated Green, G (s)				31.6		31.6		50.4	90.0		50.4	90.0
Effective Green, g (s)				32.6		32.6		51.4	90.0		51.4	90.0
Actuated g/C Ratio				0.36		0.36		0.57	1.00		0.57	1.00
Clearance Time (s)				4.0		4.0		4.0			4.0	
Vehicle Extension (s)				3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)				1244		573		2904	1583		2021	1583
v/s Ratio Prot				c0.31		0.12		0.29			c0.51	
v/s Ratio Perm									0.63			0.27
v/c Ratio				0.86		0.32		0.52	0.63		0.89	0.27
Uniform Delay, d1				26.6		20.7		11.7	0.0		16.8	0.0
Progression Factor				1.00		1.00		0.68	1.00		1.00	1.00
Incremental Delay, d2				6.1		0.3		0.4	1.2		6.2	0.4
Delay (s)				32.7		21.1		8.4	1.2		23.0	0.4
Level of Service				C		C		A	A		C	A
Approach Delay (s)		0.0			30.8			5.5			18.6	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	15.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0						3.0	3.0		3.0	
Lane Util. Factor	0.95	0.95						0.95	1.00		0.91	
Frt	1.00	0.88						1.00	0.85		0.96	
Flt Protected	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (prot)	1681	1545						3539	1583		4865	
Flt Permitted	0.95	0.99						1.00	1.00		1.00	
Satd. Flow (perm)	1681	1545						3539	1583		4865	
Volume (vph)	179	0	110	0	0	0	0	2041	1103	0	1732	702
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.94	0.94	0.87	0.94	0.94
Adj. Flow (vph)	190	0	117	0	0	0	0	2171	1173	0	1843	747
RTOR Reduction (vph)	0	22	0	0	0	0	0	0	0	0	55	0
Lane Group Flow (vph)	158	127	0	0	0	0	0	2171	1173	0	2535	0
Turn Type	Split								Free			
Protected Phases	4	4						2			6	
Permitted Phases									Free			
Actuated Green, G (s)	13.3	13.3						68.7	90.0		68.7	
Effective Green, g (s)	14.3	14.3						69.7	90.0		69.7	
Actuated g/C Ratio	0.16	0.16						0.77	1.00		0.77	
Clearance Time (s)	4.0	4.0						4.0			4.0	
Vehicle Extension (s)	3.0	3.0						3.0			3.0	
Lane Grp Cap (vph)	267	245						2741	1583		3768	
v/s Ratio Prot	0.09	0.08						c0.61			0.52	
v/s Ratio Perm									c0.74			
v/c Ratio	0.59	0.52						0.79	0.74		0.67	
Uniform Delay, d1	35.1	34.7						5.9	0.0		4.8	
Progression Factor	1.00	1.00						1.16	1.00		0.82	
Incremental Delay, d2	3.5	1.9						2.3	3.0		0.4	
Delay (s)	38.6	36.6						9.2	3.0		4.4	
Level of Service	D	D						A	A		A	
Approach Delay (s)		37.6			0.0			7.0			4.4	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

20. Ventura & Gonzales

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	131	.04	299	.09*
NBT	3	4800	1038	.22*	1107	.23
NBR	1	1600	356	.22	361	.23
SBL	1	1600	152	.10*	261	.16
SBT	3	4800	968	.23	1391	.31*
SBR	0	0	137		93	
EBL	1	1600	244	.15*	255	.16*
EBT	2	3200	348	.11	462	.14
EBR	1	1600	86	.05	135	.08
WBL	2	3200	235	.07	578	.18
WBT	2	3200	329	.13*	544	.22*
WBR	0	0	86		149	

TOTAL CAPACITY UTILIZATION .60 .78

24. Ventura & Wooley

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	194	.12	210	.13
NBT	3	4800	903	.20*	1107	.25*
NBR	0	0	78		84	
SBL	2	3200	389	.12*	463	.14*
SBT	3	4800	771	.17	1057	.25
SBR	0	0	47		134	
EBL	1	1600	182	.11	218	.14*
EBT	3	4800	738	.19*	763	.17
EBR	0	0	153		59	
WBL	1	1600	151	.09*	358	.22
WBT	3	4800	463	.12	1081	.26*
WBR	0	0	114		189	

TOTAL CAPACITY UTILIZATION .60 .79

66. Rose & Camino del Sol

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	160	.10	132	.08*
NBT	3	4800	1435	.33*	1599	.35
NBR	0	0	163		80	
SBL	1	1600	369	.23*	129	.08
SBT	3	4800	1533	.35	1571	.36*
SBR	0	0	128		154	
EBL	2	3200	217	.07	197	.06*
EBT	2	3200	485	.15*	200	.06
EBR	1	1600	172	.11	81	.05
WBL	2	3200	165	.05*	387	.12
WBT	2	3200	136	.04	722	.23*
WBR	1	1600	141	.09	419	.26

TOTAL CAPACITY UTILIZATION .76 .73

68. Rose & 5th

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	12	.01	66	.04*
NBT	3	4800	1349	.36*	1542	.34
NBR	0	0	358		102	
SBL	1	1600	25	.02*	25	.02
SBT	3	4800	1607	.33	1642	.34*
SBR	1	1600	153	.10	220	.14
EBL	2	3200	229	.07	349	.11*
EBT	2	3200	707	.22*	491	.15
EBR	1	1600	53	.03	84	.05
WBL	2	3200	179	.06*	508	.16
WBT	2	3200	247	.08	785	.29*
WBR	0	0	14		141	

TOTAL CAPACITY UTILIZATION .66 .78

69. Rose & Wooley

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	44	.03	77	.05*
NBT	2	3200	1291	.40*	1196	.37
NBR	1	1600	101	.06	64	.04
SBL	1	1600	38	.02*	35	.02
SBT	3	4800	1438	.30	1638	.34*
SBR	f		360		484	
EBL	2	3200	429	.13	426	.13*
EBT	2	3200	426	.15*	290	.11
EBR	0	0	44		67	
WBL	1	1600	136	.09*	189	.12
WBT	2	3200	120	.04	538	.18*
WBR	0	0	12		29	

TOTAL CAPACITY UTILIZATION .66 .70

72. Rose & Channel Islands

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	248	.08*	389	.12*
NBT	3	4800	1028	.21	1098	.23
NBR	1	1600	270	.17	158	.10
SBL	1	1600	79	.05	153	.10
SBT	3	4800	1306	.31*	1104	.29*
SBR	0	0	158		280	
EBL	2	3200	425	.13	288	.09*
EBT	2	3200	562	.18*	476	.15
EBR	1	1600	236	.15	202	.13
WBL	2	3200	309	.10*	384	.12
WBT	2	3200	443	.14	876	.27*
WBR	1	1600	9	.01	10	.01

TOTAL CAPACITY UTILIZATION .67 .77

73. Rose & Bard

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	63	.04*	108	.07*
NBT	3	4800	1246	.26	1270	.27
NBR	0	0	12		27	
SBL	1	1600	155	.10	134	.08
SBT	3	4800	1480	.34*	986	.30*
SBR	0	0	138		436	
EBL	1	1600	257	.16*	200	.13*
EBT	2	3200	182	.08	228	.10
EBR	0	0	63		87	
WBL	1	1600	35	.02	19	.01
WBT	2	3200	165	.10*	398	.18*
WBR	0	0	181	.11	181	

TOTAL CAPACITY UTILIZATION .64 .68

74. Rose & Pleasant Valley

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	81	.05*	184	.12
NBT	3	4800	691	.17	1102	.29*
NBR	0	0	134		277	
SBL	1	1600	218	.14	136	.09*
SBT	3	4800	1107	.27*	796	.23
SBR	0	0	190		321	
EBL	1	1600	369	.23	246	.15*
EBT	2	3200	707	.22*	434	.14
EBR	1	1600	134	.08	65	.04
WBL	1	1600	293	.18*	181	.11
WBT	2	3200	469	.15	822	.26*
WBR	1	1600	198	.12	156	.10

TOTAL CAPACITY UTILIZATION .72 .79

82. Rice & Camino Del Sol

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	58	.04	75	.05
NBT	3	4800	2080	.43*	1747	.36*
NBR	1	1600	28	.02	45	.03
SBL	1	1600	181	.11*	265	.17*
SBT	3	4800	1383	.29	2255	.47
SBR	d	1600	436	.27	352	.22
EBL	2	3200	447	.14*	341	.11*
EBT	2	3200	230	.07	232	.07
EBR	1	1600	22	.01	62	.04
WBL	1	1600	18	.01	27	.02
WBT	2	3200	23	.01*	160	.05*
WBR	1	1600	173	.11	72	.05
Right Turn Adjustment			WBR	.02*		
TOTAL CAPACITY UTILIZATION				**.71**		**.69**

87. SR-1/Rice NB & Pleasant Vly

Year 2025 W/Project Phase 4 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	119	.04*	308	.10*
NBT	1	1600	1	.03	2	.02
NBR	0	0	40		34	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	1	1600	386	.24*	207	.13*
EBT	2	3200	1195	.37	1357	.42
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	923	.29*	1637	.51*
WBR	1	1600	144	.09	237	.15
TOTAL CAPACITY UTILIZATION				**.57**		**.74**

81. Rice & Gonzales

OTM 2030 (Mitigation)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3200	340	.11*	330	.10
NBT	4.5	9600	1400	{.19}	2670	.33*
NBR	1.5		520		140	
SBL	2	3200	800	.25	350	.11*
SBT	4	6400	2500	.39*	1660	.26
SBR	f		920		520	
EBL	2	3200	190	.06	270	.08*
EBT	4	6400	1490	.23*	1140	.18
EBR	1	1600	220	.14	320	.20
WBL	3	4800	250	.05*	650	.14
WBT	3	4800	620	.13	1310	.27*
WBR	1	1600	160	.10	420	.26
TOTAL CAPACITY UTILIZATION				**.78**		**.79**

Meeting Date: 6/26/07

ACTION	TYPE OF ITEM
☐ Approved Recommendation	☐ Info/Consent
☐ Ord. No(s). ______	☐ Report
☐ Res. No(s). ______	■ Public Hearing
☐ Other ______	☐ Other ______

Prepared By: Jason M. Samonte Agenda Item No. L-5

Reviewed By: City Manager City Attorney Public Works Director Finance Director SW

DATE: June 19, 2007

TO: City Council

FROM: Jason M. Samonte, Traffic Engineer
Public Works Department

SUBJECT: Adjustment to Planned Traffic Circulation Facilities Fees

RECOMMENDATION

That City Council adopt a resolution establishing interim planned traffic circulation facilities fees of $730 per vehicle trip to be effective until the 2020 General Plan update is complete and City Council considers a fee based on a new master plan of traffic circulation facilities.

DISCUSSION

Planned traffic circulation facilities fees (traffic fees) are paid by developers in proportion to the trips generated to fund the construction of the City's traffic circulation system. The traffic fees allow the cost of the transportation system to be spread fairly to all new development. Monies are collected and applied to large street improvement projects. Developments that front on major highways widen the street and get a credit against their traffic fees.

Previous Ventura County ballot measures to increase the funds for transportation through taxation have failed. Because of the tremendous backlog of street maintenance, the existing gas tax monies available to the City are fully committed to maintenance and not available for widening roads.

The traffic fees have not changed since January 1994 at which time the City Council lowered them to stimulate the local economy that was in a recession.

The methodology to arrive at the interim fee is as follows:

The attached 1992 Public Works Department report was the last comprehensive calculation of the fee necessary to complete the planned traffic circulation system. The total cost of improvements to the City of Oxnard was found to be $348,533,000 ("Net Cost of Improvements" in Attachment 1). The number of additional daily trips at build out as projected in 1992 was 672,821 trips. The cost per trip of $518.01 was computed by dividing the cost of improvements by the number of trips.

The interim fee is a function of adjusting the "Net Cost of Improvements" for inflation since the 1992 study and using more recent data when available. Five interchange projects have either been completed or have new engineering estimates since the 1992 report: (a) Rice Avenue/101Freeway interchange, (b) Rose Avenue/101 Freeway interchange, (c) Del Norte Boulevard/101Freeway interchange, (d) Route 1/Rice Avenue Interchange/Rice Extension and (e) 101 Freeway—Vineyard Avenue to Johnson Drive. The new information was utilized in computing the fee adjustment.

The Rose Avenue interchange was completed at total cost of $21,300,000. The current cost estimate for the Rice Avenue interchange is $76,800,000 and the estimate for Del Norte Boulevard interchange is $39,000,000. The City's contribution to 101 freeway— Vineyard Avenue to Johnson Drive increased to $18,00,000. These new estimates are used in "Net Cost of Improvements" for the interim fee. The City contribution to the Route 1/Rice Interchange/Rice Extension remains unchanged.

An inflation factor of 31% (change in Construction Cost Index as published by Engineering News Record) was applied to the remaining items in the 1992 computation after subtracting the cost estimates for these five interchange projects. The assumed general fund contribution of $5,700,000 and "Federal Aid to Urban Roads" (FAU) contribution of $13,290,000 were backed out of the fee computation because those funds are committed to other uses. Attachment 2 summarizes the interim fee computation.

The new "Net Cost of Improvements" is $556,500,000. Spreading this cost to the 672,821 trips yields a fee of $827 per daily trip. To ensure a conservative methodology, the computed value was reduced by approximately 10% and rounded down to arrive at the proposed interim traffic fee of $730.

The proposed adjustment is temporary until a new engineering study can be completed after the adoption of an updated 2020 General Plan. Staff anticipates that the list of needed transportation improvements and the costs of construction will change from what was determined in 1992.

FINANCIAL IMPACT

Currently the FY '08 budget anticipates approximately $2,000,000 of Traffic Impact Fees will be collected at the current rate of $173.90 per vehicle trip. The fee increase will result in another $6,396,000 being collected. Failure to adjust the traffic impact fee will result in an increased call on general funds to complete the transportation system.

Attachments

1. Traffic Impact Fee Methodology-1992
2. Interim Fee Calculation
3. Resolution

JMS/JAG

TRAFFIC IMPACT FEE METHODOLOGY

Development Unit

Development is converted to a common unit which can most equitably measure the impact of a given project on the requirement for infrastructure. These units for the traffic fee are average vehicular trips per day. An estimate is made of the gross total number of development units expected to be realized in the City through build-out. Previous fee calculations included an adjustment downward to the total number of traffic vehicular trips to accommodate the public project factor under the assumption that some public projects may be exempt from the payment of traffic infrastructures fees. However, the City has negotiated payments in lieu of fees from several public projects. Because the City intends to recover as much of the cost of infrastructure as possible through negotiation, it is proposed that the adjustment for public projects be discontinued. The number of public projects exempt from fees and with which payments in lieu of fees cannot be negotiated is deemed to be negligible.

Reimbursements Policies

Reimbursement Interest Costs. Developers who construct master plan facilities are eligible for reimbursement of costs in excess of the fees levied on their development. Current policy allows the reimbursements to occur over a period of up to ten years depending on the size of the reimbursement. Up to now most reimbursements have been paid in a lump sum once the amount of credit received was known and the amount of reimbursement could be calculated. However, reimbursements are beginning to be spread over more than one year when sufficient funds are not available in the first year. It is proposed that interest rate be paid on the outstanding reimbursements. The rate paid will be tied to the Local Agency Investment Fund (LAIF) average rate for the fiscal year. The current projection of the average LAIF rate is 8%. The interest has been added to the total cost of providing the required facilities. The estimate of interest costs as a percent of the total cost of required facilities is 3.74%. The calculation of this estimate is shown in Attachment No. 1.

Reimbursement Processing Fee. The engineering time required to process reimbursements is considerable. This service is provided by the Engineering Development Section of the Public Works Department and charged to the developer reimbursement budget of the Traffic Circulation System Improvement Fund, since the processing of the reimbursements is a cost of providing the required facilities. The cost of the reimbursement processing is estimated to be 0.65% of the total cost of required facilities. This cost has been added to the cost of required facilities. The calculation of these estimates is provided in Attachment No. 1.

Reimbursements Policies. Improvements built and dedicated will be reimbursed based on the policies in effect at the time of map recordation. Developments with development agreements which freeze fees or limit fee increases to an inflation index will be reimbursed based on the policy in effect at the time of the agreement.

Turn lanes and traffic signals located on master planned roadways but which are not master planned facilities (eg. local intersections and driveways) are not eligible for reimbursement.

The cost of severance for parcels which lose their economic viability due to dedication of right-of-way and the cost of relocation or buying of businesses which must be condemned to obtain right-of-way are not currently in the cost basis of the traffic impact fee nor are they eligible for reimbursement costs. At the request of representatives of the development community, staff will develop cost estimates for including these costs in the next revision of the traffic impact fee.

It is proposed that the method of calculating a developer's cost of providing master planned facilities be changed. These costs are calculated for the purpose of providing reimbursement for the portion of the costs that exceed the amount of the fees payable by that development which provided the master planned facilities. Currently the cost is estimated by requiring that the developer provide three bids from contractors for the construction of the facilities. The lowest bid is used as the cost estimate for the facilities. The drawbacks of this method are that the bids are not provided through an actual bidding process and the actual construction of the facilities is not necessarily provided by the three bidders. The construction of the master planned facilities are generally part of a larger construction project for the developer. The cost estimates resulting from this method vary greatly from project to project and generally result in higher costs than those estimates upon which the infrastructure fees are based.

It is proposed that the cost estimate for reimbursement of master planned facilities provided by developers be based on a unit cost calculation. Lists of unit costs for construction of master planned facilities will be maintained by the Public Works Department (Attachment No. 5) and used both as the basis for estimating the basis of the infrastructure facilities fees and as the basis for reimbursing developers for the provision of those facilities. The accuracy of the list of unit costs will be monitored and adjusted as needed to maintain its validity as a method of cost estimating. When the unit cost list will be adjusted for both the basis of calculating the infrastructure fee and for calculating reimbursements to developers.

Also, the resolution on credit and reimbursement policies has the added stipulation that credits and reimbursements are processed upon written request from the person eligible for a credit or reimbursement. This has been the practice and is added to the resolution for clarity.

Planned Traffic Circulation Facilities Fees

In February of 1985, the City Council imposed planned traffic circulation facilities fees, sometimes called the Circulation System Improvement Fee (CSIF). The fee was amended in July, 1985. The purpose of the fee is to fund roadway improvements that are necessary due to new development and to spread the cost of these improvements fairly among the new developments.

Basic Assumption. The basic assumption is that beginning with the inception of the fee in 1985, there are certain circulation system improvement costs which are expected to be incurred, a portion of which is the responsibility of new development. All new developments in the City after 1985 should share proportionately in that cost.

Development Time Frame. The CSIF has been adjusted to reflect the information in the recently adopted 2020 General Plan.

Required Circulation System Improvements. The list of required improvements to be funded by the CSIF has been adjusted in the following ways:

1. The roadway cross-section has been increased where necessary to accommodate estimated increases in the traffic load.

2. Roadway improvements have been added where necessary to maintain a Level of Service "C" as adopted in the 2020 General Plan.

3. Required improvements to secondary and collector roadways have been added to the list of arterial roadways in order to spread the cost of the complete Circulation System. Previously, secondary and collector roadways were not included in the master plan. Only the cost of arterial roadway improvements was spread to all developers through the CSIF. The cost of providing secondary and collector roadways was the responsibility of the adjacent developments. By adding secondary and collector roadway improvements to the fee these costs can be distributed to other developments that benefit from the construction of the secondary and collector roadways.

4. The cost of acquiring right-of-way for off-site or City built improvements but not the developer's cost of dedicating right-of-way required for the circulation system improvements has been added to the fee calculation. Previously, the total cost of right-of-way was borne by the developments conditioned to build the improvements or by other resources if the City built the improvements. By including the cost of off-site right-of-way in the basis of the fee, these costs can be distributed more fairly to all developments which benefit from the roadway improvements. Although the fee increases greatly due to the inclusion of right-of-way costs, those developers providing off-site right-of-way will now be eligible for reimbursement of right-of-way costs in excess of the fees paid.

Other Sources of Funding. A portion of the cost of the required facilities is offset by other sources of revenue. Only the unfunded portion of the cost of required facilities will be distributed to future development through the CSIF. Each revenue source is discussed below:

1. City General Fund.

An average of $180,000 in General Fund money has been appropriated to eligible CSIF projects during the five years following implementation of the fee (FY

1985-86 through 1989-90). The General Fund contribution to the Circulation System Improvement Program is therefore estimated to be $190,000 per year during the period from 1991 through build-out in the year 2020. The total estimated contribution is $5.7 million.

2. Federal Funds (Federal Aid to Urban Roads FAU).

The City's average annual funding from FAU is $443,000. The FAU contribution for the 30 year period through build-out is estimated to be $13.29 million. FAU funding has not been reauthorized by Congress. It is expected that a new Federal program will replace it. Once a new program is adopted it may be necessary to revise the estimate of funding from Federal sources.

3. State Funding and Project Cost Sharing with the Port of Hueneme and the City of Ventura.

Outlined below are the proposed funding assumptions regarding five major projects which are eligible for State funding cost sharing with the Port of Hueneme and the City of Ventura:

(1) Rice Bypass (86% State - 14% City).

The Rice Bypass Project consists of the conversion of Rice Avenue from a point south of Fifth Street to US-101 from a six-lane arterial to a freeway. This includes the construction of a grade separation at the Southern Pacific Railroad (100% state funded), a freeway to freeway interchange at US-101 (100% state funded), two local interchanges at Gonzales Road and at Colonia Road (50% state funded, 50% local funded) and roadway improvements (100% state funded). The total project cost is estimated at $61,300,000 of which $52,600,000 will be provided by the state and $8,700,000 by the City.

(2) Rice/101 Interchange (0% State - 100% City).

Because of the high accident rate and congestion levels, the Rice/Highway 101 Interchange has been identified by Caltrans as an interchange which is a State responsibility to reconstruct. While the reconstruction is all State responsibility, the current lack of State funding and the projected need for a reconstructed facility within the next five years will probably mean that local funds will be required to complete this project in a time frame which meets City needs. Therefore, it is assumed that the City will provide the total project cost currently estimated at $20,000,000.

(3) Rose/101 Interchange (0% State - 100% City).

At the present time, the reconstruction of the Rose/Highway 101 Interchange has been identified by Caltrans as a local responsibility because of its low accident rate and congestion levels. As the congestion levels and accident rates increase, by the mid-1990's this facility's reconstruction will be required. Therefore, it is assumed that the City will provide the total project cost currently estimated at $16,300,000.

(4) Route 1/Rice Avenue/Pleasant Valley Road Interchange (89% State - 8% Port of Hueneme - 3% City).

The reconstruction of the Route 1/Rice Avenue/Pleasant Valley Road Interchange has been programmed in the State Transportation Improvement Program (STIP) for construction in the 1996-97. $31,900,000 of the cost is being funded by Caltrans. The extension of Rice Avenue to Hueneme Road will be necessary for the expansion of the Port of Hueneme and the construction of the Ormond Beach development. It is estimated that $3,000,000 of the $3,915,000 will be provided by the Port of Hueneme for this project. The total project cost is $35,815,000 of which $31,900,000 will be provided by the State, $3,000,000 by the Port of Hueneme and $915,000 by the City. The following table summarizes the funding assumptions.

Route 1/Rice Avenue/Pleasant Valley Road Funding

	Project Estimate	State Share	Port Share	Oxnard Share
Construction and Engineering	$35.8	$31.9	$3.0	$0.9

(5) Route 101-Vineyard to Johnson (50% State - 20% Ventura - 30% City).

The reconstruction of the Highway 1/101 Interchange is by definition a State responsibility, since it is a state-to-state facility and an adopted freeway agreement exists for the improvements (although some modifications are being proposed). While this project is included as the Ventura County Transportation Commission's (VCTC) top priority, local funding will probably be required by the State, partially because of the perceived "developer benefits." Also, this project has been combined with the widening of Route 101, including the widening of the Santa Clara River Bridge, which is a very costly project. The Caltrans Project Study Report estimates construction cost at $38 million. Caltrans has committed to a 50% share with a $19 million cap on construction funding with adjustments for inflation. The DKS consultant report suggests a local cost split of 60% Oxnard and 40% Ventura. The following table summarizes the resulting funding shares.

Route 101 - Vineyard Avenue to Johnson Drive Funding

	Project Estimate	State Share	Ventura Share	Oxnard Share
Construction	$38.0	$19.0	$7.6	$11.4
Engineering	3.8	1.9	0.8	1.1
Total	$41.8	$20.9	$8.4	$12.5

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(6) Del Norte/Route 101 Interchange (100% City).

The current interchange will need to be replaced with a partial cloverleaf interchange as the Northeast Industrial Area approaches build-out. Since the need for a new interchange is primarily due to increased development, it is assumed that the City will provide the total project cost currently estimated at $12,000,000.

Based on all of the revenue projections outlined above, the estimated funding gap for projects identified by the Circulation System Improvement Program is computed as follows (See Attachment Nos. 2 and 3).

Total Estimated CSIF Cost		$484,323,000
Less:	Generated Fund Contribution	(5,700,000)
	FAU Contribution	(13,290,000)
	State Share of Projects	(105,400,000)
	Port of Hueneme Share of Projects	(3,000,000)
	City of Ventura Share of Projects	(8,400,000)
Funding From Other Sources		($135,790,000)
Net Revenue Requirement		$348,533,000

Development Estimate: Trip Generation. The information used to estimate average daily trips per acre and trips per unit and per 1,000 square foot floor space is based on the current industry standards from the Institute of Transportation Engineers Trip Generation Report, 4th Edition.

To establish the total average daily trips projected, these trip generation factors are applied to the undeveloped units and floor area as shown in the 2020 General Plan. The trips for retail land uses and hotel/motel are adjusted for peak trips (see Attachment No. 4). The total resulting trips are 672,821.

Computation. By dividing the total estimated revenue requirement of $348,533,000 by 672,821 trips, the resulting base fee is $518.01 per vehicular trip. While this represents a 104.1 percent increase over the current fee of $253.76, staff believes that the adjustment is balanced by the increased reimbursement for right-of-way and collector roadway improvements.

JEF:DWB:ek
Attachments
#1 - Interest on Reimbursement & Reimbursement Processing Fees
#2 - Traffic Primary, Secondary & Collector Improvements
#3 - Circulation System Improvements
#4 - Trip Generation
#5 - Eligible Items & Unit Costs for Reimbursement
and Cost Basis of Facility Fees

TRAFFIC IMPACT FEES

	STREET	CONSTRUCTION CITY PRIMARY IN $1000 S	CONSTRUCTION CITY SECONDARY IN $1000 S	CONSTRUCTION CITY COLLECTOR IN $1000 S	CONSTR. TOTAL IN $1000 S	R.O.W. CITY PRIMARY IN $1000 S	R.O.W. CITY SECONDARY IN $1000 S	R.O.W. CITY COLLECTOR IN $1000 S	R.O.W. TOTAL IN $1000 S	GRAND TOTAL IN $1000 S
1	BARD ROAD	$0	$1,730	$502	$2,232	$0	$227	$0	$227	$3,566
2	"C" STREET	$0	$250	$0	$250	$0	$145	$0	$145	$573
3	CHANNEL ISLAND BL.	$0	$3,730	$0	$3,730	$0	$689	$0	$689	$6,408
4	COLONIA ROAD	$6,365	$0	$0	$6,365	$2,073	$0	$0	$2,073	$12,235
5	DEL NORTE BL.	$1,290	$0	$1,310	$2,600	$881	$200	$0	$1,081	$5,337
6	DORIS AVE.	$0	$1,010	$0	$1,010	$0	$429	$49	$478	$2,158
7	ELEVAR STREET	$0	$1,796	$0	$1,796	$0	$1,904	$0	$1,904	$5,[illegible]
8	EMERSON AVENUE	$0	$1,203	$0	$1,203	$0	$523	$0	$523	$2,[illegible]
9	ETTING ROAD	$0	$0	$1,770	$1,770	$0	$0	$1,145	$1,145	$4,227
10	FIFTH STREET	$7,730	$7,270	$0	$15,000	$4,525	$249	$0	$4,774	$28,672
11	GONZALES ROAD	$21,300	$0	$0	$21,300	$4,000	$0	$0	$4,000	$36,685
12	"H" STREET	$0	$160	$0	$160	$0	$554	$0	$554	$1,035
13	HARBOR BL.	$0	$10,575	$0	$10,575	$670	$0	$0	$670	$16,305
14	HEMLOCK STREET	$0	$0	$140	$140	$0	$0	$43	$43	$265
15	HOBSON WAY	$0	$90	$0	$90	$0	$4	$0	$4	$136
16	HUENEME ROAD	$4,301	$0	$0	$4,301	$2,608	$0	$0	$2,608	$10,018
17	"J" STREET	$0	$0	$100	$100	$0	$0	$0	$0	$145
18	LATIGO AVENUE	$0	$4,118	$0	$4,118	$0	$4,826	$0	$4,826	$12,969
19	LOMBARD STREET	$0	$4,050	$0	$4,050	$0	$4,991	$0	$4,991	$13,109
20	OXNARD BL. - RERT.	$2,000	$0	$0	$2,000	$0	$0	$0	$0	$2,900
21	PACIFIC AVENUE	$0	$390	$0	$390	$0	$1,201	$0	$1,201	$2,307
22	PATTERSON ROAD	$0	$1,400	$0	$1,400	$0	$650	$0	$650	$2,973
23	PLEASANT VALLEY RD.	$5,950	$0	$0	$5,950	$3,628	$0	$0	$3,628	$13,888
24	RICE AVENUE	$1,201	$0	$0	$1,201	$200	$0	$0	$200	$2,031
25	ROSE AVENUE	$10,205	$0	$0	$10,205	$6,198	$0	$0	$6,198	$23,784
26	SANTA CLARA AVE.	$0	$0	$0	$0	$0	$0	$0	$0	$0
27	SAVIERS ROAD	$1,825	$0	$0	$1,825	$2,574	$0	$0	$2,574	$6,3[illegible]
28	SECOND STREET	$0	$55	$0	$55	$0	$0	$0	$0	
29	STATHAM BL.	$0	$50	$0	$50	$0	$524	$0	$524	$832
30	STROUBE STREET	$0	$2,800	$0	$2,800	$0	$145	$0	$145	$4,270
31	STURGIS ROAD	$0	$1,215	$0	$1,215	$0	$753	$0	$753	$2,854
32	TEAL CLUB ROAD	$0	$1,800	$0	$1,800	$0	$375	$0	$375	$3,154
33	THIRD STREET	$0	$50	$0	$50	$0	$0	$0	$0	$73
34	VENTURA BL.	$0	$2,220	$0	$2,220	$0	$2,573	$0	$2,573	$6,950
35	VENTURA ROAD	$8,005	$0	$0	$8,005	$1,267	$0	$0	$1,267	$13,444
36	VIA DEL NORTE	$0	$50	$0	$50	$0	$0	$0	$0	$73
37	VICTORIA AVENUE	$1,770	$0	$0	$1,770	$0	$644	$0	$644	$3,500
38	VINEYARD AVENUE	$3,090	$2	$0	$3,092	$0	$0	$0	$0	$4,483
39	WAGON WHEEL ROAD	$0	$0	$2,100	$2,100	$0	$0	$1,000	$1,000	$4,495
40	WOOLEY ROAD	$3,210	$3,100	$0	$6,310	$3,031	$545	$0	$3,576	$14,335
41	NO NAME STREET	$0	$1,620	$0	$1,620	$0	$1,939	$0	$1,939	$5,161
	SUBTOTAL				$134,898				$57,982	$279,676
	CONTINGENCY 20%	$15,648	$10,147	$1,184	$26,980	$6,331	$4,818	$447	$11,596	
	A&E 25%	$19,561	$12,684	$1,481	$33,725	$7,914	$6,023	$559	$14,496	
	TOTAL	$113,451	$73,564	$8,587	$195,602	$45,900	$34,931	$3,244	$84,074	$279,676

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CIRCULATION SYSTEM IMPROVEMENTS

					Current Estimate CCI = 6080
Highway Improvements					
1 Rice Bypass					$61,300,000
2 Rice/101 Interchange					$20,000,000
3 Rose/101 Interchange					$16,300,000
4 Route 1/Rice Interchange/Rice Extension					$35,815,000
5 Route 101 -- Vineyard to Johnson					$41,800,000
6 Del Norte/101 Interchange					$12,000,000
Total Highway Improvements					$187,215,000

	Cost Base Construction	Right of Way	CCI = 5988 Less % Dedi-cated	Right of Way	
Interior Roadways					
Primary	$113,451,000	$45,900,000	44%	$25,704,000	
Secondary	73,564,000	34,931,000	44%	$19,561,360	
Collector	8,587,000	3,244,000	44%	$1,816,640	
Subtotals	$195,602,000	$84,075,000		$47,082,000	
Total Interior Roadways				$242,684,000	$246,413,000

Drainage Facilities (Non-Master Planned) within Master Planned Streets			$25,632,000
Traffic Signals	CCI = 5988	$12,095,000	$12,281,000
Reimbursement Interest Cost	3.74% X	$284,326,000	$10,634,000
Reimbursement Processing Cost	0.65% X	$284,326,000	$1,848,000
Periodic Masterplan Updates			$300,000
TOTAL COST OF IMPROVEMENTS			$484,323,000
Other Sources of Funding			
1 General Fund Contribution			($5,700,000)
2 FAU Contribution			(13,290,000)
3 State Share of Projects			(105,400,000)
4 Port of Hueneme			(3,000,000)
5 City of Ventura Share of Projects			(8,400,000)
Total Other Sources			($135,790,000)
NET COST OF IMPROVEMENTS			$348,533,000
Total Number of Trips to Buildout			672,821
COST PER TRIP			$518.01

	Sources of Funding				
Highway Improvements	Oxnard	State	Port	Ventura	Total
1 Rice Bypass	8,700,000	52,600,000			61,300,000
2 Rice/101 Interchange	20,000,000				20,000,000
3 Rose/101 Interchange	16,300,000				16,300,000
4 Route 1/Rice Interchange/Rice Extension	915,000	31,900,000	3,000,000		35,815,000
5 Route 101 -- Vineyard to Johnson	12,500,000	20,900,000		8,400,000	41,800,000
6 Del Norte/101 Interchange	12,000,000				12,000,000
Total	70,415,000	105,400,000	3,000,000	8,400,000	187,215,000

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06-Jul-92 TRIP GENERATION -- CITY OF OXNARD -- 2020 GENERAL PLAN C:\123DATA\DATADEV\TRIPS.WK1

USE	1989 AM	1989 PM	1989 ADT	2020 AM	2020 PM	2020 ADT	CHANGE FROM 1989 TO 2020 AM	PM	ADT	PM/ADT	GROUP PM/ADT	RATIO OF GROUP PM/ADT TO TOTAL PM/ADT	ADJUSTED ADT
1 Res - Low (SFD)	26,304	32,150	321,497	29,616	36,198	361,977	3,312	4,048	40,480	10.00%			40,480
2 Res - Medium (SFA)	2,355	2,944	25,318	6,824	8,530	73,358	4,469	5,586	48,040	11.63%			48,040
3 Res - Medium /High	4,374	4,374	44,361	5,161	5,161	52,348	787	787	7,987	9.85%			7,987
4 Apartments	6,409	7,477	69,433	6,670	7,781	72,254	261	304	2,821	10.78%			2,821
5 Elderly Residential	419	419	3,458	499	499	4,118	80	80	660	12.12%			660
6 Mobile Homes	1,459	1,345	13,733	1,639	1,510	15,422	180	165	1,689	9.77%			1,689
7 Office (0-99 TSF)	689	690	5,988	948	948	6,997	259	258	1,009	25.57%			1,009
8 Office (100 TSF+)	1,218	1,195	10,116	9,461	9,319	64,903	8,243	8,124	54,787	14.83%			54,787
9 Government Office	1,889	1,889	23,468	2,002	2,002	23,468	113	113	0				0
10 Medical Office	183	1,165	17,344	270	1,252	17,344	87	87	0				0
11 General Commercial	1,986	14,233	167,488	2,563	18,369	216,156	577	4,136	48,668	8.50%	6.99%	61.3%	29,831
12 Regional Commercial	611	2,757	30,910	1,673	4,940	84,694	1,062	2,183	53,784	4.06%	6.99%	61.3%	32,966
13 Communitycommercial	2,330	7,695	103,426	3,328	10,990	147,707	998	3,295	44,281	7.44%	6.99%	61.3%	27,142
14 Nghbrhd Commercial	503	1,823	21,071	1,414	5,129	59,288	911	3,306	38,217	8.65%	6.99%	61.3%	23,425
15 Cnvnc Commercial	236	938	9,313	245	973	9,667	9	35	354	9.89%	6.99%	61.3%	217
16 Restaurant	378	2,274	27,735	438	2,634	32,134	60	360	4,399	8.18%			4,399
17 Fast-Food Restaurant	4,159	2,477	47,080	4,583	2,730	51,884	424	253	4,804	5.27%			4,804
18 Motel	526	458	7,575	525	462	7,171	(1)	4	(404)	-0.99%			(404)
19 Hotel	997	819	12,600	1,944	1,631	23,457	947	812	10,857	7.48%	7.48%	65.6%	7,119
20 Auto Dealer	1,331	1,936	19,269	1,331	1,936	19,269	0	0	0				0
21 Business Park	814	588	6,270	19,224	15,032	116,574	18,410	14,444	110,304	13.09%			110,304
22 Warehouse	27	40	270	41	54	270	14	14	0				0
23 Light Ind (Exist)	5,503	5,996	38,427	7,554	8,031	37,159	2,051	2,035	(1,268)	-160.49%			(1,268)
24 Light Ind (Future)	1,654	1,588	18,875	31,150	30,260	253,944	29,496	28,672	235,069	12.20%			235,069
25 Industrial	1,928	2,698	20,930	4,257	5,258	27,193	2,329	2,560	6,263	40.87%			6,263
26 Agriculture	47	47	468	32	32	315	(15)	(15)	(153)	9.80%			(153)
27 Elementary School	2,727	545	18,541	3,657	731	24,865	930	186	6,324	2.94%			6,324
28 Junior High School	755	151	5,137	2,045	409	13,909	1,290	258	8,772	2.94%			8,772
29 High School	1,804	1,336	9,285	4,720	3,496	24,297	2,916	2,160	15,012	14.39%			15,012
30 College	816	576	7,440	816	576	7,440	0	0	0				0
31 Golf Course	60	60	1,663	60	60	1,663	0	0	0				0
32 Civic Auditorium	0	0	0	0	0	0	0	0	0				0
33 Church	0	0	797	0	0	1,314	0	0	517	0.00%			517
34 Park	0	0	1,039	0	0	2,235	0	0	1,196	0.00%			1,196
35 Harbor Related	622	1,188	3,533	622	1,188	3,533	0	0	0				0
36 Hospital	840	1,099	11,354	751	945	8,482	(89)	(154)	(2,872)	5.36%			(2,872)
37 Health Club	328	737	8,190	274	616	6,840	(54)	(121)	(1,350)	8.96%			(1,350)
38 Transportation Cntr	66	64	420	66	64	420	0	0	0				0
39 Theatre	0	169	1,540	0	121	1,100	0	(48)	(440)	10.91%			(440)
40 Airport	30	30	300	30	30	300	0	0	0				0
41 Service Station	378	450	13,464	399	475	14,212	21	25	748	3.34%			748
42 Bank	311	1,166	13,135	311	1,166	13,135	0	0	0				0
43 Cemetary	0	0	0	0	0	0	0	0	0				0
44 Car Wash	63	75	2,244	63	75	2,244	0	0	0				0
45 Self-Storage	45	61	424	75	100	697	30	39	273	14.29%			273
46 Auto Repair	633	791	7,910	633	791	7,910	0	0	0				0
47 Edison Power Plant	71	71	159	71	71	159	0	0	0				0
48 Landfill	0	0	550	0	0	550	0	0	0				0
49 Beach	0	202	1,686	0	202	1,686	0	0	0				0
50 Marina	0	0	0	3	5	84	3	5	84	5.95%			84
51 Day Care Center	0	0	0	1,251	1,353	7,370	1,251	1,353	7,370	18.36%			7,370
52 Cultural/Perf Arts	0	0	0	0	0	0	0	0	0				0
TOTAL	77,878	108,786	1,175,234	159,239	194,135	1,923,516	81,361	85,349	748,282	11.41%			672,821

ATTACHMENT 4

PAGE 9 OF 14

000161

(ENR = 6080)

UNIT COST FOR REIMBURSEMENT

IMPROVEMENT COSTS

BY PROJECT SIZE

		UNIT COST	UNIT	PROJECT SIZE
1	CONC. CURB	$10.00	L.F.	
2	CONC. CURB & GUTTER	$10.00	L.F.	SMALL : SUM COST < $200,000 ALLOW 10% ABOVE,
3	MEDIAN CURB	$10.00	L.F.	
4	CONC. SIDEWALK	$3.00	SQ. FT.	
5	PVMT. AC. (PER IN. TH.) PVMT. BASE (PER IN. TH.) (EARTHWORK NOT INCLUDED)	$0.25 $0.15	SQ. FT. SQ. FT.	MEDIUM : $200,000 ≤ SUM COST & SUM COST ≤ $1,000,000 USE THESE UNIT COSTS.
6	LANDSCAPING & IRRIGATION	$6.46	SQ. FT.	
7	BOMANITE	$8.00	SQ. FT.	
8	TRAFFIC SIGNAL INTERCONNECT	$10.00	L.F.	
9	SIGNS & STRIPES	$3.50	L.F. OF ST.	LARGE : SUM COST > $1,000,000 ALLOW 20% UNDER,
10	LIGHTING & TRENCHING	$10.00	L.F.	

(ENR = 6080)

UNIT COST FOR REIMBURSEMENT

SEWER IMPROVEMENT COSTS

	PIPE SIZE	UNIT COST	UNIT
1	10" V.C.P.	$25.00	L.F.
2	12" V.C.P.	$30.00	L.F.
3	15" V.C.P.	$37.50	L.F.
4	18" V.C.P.	$45.00	L.F.
5	21" V.C.P.	$52.50	L.F.
6	24" V.C.P.	$60.00	L.F.
7	FT. MANHOLE PRECAST 48" DIAM. $200 PER VERT. FT. (ADD $20/FT. FOR DROP M.H.)		EACH
8	MANHOLE RING & COVER (CAST IRON)	$400.00	EACH

FOR PIPE INSTALLATION IN UNPAVED (NEW) STREETS & OTHER AREAS, REDUCE UNIT COST BY 25%.

(ENR = 6080)

UNIT COST FOR REIMBURSEMENT

WATER IMPROVEMENT COSTS

	SIZE	UNIT COST	UNIT
1	10" PIPE, IN PLACE	$27.00	L.F.
2	12" PIPE, IN PLACE	$32.00	L.F.
3	14" PIPE, IN PLACE	$36.00	L.F.
4	16" PIPE, IN PLACE	$42.00	L.F.
5	20" PIPE, IN PLACE	$52.00	L.F.
6	10" TEE, IN PLACE	$400.00	EACH
7	12" TEE, IN PLACE	$500.00	EACH
8	16" TEE, IN PLACE	$1,400.00	EACH
9	20" TEE, IN PLACE	$2,000.00	EACH
10	10" CROSS, IN PLACE	$550.00	EACH
11	12" CROSS, IN PLACE	$650.00	EACH
12	16" CROSS, IN PLACE	$1,500.00	EACH
13	20" CROSS, IN PLACE	$2,200.00	EACH
14	12"x10" REDUCER, IN PLACE	$250.00	EACH
26	16"x10" REDUCER, IN PLACE	$1,000.00	EACH
27	20"x10" REDUCER, IN PLACE	$1,500.00	EACH
28	2" BLOW-OFF, IN PLACE	$400.00	EACH
29	6" BLOW-OFF, IN PLACE	$1,200.00	EACH
30	10" ELL 90 OR 45 DEG., IN PLACE	$300.00	EACH
31	12" ELL 90 OR 45 DEG., IN PLACE	$350.00	EACH
32	16" ELL 90 OR 45 DEG., IN PLACE	$1,000.00	EACH
33	20" ELL 90 OR 45 DEG., IN PLACE	$1,500.00	EACH
34	10" VALVE, IN PLACE	$800.00	EACH
35	12" VALVE, IN PLACE	$900.00	EACH
36	16" VALVE, IN PLACE	$2,000.00	EACH
37	20" VALVE, IN PLACE	$3,000.00	EACH
38	1" AIR RELEASE	$400.00	EACH

FOR INSTALLATION OF ALL NEW ITEMS
IN UNPAVED (NEW) STREETS& OTHER AREAS,
REDUCE COST BY 25%.

(ENR = 6080)

UNIT COST FOR REIMBURSEMENT

UNIT COST FOR REIMBURSEMENT

DRAINAGE IMPROVEMENT COSTS

	PIPE SIZE	UNIT COST	UNIT
1	18" R.C.P., IN PLACE	$45.00	L.F.
2	21" R.C.P., IN PLACE	$50.00	L.F.
3	24" R.C.P., IN PLACE	$60.00	L.F.
4	30" R.C.P., IN PLACE	$75.00	L.F.
5	36" R.C.P., IN PLACE	$83.00	L.F.
6	42" R.C.P., IN PLACE	$97.00	L.F.
7	42" R.C.P., IN PLACE	$110.00	L.F.
8	60" R.C.P., IN PLACE	$132.00	L.F.
9	72" R.C.P., IN PLACE	$150.00	L.F.
10	STANDARD MANHOLE	$2,500.00	EACH
11	JUNCTION STRUCTURES	$1,500.00	EACH
12	STANDARD CATCH BASIN	$3,000.00	EACH
13	CLASS A REINFORCED CONC. (MORE THAN 100 C.Y.) (INCLUDES REINFORCEMENT)	$320.00	CU. YD.
14	CLASS A REINFORCED CONC. (LESS THAN 100 C.Y.) (INCLUDES REINFORCEMENT)	$380.00	CU. YD.

FOR PIPE INSTALLATION IN UNPAVED
(NEW) STREETS & OTHER AREAS,
REDUCE UNIT COST BY 25%.

(ENR = 6080)

UNIT COST FOR REIMBURSEMENT

RIGHT - OF - WAY COSTS

	LAND USE	COST PER ACRE		COST PER SQ.FT.
1	AGRICULTURAL	$110,000		$2.53
2	RESIDENTIAL	$220,000		$5.05
3	LIGHT MANUFACTURING	$275,000		$6.31
4	COMMERCIAL	$475,000		$10.90
5	COASTAL DEVELOPEMENT	$330,000		$7.58

ABOVE COSTS INCLUDE APPRAISAL COSTS,
LEGAL COSTS, & CONDEMNATION COSTS, IF ANY.

June 18, 2007

Interim Traffic Fee Calculation

City Contribution To Freeway Improvements	1992 Study	Inflation	2007
1. Rice Bypass freeway	$8.7 million	X 1.31	$11.4 million
2. Rice/101			$76.8
3. Rose/101			$21.3
4. Route1/Rice/Pl Valley			$0.9
5. Route 101/Santa Clara Bridge			$18.0
6. Del Norte/101			$39.0
		Total Freeways	$167.4 million
Roadways	$246.4 million	X 1.31	$322.8 million
Other Costs	$50.6 million	X 1.31	$66.3 million
	Total Cost of Improvements		$556.5 million
Total Number of Trips to Buildout (as of 1992)			672,821 trips
COST PER TRIP			$827 preliminary
Deduct 11% and round down			**$730 per daily trip**

CITY COUNCIL OF THE CITY OF OXNARD

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OXNARD ADOPTING A NEGATIVE DECLARATION, SETTING INTERIM PLANNED TRAFFIC CIRCULATION FACILITIES FEES AND STATING THE URGENCY THEREOF

WHEREAS, Division 5 of Article VI of Chapter 15 of the Oxnard City Code imposes planned traffic circulation facilities fees on development projects producing additional vehicle trips, such fees to be set by resolution; and

WHEREAS, the Public Works Director has presented to the City Council a report entitled "Adjustment of Planned Circulation Facilities Fees", dated June 18, 2007, which sets forth the basis of the fees adopted by this resolution; and

WHEREAS, the City Council desires to adopt this interim resolution in order to cause the subject fees to be effective on June 27, 2007; and

WHEREAS, in accordance with the California Environmental Quality Act, the Planning and Environmental Services Manager provided public notice of the intent of the City to adopt a negative declaration for this project, and the City Council has considered the proposed negative declaration, together with any comments received during the public review process, and finds on the basis of the whole record before it (including the initial study and any comments received) that there is no substantial evidence that the project will have a significant effect on the environment, and further finds that the negative declaration reflects the independent judgment of the City, and adopts the negative declaration; and

WHEREAS, the City Council finds that the fees adopted herein satisfy the requirements of law, including the Oxnard City Code.

NOW, THEREFORE, the City Council of the City of Oxnard resolves as follows:

1. Development Projects. All development projects producing additional vehicle trips shall pay the planned traffic circulation facilities fees established by this resolution.

2. Staff Report.

a. The staff report dated June 18, 2007, is attached hereto as Exhibit A and is hereby approved and incorporated herein by this reference. Such report provides the basis for the City Council's determination that there is a reasonable relationship between the amount of the planned traffic circulation facilities fees ("fees") established herein and the cost of the traffic circulation facilities or portion thereof attributable to the development project on which the fees are imposed.

b. The methodology for determining the fee is to estimate the costs associated with each new vehicle trip that is created by development. This is accomplished by first estimating the costs to acquire necessary rights-of-way and construct improvements in the City's traffic circulation facilities that are consistent with the City's 2020 General Plan. Such costs are then divided by the estimated number of new vehicle trips such improvements will serve. The resulting quotient is the estimated costs per each new vehicle trip added by development within the City. Such fee per vehicle trip is then multiplied by the estimated number of new vehicle trips associated with a specific development. The estimated number of new vehicle trips is based upon trip generation rates developed by the Institute of Transportation Engineers and published in its Trip Generation Report, 7th Edition for all uses except single family detached residential uses. The San Diego Association of Governments ("SANDAG") Traffic Generation Rates are used for single family detached residential uses.

c. The number of new vehicle trips served by the improvements to the City's traffic circulation facilities is 672,821 trips. This number was arrived at by a traffic study completed in 1992 that estimated the number of new vehicle trips the improvements would serve.

d. The estimated costs for the acquisition of rights-of-way and construction of the traffic circulation facilities are also a function of the traffic study that was completed in 1992. The costs were updated in the following manner:

(1.) The traffic circulation facilities improvements for the Rose Avenue/Highway 101 interchanges have been completed and the actual costs incurred were $21.3 million. These costs were used in the calculation.

(2.) The traffic circulation facilities improvements for Highway 101 – Vineyard Avenue to Johnson Drive are nearing completion and the City's share of the costs will be $18.0 million. These costs were used in the calculation.

(3.) The engineer's estimate for the traffic circulation facilities improvements for the Rice Avenue/Highway 101 interchange has been updated and is $76.8 million. This updated estimate was used in the calculation.

(4.) The engineer's estimate for the traffic circulation facilities improvements for Del Norte Boulevard/Highway 101 interchange has been updated and is $39.0 million. This updated estimate was used in the calculation.

(5.) The engineer's estimate for the City's contribution towards the traffic circulation facilities improvements for the Highway 1/ Rice Avenue Interchange/ Rice Avenue extension remains unchanged from the 1992 study. This estimate was used in the calculation.

(6.) The remaining estimates have been adjusted for inflation by using the current Construction Cost Index and dividing by the estimated Construction Cost Index used to make the estimates used in the 1992 study. This resulted in multiplying the remaining estimates by a factor of 1.31.

e. The fee per additional vehicle trip was then further reduced to reflect a conservative methodology and rounded down to a fee of $730 per each new vehicle trip.

f. Such fee is further refined by using specific traffic generation factors associated with specific types of development.

g. The resulting fees preserve a reasonable relationship between the need for traffic circulation facilities improvements and the development projects on which the fees will be imposed because such development projects cause traffic congestion on a citywide basis that the traffic circulation facilities improvements mitigate or will mitigate.

h. There is a reasonable relationship between the fees' use and development projects on which the fees will be imposed because the fees will only fund that portion of the improvements allocable to congestion caused by those development projects.

i. The City Council further determines that there is a reasonable relationship between the use of the fees and the type of development project on which the fee is imposed, and between the need for traffic circulation facilities and the type of development project on which the fee is imposed. The master plan of traffic circulation, the Circulation Element of the 2020 General Plan, the report referred to in subsection (a) of this section, and the provisions of Division 5 of Article VI of Chapter 15 of the Oxnard City Code provide the basis for such determination.

3. Fees. The total fee per additional trip is $730.

4. Calculation of Fees. The fees imposed on each development project will be calculated as follows:

a. The Public Works Director shall be responsible for calculating the fees imposed on each development project.

b. Development projects subject to the fees include modifications or additions to existing buildings that generate more average daily vehicle trips than can be reasonably attributed to the current size, condition or use of the property. The Public Works Director shall consider changes in use of the property and/or additions to the gross floor area.

c. For non-office commercial land uses, the total number of trips generated shall be adjusted using the peak to average trip ratio for commercial uses divided by the same statistic for all other land uses. This adjustment shall be made to account for the fact that the commercial uses generate proportionately less peak time travel than other uses and, therefore, such uses impact the circulation system to a lesser degree than would be suggested from use of unadjusted average trip date. The City Council finds that the peak to average trip ratio is found to be 6.99 percent for general commercial uses and 7.48 percent for hotels, while the peak to average trip ration for other uses is determined to be 11.41 percent. The adjustment factor is, therefore, 6.99/11.41 = 0.613 for general non-office commercial and 7.48/11.41 = 0.656 for hotel/motel uses.

d. Trip generation rates have been prepared based upon statistical data collected and analyzed by the Institute of Transportation Engineers and published in its Trip Generation Report, 7th Edition and SANDAG Traffic Generation Rates.

e. Trip generation rates and the resulting fees shall be as follows for specific types of development projects:

(1) Residential.

(a) Single Family Detached

11.0 Trips/Unit x $730/Trip = $8,030/ Unit

(b) Condominium

8.6 Trips/Unit x $730/Trip = $6,278/ Unit

(c) Apartment

6.5 Trips/Unit x $730/Trip = $4,745/ Unit

(d) Mobile Home

5.0 Trips/Unit x $730/Trip = $3,650/ Unit

(2) Commercial

(a) General Retail and Service

27.1 Trips/1,000 gross square feet of floor area x $730/Trip = $19,783/1,000 gross square feet of floor area.

Note: This trip estimate has been modified pursuant to section 4.c, above.

(b) General Office

15 Trips/1,000 gross square feet of floor area x $730/Trip = $10,950/1,000 gross square feet of floor area.

(c) Medical Office

36.1 Trips/1,000 gross square feet of floor area x $730/Trip = $26,353/1,000 gross square feet of floor area.

(d) Motel/Hotel

6.5 Trips/room x $730/Trip = $4,745/room

(3) Industrial

(a) Research and Development (B-R-P Zone)

11.40 Trips/1,000 gross square feet of floor area x $730/Trip = $8,322/1,000 gross square feet of floor area.

(b) Light Industrial

6.96 Trips/1,000 gross square feet of floor area x $730/Trip = $5,081/1,000 gross square feet of floor area.

(c) Warehousing

4.96 Trips/1000 gross square feet of floor area x $730/Trip= $3,621/1000 gross square feet of floor area

(4) Special Projects

Traffic generation rates for developments and redevelopments not adequately represented above shall be determined according to the most similar current designation for which the Institute of Transportation Engineers provides trip generation statistics, or a project specific study acceptable to the Public Works Director.

5. Pursuant to Government Code section 66017, the fees imposed by this resolution are effective on August 26, 2007.

6. Government Code section 66017(b), however, authorizes City Council upon making certain findings by a 4/5 vote to order the fees to be effective immediately for a period of thirty days. Section 66017(b) also authorizes City Council to extend the effective date of this urgency resolution for an additional thirty days after notice and a public hearing.

7. This resolution is adopted pursuant to Government Code section 66017(b) because its passage is required for the immediate preservation of the public health, welfare and safety. The facts constituting this urgency are that: (a) there is a pressing need for infrastructure that will service new developments, (b) the provision of this essential infrastructure is dependant upon the availability of revenues from the fee imposed by this resolution, and (c) in order to ensure that the developers of all new developments proposed at this time in the City be responsible for paying their fair share of infrastructure costs. These facts constitute a current and immediate threat to the public health, welfare and safety. Accordingly, the City Council determines and finds that it is necessary for this resolution to be effective immediately on June 27, 2007.

8. The City Council orders that this urgency resolution be effective and the subject fee be imposed effective June 27, 2007.

9. Resolution No. 10,673 is superseded upon the effective date of this resolution.

10. If any provision, section, paragraph, sentence or word of this resolution, or the application thereof to any person or circumstance, is rendered or declared invalid by any court of competent jurisdiction, the remaining provisions, sections, paragraphs, sentences or words of this resolution, and their application to other persons or circumstances, shall not be affected thereby and shall remain in full force and effect and, to that end, the provisions of this resolution are severable.

PASSED AND ADOPTED THIS ___ day of __________, 2007 by the following vote:

AYES:

NOES:

ABSENT:

Dr. Thomas E. Holden, Mayor

ATTEST:

Daniel Martinez, City Clerk

APPROVED AS TO FORM:

Gary Gillig 06-21-07

Gary L. Gillig, City Attorney

OXNARD TRAFFIC STUDY GUIDELINES:

Traffic Study needed (Criteria for potential impacts to Ventura County Roadways):

1) Project generates more than 100 new trips in either the AM or PM
2) Residential projects containing 90 or more DU. (20 to 89 DU for Ventura County)
3) Commercial Office project containing 45,000 or more SF (11,000 to 44,999 for VC)
4) Medical Office projects containing 25,000 or more SF. (6,000 to 24,999 for VC)
5) Commercial Developments containing 25,000 or more SF. (6,000 to 24,999 for VC)
6) Fast Food –Drive Through Restaurants;
7) Manufacturing –Industrial projects containing 60,000 or more SF. (15,000 to 59,999 for VC)
8) Any existing project submitted for revision or amendment that will increase peak hour traffic by 50 or more trips.
9) Any project at the Public Works Director or Traffic Engineers discretion.
10) The General Plan requires all intersections to operate at LOS C for all scenarios.

Intersections List:

1) Traffic studies shall include a list of intersections where the project will worsen the ICU numeric value of LOS by 0.02 or more. This ICU List shall include intersections projected to be at LOS C with background traffic, and LOS D, E or F with background traffic plus project-generated traffic.
2) Traffic study shall evaluate an intersection when one of the following is met: more than 40 through movements on a single approach; more than 20 left turn movements on a single approach; or more than 75 vehicles per peak hour using the intersection.

Mitigations Measures:

1) Construction of all master planned facilities within the project area consisting of half the master planned roadways abutting the project area plus one lane.

2) Construction of all improvements necessary to mitigate impacts to intersections operating at LOS C or worse that will worsen the ICU by 0.02 or more, but not to exceed the mitigation limit at two times the project traffic impact fee. (Residential: $1,912.90/ DU, Commercial: $5,394.38/KSF, Industrial: $2,210.00/KSF).

Model Runs:

1) If the project is part of a General Plan Amendment, consideration must be given to the ultimate impact on the master plan networks. Thus, the following additional scenarios must be studied: Year 2020 and Year 2020 plus project.
2) Oxnard Transportation Model information shall be included in the report or in an appendix to the report.

ICU and Trip Generation:

1) ICU Minimum v/c is 0.05 for left turns and 0.07 for through movements.
2) For trip generation, the higher value between the average rate and fitted curve equation shall be used.

Appendix I
Air Quality Documents

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO:	**X**
Background 1-hour CO Concentration (ppm):	**2.3**
Background 8-hour CO Concentration (ppm):	**1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Ventura Road and Gonzales Road**
Analysis Condition: **Existing Traffic Conditions**

North-South Roadway:
Name: **Ventura Road**
Roadway Type:
Number of Lanes:
Average Cruise Speed:
A.M. Peak:
P.M. Peak

East-West Roadway:
Name: **Gonzales Road**
Roadway Type:
Number of Lanes:
Average Cruise Speed:
A.M. Peak:
P.M. Peak

A.M. Peak Hour Traffic Volumes

		N			
		60	454	80	
W		<	v	>	E
123	^			^	30
360	>			<	325
47	v			v	206
		<	^	>	
		153	516	294	
		S			

P.M. Peak Hour Traffic Volumes

		N			
		71	936	89	
W		<	v	>	E
116	^			^	83
425	>			<	490
117	v			v	548
		<	^	>	
		189	655	406	
		S			

Vehicles per Hour per Lane

	A.M.		P.M.
N:	1,263	N:	1,950
S:	1,670	S:	2,851
E:	1,295	E:	2,041
W:	1,068	W:	1,408
N-S Road:	1,670	N-S Road:	2,851
E-W Road:	1,295	E-W Road:	2,041

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2009

Roadway Data

Intersection: Ventura Road and Gonzales Road
Analysis Condition: Existing Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Ventura Road	At Grade	6	20	20
East-West Roadway:	Gonzales Road	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

	N					
		60	454	80		
W		<	v	>		E
123	^				^	30
360	>				<	325
47	v				v	206
		<	^	>		
		153	516	294		
	S					

P.M. Peak Hour Traffic Volumes

	N					
		71	936	89		
W		<	v	>		E
116	^				^	83
425	>				<	490
117	v				v	548
		<	^	>		
		189	655	406		
	S					

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	1,670	2,851
E-W Road:	1,295	2,041

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 E.O.R.	A_2 Reference CO Concentrations 25 Feet	A_3 50 Feet	A_4 100 Feet	B Traffic Volume	C Emission Factors[2]	Estimated CO Concentrations E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	1,670	4.92	0.78	0.50	0.40	0.29
East-West Road	3.3	2.6	2.2	1.7	1,295	4.92	0.21	0.17	0.14	0.11
P.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	2,851	4.92	1.33	0.86	0.69	0.49
East-West Road	3.3	2.6	2.2	1.7	2,041	4.92	0.33	0.26	0.22	0.17

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	3.3	4.0	2.6
25 Feet from Roadway Edge	3.0	3.4	2.3
50 Feet from Roadway Edge	2.8	3.2	2.1
100 Feet from Roadway Edge	2.7	3.0	2.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

	Year	Average Speed (miles per hour) 5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 6

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 3
E-W Lanes Number: 2

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO:	**X**
Background 1-hour CO Concentration (ppm):	**2.3**
Background 8-hour CO Concentration (ppm):	**1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Ventura Road and Gonzales Road**
Analysis Condition: **Future With Project Traffic Conditions**

North-South Roadway:
Name: **Ventura Road**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

East-West Roadway:
Name: **Gonzales Road**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

A.M. Peak Hour Traffic Volumes

	N				
	160	1,100	170		
W	<	v	>		E
280	^			^	100
330	>			<	330
100	v			v	250
	<	^	>		
	130	1,170	380		
	S				

P.M. Peak Hour Traffic Volumes

	N				
	100	1,530	310		
W	<	v	>		E
290	^			^	160
470	>			<	560
140	v			v	624
	<	^	>		
	320	1,230	350		
	S				

Vehicles per Hour per Lane

	A.M.		P.M.
N:	2,980	N:	3,620
S:	3,130	S:	4,194
E:	1,560	E:	2,474
W:	1,330	W:	1,880
N-S Road:	3,130	N-S Road:	4,194
E-W Road:	1,560	E-W Road:	2,474

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2030

Roadway Data

Intersection: Ventura Road and Gonzales Road
Analysis Condition: Future With Project Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Ventura Road	At Grade	6	20	20
East-West Roadway:	Gonzales Road	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

N					
		160	1,100	170	
W		<	v	>	E
280	^			^	100
330	>			<	330
100	v			v	250
		<	^	>	
		130	1,170	380	
S					

P.M. Peak Hour Traffic Volumes

N					
		100	1,530	310	
W		<	v	>	E
290	^			^	160
470	>			<	560
140	v			v	624
		<	^	>	
		320	1,230	350	
S					

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	3,130	N-S Road:	4,194
E-W Road:	1,560	E-W Road:	2,474

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	A_4	B	C				
		Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations			
Roadway	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors[2]	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	3,130	1.24	0.37	0.24	0.19	0.14
East-West Road	3.3	2.6	2.2	1.7	1,560	1.24	0.06	0.05	0.04	0.03
P.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	4,194	1.24	0.49	0.32	0.25	0.18
East-West Road	3.3	2.6	2.2	1.7	2,474	1.24	0.10	0.08	0.07	0.05

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	2.7	2.9	2.0
25 Feet from Roadway Edge	2.6	2.7	1.8
50 Feet from Roadway Edge	2.5	2.6	1.8
100 Feet from Roadway Edge	2.5	2.5	1.7

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

		Average Speed (miles per hour)											
	Year	5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 23

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1 At Grade
2 Depressed 15 Feet
3 Depressed 30 Feet
4 Elevated 15 Feet
5 Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1 2
2 4
3 6
4 8

N-S Lanes Number: 3
E-W Lanes Number: 2

ROADWAY SPEEDS

1 5
2 10
3 15
4 20
5 25
6 30
7 35
8 40
9 45
10 50
11 55
12 60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO: **X**
Background 1-hour CO Concentration (ppm): **2.3**
Background 8-hour CO Concentration (ppm): **1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Oxnard Boulevard and Gonzales Road**
Analysis Condition: **Existing Traffic Conditions**

North-South Roadway:
Name: **Oxnard Boulevard**
Roadway Type:
Number of Lanes:
Average Cruise Speed:
A.M. Peak:
P.M. Peak

East-West Roadway:
Name: **Gonzales Road**
Roadway Type:
Number of Lanes:
Average Cruise Speed:
A.M. Peak:
P.M. Peak

A.M. Peak Hour Traffic Volumes

	N				
		61	958	295	
W		<	v	>	E
223	^			^	353
927	>			<	733
59	v			v	268
		<	^	>	
		93	734	378	
	S				

P.M. Peak Hour Traffic Volumes

	N				
		112	1,287	405	
W		<	v	>	E
242	^			^	368
977	>			<	1,154
121	v			v	392
		<	^	>	
		180	864	305	
	S				

Vehicles per Hour per Lane

	A.M.		P.M.
N:	2,624	N:	3,278
S:	2,490	S:	3,149
E:	2,954	E:	3,601
W:	2,096	W:	2,786
N-S Road:	2,624	N-S Road:	3,278
E-W Road:	2,954	E-W Road:	3,601

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2009

Roadway Data

Intersection: Oxnard Boulevard and Gonzales Road
Analysis Condition: Existing Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Oxnard Boulevard	At Grade	6	20	20
East-West Roadway:	Gonzales Road	At Grade	6	20	20

A.M. Peak Hour Traffic Volumes

N					
	61	958	295		
W	<	v	>		E
223	^			^	353
927	>			<	733
59	v			v	268
	<	^	>		
	93	734	378		
S					

P.M. Peak Hour Traffic Volumes

N					
	112	1,287	405		
W	<	v	>		E
242	^			^	368
977	>			<	1,154
121	v			v	392
	<	^	>		
	180	864	305		
S					

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	2,624	N-S Road:	3,278
E-W Road:	2,954	E-W Road:	3,601

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	A_4	B	C				
	Reference CO Concentrations				Traffic	Emission	Estimated CO Concentrations			
Roadway	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors[2]	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	2.8	2.3	2.0	1.7	2,624	4.92	0.36	0.30	0.26	0.22
East-West Road	9.5	6.1	4.9	3.5	2,954	4.92	1.38	0.89	0.71	0.51
P.M. Peak Traffic Hour										
North-South Road	2.8	2.3	2.0	1.7	3,278	4.92	0.45	0.37	0.32	0.27
East-West Road	9.5	6.1	4.9	3.5	3,601	4.92	1.68	1.08	0.87	0.62

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	4.0	4.4	2.9
25 Feet from Roadway Edge	3.5	3.8	2.5
50 Feet from Roadway Edge	3.3	3.5	2.3
100 Feet from Roadway Edge	3.0	3.2	2.1

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

	Year	Average Speed (miles per hour) 5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 6

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 3
E-W Lanes Number: 3

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO: **X**
Background 1-hour CO Concentration (ppm): **2.3**
Background 8-hour CO Concentration (ppm): **1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Oxnard Boulevard and Gonzales Road**
Analysis Condition: **Future With Project Traffic Conditions**

North-South Roadway:
Name: **Oxnard Boulevard**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

East-West Roadway:
Name: **Gonzales Road**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

A.M. Peak Hour Traffic Volumes

	N			
	60	1,630	570	
W	<	v	>	E
300 ^			^ 390	
910 >			< 760	
80 v			v 240	
	<	^	>	
	120	1,210	260	
	S			

P.M. Peak Hour Traffic Volumes

	N			
	120	1,750	410	
W	<	v	>	E
260 ^			^ 560	
980 >			< 1,490	
160 v			v 340	
	<	^	>	
	170	1,760	310	
	S			

Vehicles per Hour per Lane

	A.M.		P.M.
N:	4,160	N:	4,860
S:	3,540	S:	4,490
E:	3,130	E:	4,090
W:	2,230	W:	3,180
N-S Road:	4,160	N-S Road:	4,860
E-W Road:	3,130	E-W Road:	4,090

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2030

Roadway Data

Intersection:	Oxnard Boulevard and Gonzales Road
Analysis Condition:	Future With Project Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Oxnard Boulevard	At Grade	6	20	15
East-West Roadway:	Gonzales Road	At Grade	6	20	15

A.M. Peak Hour Traffic Volumes

N				
	60	1,630	570	
W	<	v	>	E
300 ^			^	390
910 >			<	760
80 v			v	240
	<	^	>	
	120	1,210	260	
S				

P.M. Peak Hour Traffic Volumes

N				
	120	1,750	410	
W	<	v	>	E
260 ^			^	560
980 >			<	1,490
160 v			v	340
	<	^	>	
	170	1,760	310	
S				

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	4,160	N-S Road:	4,860
E-W Road:	3,130	E-W Road:	4,090

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	A_4	B	C				
	Reference CO Concentrations				Traffic	Emission	Estimated CO Concentrations			
Roadway	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors[2]	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	4,160	1.24	0.49	0.31	0.25	0.18
East-West Road	2.8	2.3	2.0	1.7	3,130	1.24	0.11	0.09	0.08	0.07
P.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	4,860	1.40	0.65	0.42	0.33	0.24
East-West Road	2.8	2.3	2.0	1.7	4,090	1.40	0.16	0.13	0.11	0.10

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	2.9	3.1	2.1
25 Feet from Roadway Edge	2.7	2.8	1.9
50 Feet from Roadway Edge	2.6	2.7	1.9
100 Feet from Roadway Edge	2.5	2.6	1.8

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

Average Speed (miles per hour)

	Year	5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 23

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 3
E-W Lanes Number: 3

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 3
E-W AM Number: 4
E-W PM Number: 3

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO:	**X**
Background 1-hour CO Concentration (ppm):	**2.3**
Background 8-hour CO Concentration (ppm):	**1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rose Avenue and Gonzales Road**
Analysis Condition: **Existing Traffic Conditions**

North-South Roadway:
Name: **Rose Avenue**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

East-West Roadway:
Name: **Gonzales Road**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

A.M. Peak Hour Traffic Volumes

		N			
		296	1,021	311	
W		<	v	>	E
704	^			^	137
858	>			<	342
240	v			v	79
		<	^	>	
		266	1,125	200	
		S			

P.M. Peak Hour Traffic Volumes

		N			
		616	1,477	309	
W		<	v	>	E
590	^			^	267
584	>			<	1,084
197	v			v	153
		<	^	>	
		396	1,190	102	
		S			

Vehicles per Hour per Lane

	A.M.		P.M.
N:	3,594	N:	4,449
S:	2,931	S:	3,515
E:	1,927	E:	2,499
W:	2,706	W:	3,467
N-S Road:	3,594	N-S Road:	4,449
E-W Road:	2,706	E-W Road:	3,467

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2009

Roadway Data

Intersection: Rose Avenue and Gonzales Road
Analysis Condition: Existing Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Rose Avenue	At Grade	6	20	15
East-West Roadway:	Gonzales Road	At Grade	6	20	15

A.M. Peak Hour Traffic Volumes

N				
	296	1,021	311	
W	<	v	>	E
704 ^				^ 137
858 >				< 342
240 v				v 79
	<	^	>	
	266	1,125	200	
S				

P.M. Peak Hour Traffic Volumes

N				
	616	1,477	309	
W	<	v	>	E
590 ^				^ 267
584 >				< 1,084
197 v				v 153
	<	^	>	
	396	1,190	102	
S				

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	3,594	4,449
E-W Road:	2,706	3,467

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	A_4	B	C				
	Reference CO Concentrations				Traffic	Emission	Estimated CO Concentrations			
Roadway	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors[2]	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	3,594	4.92	1.68	1.08	0.87	0.62
East-West Road	2.8	2.3	2.0	1.7	2,706	4.92	0.37	0.31	0.27	0.23
P.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	4,449	5.73	2.42	1.55	1.25	0.89
East-West Road	2.8	2.3	2.0	1.7	3,467	5.73	0.56	0.46	0.40	0.34

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	4.4	5.3	3.4
25 Feet from Roadway Edge	3.7	4.3	2.8
50 Feet from Roadway Edge	3.4	3.9	2.6
100 Feet from Roadway Edge	3.1	3.5	2.3

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

	Year	Average Speed (miles per hour) 5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 6

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 3
E-W Lanes Number: 3

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 3
E-W AM Number: 4
E-W PM Number: 3

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO:	**X**
Background 1-hour CO Concentration (ppm):	**2.3**
Background 8-hour CO Concentration (ppm):	**1.6**

Persistence Factor:
- 0.6 Rural or Suburban
- 0.7 Urban Locations
- 0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rose Avenue and Gonzales Road**
Analysis Condition: **Future With Project Traffic Conditions**

North-South Roadway:
- Name: **Rose Avenue**
- Roadway Type:
- Number of Lanes:
- Average Cruise Speed:
  - A.M. Peak:
  - P.M. Peak

East-West Roadway:
- Name: **Gonzales Road**
- Roadway Type:
- Number of Lanes:
- Average Cruise Speed:
  - A.M. Peak:
  - P.M. Peak

A.M. Peak Hour Traffic Volumes

	N				
		240	1,270	540	
W		<	v	>	E
630	^			^	250
1,290	>			<	510
460	v			v	160
		<	^	>	
		310	1,210	410	
	S				

P.M. Peak Hour Traffic Volumes

	N				
		550	1,670	250	
W		<	v	>	E
470	^			^	510
700	>			<	1,720
310	v			v	190
		<	^	>	
		390	1,510	400	
	S				

Vehicles per Hour per Lane

	A.M.		P.M.
N:	4,140	N:	4,960
S:	3,820	S:	4,470
E:	3,160	E:	3,770
W:	3,440	W:	4,140
N-S Road:	4,140	N-S Road:	4,960
E-W Road:	3,440	E-W Road:	4,140

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2030

Roadway Data

Intersection: Rose Avenue and Gonzales Road
Analysis Condition: Future With Project Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Rose Avenue	At Grade	8	20	15
East-West Roadway:	Gonzales Road	At Grade	8	20	15

A.M. Peak Hour Traffic Volumes

N					
	240	1,270	540		
W	<	v	>		E
630	^			^	250
1,290	>			<	510
460	v			v	160
	<	^	>		
	310	1,210	410		
S					

P.M. Peak Hour Traffic Volumes

N					
	550	1,670	250		
W	<	v	>		E
470	^			^	510
700	>			<	1,720
310	v			v	190
	<	^	>		
	390	1,510	400		
S					

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	4,140	4,960
E-W Road:	3,440	4,140

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations E.O.R.	A_2 Reference CO Concentrations 25 Feet	A_3 Reference CO Concentrations 50 Feet	A_4 Reference CO Concentrations 100 Feet	B Traffic Volume	C Emission Factors[2]	Estimated CO Concentrations E.O.R.	Estimated CO Concentrations 25 Feet	Estimated CO Concentrations 50 Feet	Estimated CO Concentrations 100 Feet
A.M. Peak Traffic Hour										
North-South Road	8.5	5.7	4.6	3.4	4,140	1.24	0.44	0.29	0.24	0.17
East-West Road	2.6	2.2	1.9	1.6	3,440	1.24	0.11	0.09	0.08	0.07
P.M. Peak Traffic Hour										
North-South Road	8.5	5.7	4.6	3.4	4,960	1.40	0.59	0.40	0.32	0.24
East-West Road	2.6	2.2	1.9	1.6	4,140	1.40	0.15	0.13	0.11	0.09

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	2.8	3.0	2.0
25 Feet from Roadway Edge	2.7	2.8	1.9
50 Feet from Roadway Edge	2.6	2.7	1.9
100 Feet from Roadway Edge	2.5	2.6	1.8

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

	Year	Average Speed (miles per hour) 5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 23

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 4
E-W Lanes Number: 4

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 3
E-W AM Number: 4
E-W PM Number: 3

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO:	**X**
Background 1-hour CO Concentration (ppm):	**2.3**
Background 8-hour CO Concentration (ppm):	**1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rose Avenue and Camio Del Sol**
Analysis Condition: **Existing Traffic Conditions**

North-South Roadway:
Name: **Rose Avenue**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

East-West Roadway:
Name: **Camino Del Sol**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

A.M. Peak Hour Traffic Volumes

	N				
	77	1,196	180		
W	<	v	>		E
188	^			^	91
247	>			<	148
133	v			v	150
	<	^	>		
	127	1,163	215		
	S				

P.M. Peak Hour Traffic Volumes

	N				
	263	1,248	139		
W	<	v	>		E
132	^			^	239
177	>			<	456
95	v			v	252
	<	^	>		
	97	1,236	148		
	S				

Vehicles per Hour per Lane

	A.M.		P.M.
N:	2,895	N:	3,257
S:	2,984	S:	3,076
E:	1,031	E:	1,411
W:	920	W:	1,220
N-S Road:	2,984	N-S Road:	3,257
E-W Road:	1,031	E-W Road:	1,411

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2009

Roadway Data

Intersection: Rose Avenue and Camio Del Sol
Analysis Condition: Existing Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Rose Avenue	At Grade	4	20	20
East-West Roadway:	Camino Del Sol	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

N					
		77	1,196	180	
W		<	v	>	E
188	^			^	91
247	>			<	148
133	v			v	150
		<	^	>	
		127	1,163	215	
S					

P.M. Peak Hour Traffic Volumes

N					
		263	1,248	139	
W		<	v	>	E
132	^			^	239
177	>			<	456
95	v			v	252
		<	^	>	
		97	1,236	148	
S					

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	2,984	3,257
E-W Road:	1,031	1,411

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 E.O.R.	A_2 Reference CO Concentrations 25 Feet	A_3 50 Feet	A_4 100 Feet	B Traffic Volume	C Emission Factors[2]	Estimated CO Concentrations E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	11.9	7.0	5.4	3.8	2,984	4.92	1.75	1.03	0.79	0.56
East-West Road	3.3	2.6	2.2	1.7	1,031	4.92	0.17	0.13	0.11	0.09
P.M. Peak Traffic Hour										
North-South Road	11.9	7.0	5.4	3.8	3,257	4.92	1.91	1.12	0.86	0.61
East-West Road	3.3	2.6	2.2	1.7	1,411	4.92	0.23	0.18	0.15	0.12

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	4.2	4.4	2.9
25 Feet from Roadway Edge	3.5	3.6	2.4
50 Feet from Roadway Edge	3.2	3.3	2.2
100 Feet from Roadway Edge	2.9	3.0	2.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

	Year	Average Speed (miles per hour) 5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 6

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1 At Grade
2 Depressed 15 Feet
3 Depressed 30 Feet
4 Elevated 15 Feet
5 Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 2
E-W Lanes Number: 2

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO: **X**
Background 1-hour CO Concentration (ppm): **2.3**
Background 8-hour CO Concentration (ppm): **1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rose Avenue and Camio Del Sol**
Analysis Condition: **Future With Project Traffic Conditions**

North-South Roadway:
Name: **Rose Avenue**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

East-West Roadway:
Name: **Camino Del Sol**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

A.M. Peak Hour Traffic Volumes

	N				
	140	1,670	380		
W	<	v	>	E	
220	^			^	150
520	>			<	130
190	v			v	170
	<	^	>		
	170	1,480	130		
	S				

P.M. Peak Hour Traffic Volumes

	N				
	130	1,670	120		
W	<	v	>	E	
210	^			^	440
210	>			<	730
80	v			v	410
	<	^	>		
	160	1,680	60		
	S				

Vehicles per Hour per Lane

	A.M.		P.M.
N:	4,040	N:	4,250
S:	3,810	S:	4,060
E:	1,480	E:	1,970
W:	1,370	W:	1,520
N-S Road:	4,040	N-S Road:	4,250
E-W Road:	1,480	E-W Road:	1,970

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2030

Roadway Data

Intersection:	Rose Avenue and Camio Del Sol
Analysis Condition:	Future With Project Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Rose Avenue	At Grade	6	20	20
East-West Roadway:	Camino Del Sol	At Grade	6	20	20

A.M. Peak Hour Traffic Volumes

N				
	140	1,670	380	
W	<	v	>	E
220 ^			^	150
520 >			<	130
190 v			v	170
	<	^	>	
	170	1,480	130	
S				

P.M. Peak Hour Traffic Volumes

N				
	130	1,670	120	
W	<	v	>	E
210 ^			^	440
210 >			<	730
80 v			v	410
	<	^	>	
	160	1,680	60	
S				

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	4,040	N-S Road:	4,250
E-W Road:	1,480	E-W Road:	1,970

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	A_4	B	C				
	Reference CO Concentrations				Traffic	Emission	Estimated CO Concentrations			
Roadway	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors[2]	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	4,040	1.24	0.48	0.31	0.25	0.18
East-West Road	2.8	2.3	2.0	1.7	1,480	1.24	0.05	0.04	0.04	0.03
P.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	4,250	1.24	0.50	0.32	0.26	0.18
East-West Road	2.8	2.3	2.0	1.7	1,970	1.24	0.07	0.06	0.05	0.04

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	2.8	2.9	1.9
25 Feet from Roadway Edge	2.6	2.7	1.8
50 Feet from Roadway Edge	2.6	2.6	1.8
100 Feet from Roadway Edge	2.5	2.5	1.7

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

Average Speed (miles per hour)

	Year	5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 23

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 3
E-W Lanes Number: 3

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO:	**X**
Background 1-hour CO Concentration (ppm):	**2.3**
Background 8-hour CO Concentration (ppm):	**1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rose Avenue and Fifth Street**
Analysis Condition: **Existing Traffic Conditions**

North-South Roadway:
Name: **Rose Avenue**
Roadway Type:
Number of Lanes:
Average Cruise Speed:
A.M. Peak:
P.M. Peak

East-West Roadway:
Name: **Fifth Street**
Roadway Type:
Number of Lanes:
Average Cruise Speed:
A.M. Peak:
P.M. Peak

A.M. Peak Hour Traffic Volumes

	N				
		148	1,164	41	
W		<	v	>	E
231	^			^	26
440	>			<	259
31	v			v	133
		<	^	>	
		17	1,175	97	
	S				

P.M. Peak Hour Traffic Volumes

	N				
		208	1,266	31	
W		<	v	>	E
332	^			^	69
318	>			<	567
40	v			v	216
		<	^	>	
		20	1,221	52	
	S				

Vehicles per Hour per Lane

	A.M.		P.M.
N:	2,785	N:	3,127
S:	2,617	S:	2,815
E:	996	E:	1,253
W:	1,126	W:	1,485
N-S Road:	2,785	N-S Road:	3,127
E-W Road:	1,126	E-W Road:	1,485

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2009

Roadway Data

Intersection:	Rose Avenue and Fifth Street
Analysis Condition:	Existing Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Rose Avenue	At Grade	6	20	20
East-West Roadway:	Fifth Street	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

	N				
		148	1,164	41	
W		<	v	>	E
231	^			^	26
440	>			<	259
31	v			v	133
		<	^	>	
		17	1,175	97	
	S				

P.M. Peak Hour Traffic Volumes

	N				
		208	1,266	31	
W		<	v	>	E
332	^			^	69
318	>			<	567
40	v			v	216
		<	^	>	
		20	1,221	52	
	S				

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	2,785	N-S Road:	3,127
E-W Road:	1,126	E-W Road:	1,485

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 E.O.R.	A_2 Reference CO Concentrations 25 Feet	A_3 50 Feet	A_4 100 Feet	B Traffic Volume	C Emission Factors[2]	Estimated CO Concentrations E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	2,785	4.92	1.30	0.84	0.67	0.48
East-West Road	3.3	2.6	2.2	1.7	1,126	4.92	0.18	0.14	0.12	0.09
P.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	3,127	4.92	1.46	0.94	0.75	0.54
East-West Road	3.3	2.6	2.2	1.7	1,485	4.92	0.24	0.19	0.16	0.12

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	3.8	4.0	2.6
25 Feet from Roadway Edge	3.3	3.4	2.3
50 Feet from Roadway Edge	3.1	3.2	2.1
100 Feet from Roadway Edge	2.9	3.0	2.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type		Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade													
2 lane		14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane		11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane		9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane		8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet													
2 lane		20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane		15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet													
2 lane		26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane		21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet													
2 lane		14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane		8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet													
	2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
	8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions													
N-S Road		9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
	2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
	4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
	6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
	8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road		11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
	2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
	4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
	6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
	8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

	Year	Average Speed (miles per hour) 5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 6

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 3
E-W Lanes Number: 2

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO: **X**
Background 1-hour CO Concentration (ppm): **2.3**
Background 8-hour CO Concentration (ppm): **1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rose Avenue and Fifth Street**
Analysis Condition: **Future With Project Traffic Conditions**

North-South Roadway:
Name: **Rose Avenue**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

East-West Roadway:
Name: **Fifth Street**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

A.M. Peak Hour Traffic Volumes

	N				
	160	1,760	20		
W	<	v	>	E	
220	^		^	10	
760	>		<	240	
60	v		v	190	
	<	^	>		
	10	1,380	400		
	S				

P.M. Peak Hour Traffic Volumes

	N				
	220	1,760	20		
W	<	v	>	E	
330	^		^	160	
560	>		<	820	
100	v		v	550	
	<	^	>		
	80	1,650	120		
	S				

Vehicles per Hour per Lane

	A.M.		P.M.
N:	3,550	N:	4,140
S:	3,800	S:	4,260
E:	1,620	E:	2,230
W:	1,450	W:	2,110
N-S Road:	3,800	N-S Road:	4,260
E-W Road:	1,620	E-W Road:	2,230

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2030

Roadway Data

Intersection: Rose Avenue and Fifth Street
Analysis Condition: Future With Project Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Rose Avenue	At Grade	6	20	20
East-West Roadway:	Fifth Street	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

N					
	160	1,760	20		
W	<	v	>		E
220 ^				^	10
760 >				<	240
60 v				v	190
	<	^	>		
	10	1,380	400		
S					

P.M. Peak Hour Traffic Volumes

N					
	220	1,760	20		
W	<	v	>		E
330 ^				^	160
560 >				<	820
100 v				v	550
	<	^	>		
	80	1,650	120		
S					

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	3,800	N-S Road:	4,260
E-W Road:	1,620	E-W Road:	2,230

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 Reference CO Concentrations E.O.R.	A_2 25 Feet	A_3 50 Feet	A_4 100 Feet	B Traffic Volume	C Emission Factors[2]	Estimated CO Concentrations E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	3,800	1.24	0.45	0.29	0.23	0.16
East-West Road	3.3	2.6	2.2	1.7	1,620	1.24	0.07	0.05	0.04	0.03
P.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	4,260	1.24	0.50	0.32	0.26	0.18
East-West Road	3.3	2.6	2.2	1.7	2,230	1.24	0.09	0.07	0.06	0.05

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	2.8	2.9	2.0
25 Feet from Roadway Edge	2.6	2.7	1.8
50 Feet from Roadway Edge	2.6	2.6	1.8
100 Feet from Roadway Edge	2.5	2.5	1.7

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

	Year	Average Speed (miles per hour) 5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 23

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 3
E-W Lanes Number: 2

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO:	**X**
Background 1-hour CO Concentration (ppm):	**2.3**
Background 8-hour CO Concentration (ppm):	**1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rose Avenue and Oxnard Boulevard**
Analysis Condition: **Existing Traffic Conditions**

North-South Roadway:
Name: **Rose Avenue**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

East-West Roadway:
Name: **Oxnard Boulevard**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

A.M. Peak Hour Traffic Volumes

	N			
	28	599	35	
W	<	v	>	E
0	^		^	74
307	>		<	250
204	v		v	0
	<	^	>	
	150	771	33	
	S			

P.M. Peak Hour Traffic Volumes

	N			
	48	1,025	58	
W	<	v	>	E
0	^		^	84
201	>		<	729
322	v		v	0
	<	^	>	
	149	752	23	
	S			

Vehicles per Hour per Lane

	A.M.		P.M.
N:	1,507	N:	1,967
S:	1,757	S:	2,271
E:	699	E:	1,095
W:	939	W:	1,449
N-S Road:	1,757	N-S Road:	2,271
E-W Road:	939	E-W Road:	1,449

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2009

Roadway Data

Intersection: Rose Avenue and Oxnard Boulevard
Analysis Condition: Existing Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Rose Avenue	At Grade	4	20	20
East-West Roadway:	Oxnard Boulevard	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

N					
	28	599	35		
W	<	v	>		E
0	^			^	74
307	>			<	250
204	v			v	0
	<	^	>		
	150	771	33		
S					

P.M. Peak Hour Traffic Volumes

N					
	48	1,025	58		
W	<	v	>		E
0	^			^	84
201	>			<	729
322	v			v	0
	<	^	>		
	149	752	23		
S					

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,757	N-S Road:	2,271
E-W Road:	939	E-W Road:	1,449

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	A_4	B	C				
	Reference CO Concentrations				Traffic	Emission	Estimated CO Concentrations			
Roadway	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors[2]	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	11.9	7.0	5.4	3.8	1,757	4.92	1.03	0.60	0.47	0.33
East-West Road	3.3	2.6	2.2	1.7	939	4.92	0.15	0.12	0.10	0.08
P.M. Peak Traffic Hour										
North-South Road	11.9	7.0	5.4	3.8	2,271	4.92	1.33	0.78	0.60	0.42
East-West Road	3.3	2.6	2.2	1.7	1,449	4.92	0.24	0.19	0.16	0.12

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	3.5	3.9	2.5
25 Feet from Roadway Edge	3.0	3.3	2.2
50 Feet from Roadway Edge	2.9	3.1	2.1
100 Feet from Roadway Edge	2.7	2.8	1.9

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

	Year	Average Speed (miles per hour) 5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 6

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 2
E-W Lanes Number: 2

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO:	**X**
Background 1-hour CO Concentration (ppm):	**2.3**
Background 8-hour CO Concentration (ppm):	**1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rose Avenue and Oxnard Boulevard**
Analysis Condition: **Future With Project Traffic Conditions**

North-South Roadway:
Name: **Rose Avenue**
Roadway Type:
Number of Lanes:
Average Cruise Speed:
A.M. Peak:
P.M. Peak

East-West Roadway:
Name: **Oxnard Boulevard**
Roadway Type:
Number of Lanes:
Average Cruise Speed:
A.M. Peak:
P.M. Peak

A.M. Peak Hour Traffic Volumes

	N				
		40	1,240	100	
W		<	v	>	E
0	^			^	70
240	>			<	120
190	v			v	0
		<	^	>	
		190	1,280	10	
	S				

P.M. Peak Hour Traffic Volumes

	N				
		60	1,380	100	
W		<	v	>	E
0	^			^	100
150	>			<	450
60	v			v	0
		<	^	>	
		390	1,250	0	
	S				

Vehicles per Hour per Lane

	A.M.		P.M.
N:	2,730	N:	2,890
S:	2,910	S:	3,080
E:	540	E:	800
W:	780	W:	1,110
N-S Road:	2,910	N-S Road:	3,080
E-W Road:	780	E-W Road:	1,110

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2030

Roadway Data

Intersection: Rose Avenue and Oxnard Boulevard
Analysis Condition: Future With Project Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Rose Avenue	At Grade	6	20	20
East-West Roadway:	Oxnard Boulevard	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

N	40 <	1,240 v	100 >	
W				E
0 ^				^ 70
240 >				< 120
190 v				v 0
	< 190	^ 1,280	> 10	
S				

P.M. Peak Hour Traffic Volumes

N	60 <	1,380 v	100 >	
W				E
0 ^				^ 100
150 >				< 450
60 v				v 0
	< 390	^ 1,250	> 0	
S				

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	2,910	N-S Road:	3,080
E-W Road:	780	E-W Road:	1,110

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	A_4	B	C				
	Reference CO Concentrations				Traffic	Emission	Estimated CO Concentrations			
Roadway	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors[2]	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	2,910	1.24	0.34	0.22	0.18	0.13
East-West Road	3.3	2.6	2.2	1.7	780	1.24	0.03	0.03	0.02	0.02
P.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	3,080	1.24	0.36	0.23	0.19	0.13
East-West Road	3.3	2.6	2.2	1.7	1,110	1.24	0.05	0.04	0.03	0.02

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	2.7	2.7	1.8
25 Feet from Roadway Edge	2.5	2.6	1.8
50 Feet from Roadway Edge	2.5	2.5	1.7
100 Feet from Roadway Edge	2.4	2.5	1.7

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

	Year	Average Speed (miles per hour) 5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 23

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 3
E-W Lanes Number: 2

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO: **X**
Background 1-hour CO Concentration (ppm): **2.3**
Background 8-hour CO Concentration (ppm): **1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rose Avenue and Channel Islands Boulevard**
Analysis Condition: **Existing Traffic Conditions**

North-South Roadway:
Name: **Rose Avenue**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

East-West Roadway:
Name: **Channel Islands Boulevard**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

A.M. Peak Hour Traffic Volumes

	N				
		137	527	108	
W		<	v	>	E
374	^			^	4
647	>			<	279
190	v			v	153
		<	^	>	
		149	635	98	
	S				

P.M. Peak Hour Traffic Volumes

	N				
		335	96	195	
W		<	v	>	E
460	^			^	8
390	>			<	762
186	v			v	276
		<	^	>	
		262	53	9	
	S				

Vehicles per Hour per Lane

	A.M.	P.M.
N:	1,785	1,147
S:	1,752	882
E:	1,289	1,640
W:	1,776	2,395
N-S Road:	1,785	1,147
E-W Road:	1,776	2,395

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2009

Roadway Data

Intersection: Rose Avenue and Channel Islands Boulevard
Analysis Condition: Existing Traffic Conditions

			No. of	Average Speed	
		Roadway Type	Lanes	A.M.	P.M.
North-South Roadway:	Rose Avenue	At Grade	6	20	20
East-West Roadway:	Channel Islands Boulevard	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

	N				
		137	527	108	
W		<	v	>	E
374	^			^	4
647	>			<	279
190	v			v	153
		<	^	>	
		149	635	98	
	S				

P.M. Peak Hour Traffic Volumes

	N				
		335	96	195	
W		<	v	>	E
460	^			^	8
390	>			<	762
186	v			v	276
		<	^	>	
		262	53	9	
	S				

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,785	N-S Road:	1,147
E-W Road:	1,776	E-W Road:	2,395

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	A_4	B	C				
	Reference CO Concentrations				Traffic	Emission	Estimated CO Concentrations			
Roadway	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors[2]	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	1,785	4.92	0.83	0.54	0.43	0.31
East-West Road	3.3	2.6	2.2	1.7	1,776	4.92	0.29	0.23	0.19	0.15
P.M. Peak Traffic Hour										
North-South Road	2.8	2.3	2.0	1.7	1,147	4.92	0.16	0.13	0.11	0.10
East-West Road	11.9	7.0	5.4	3.8	2,395	4.92	1.40	0.82	0.64	0.45

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	3.4	3.9	2.5
25 Feet from Roadway Edge	3.1	3.3	2.2
50 Feet from Roadway Edge	2.9	3.0	2.0
100 Feet from Roadway Edge	2.8	2.8	1.9

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

		Average Speed (miles per hour)											
	Year	5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 6

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 3
E-W Lanes Number: 2

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO: **X**
Background 1-hour CO Concentration (ppm): **2.3**
Background 8-hour CO Concentration (ppm): **1.6**

Persistence Factor: 0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rose Avenue and Channel Islands Boulevard**
Analysis Condition: **Future With Project Traffic Conditions**

North-South Roadway:
Name: **Rose Avenue**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

East-West Roadway:
Name: **Channel Islands Boulevard**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

A.M. Peak Hour Traffic Volumes

	N			
	170	1,550	70	
W	<	v	>	E
440 ^			^	10
530 >			<	480
250 v			v	350
	<	^	>	
	280	1,130	310	
	S			

P.M. Peak Hour Traffic Volumes

	N			
	270	1,390	140	
W	<	v	>	E
240 ^			^	10
490 >			<	880
210 v			v	410
	<	^	>	
	430	1,410	200	
	S			

Vehicles per Hour per Lane

	A.M.		P.M.
N:	3,370	N:	3,460
S:	3,870	S:	4,050
E:	1,750	E:	2,130
W:	2,150	W:	2,520
N-S Road:	3,870	N-S Road:	4,050
E-W Road:	2,150	E-W Road:	2,520

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2030

Roadway Data

Intersection: Rose Avenue and Channel Islands Boulevard
Analysis Condition: Future With Project Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Rose Avenue	At Grade	6	20	20
East-West Roadway:	Channel Islands Boulevard	At Grade	6	20	20

A.M. Peak Hour Traffic Volumes

N					
	170	1,550	70		
W	<	v	>		E
440	^			^	10
530	>			<	480
250	v			v	350
	<	^	>		
	280	1,130	310		
S					

P.M. Peak Hour Traffic Volumes

N					
	270	1,390	140		
W	<	v	>		E
240	^			^	10
490	>			<	880
210	v			v	410
	<	^	>		
	430	1,410	200		
S					

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	3,870	4,050
E-W Road:	2,150	2,520

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	A_4	B	C				
	Reference CO Concentrations				Traffic	Emission	Estimated CO Concentrations			
Roadway	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors[2]	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	3,870	1.24	0.46	0.29	0.24	0.17
East-West Road	2.8	2.3	2.0	1.7	2,150	1.24	0.07	0.06	0.05	0.05
P.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	4,050	1.24	0.48	0.31	0.25	0.18
East-West Road	2.8	2.3	2.0	1.7	2,520	1.24	0.09	0.07	0.06	0.05

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	2.8	2.9	1.9
25 Feet from Roadway Edge	2.7	2.7	1.8
50 Feet from Roadway Edge	2.6	2.6	1.8
100 Feet from Roadway Edge	2.5	2.5	1.7

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

	Year	Average Speed (miles per hour) 5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 23

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 3
E-W Lanes Number: 3

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO:	**X**
Background 1-hour CO Concentration (ppm):	**2.3**
Background 8-hour CO Concentration (ppm):	**1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rose Avenue and Bard Road**
Analysis Condition: **Existing Traffic Conditions**

North-South Roadway:
Name: **Rose Avenue**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

East-West Roadway:
Name: **Bard Road**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

A.M. Peak Hour Traffic Volumes

	N					
		153	376	197		
W		<	v	>		E
237	^				^	173
220	>				<	118
29	v				v	7
		<	^	>		
		29	615	20		
	S					

P.M. Peak Hour Traffic Volumes

	N					
		300	509	70		
W		<	v	>		E
170	^				^	142
145	>				<	348
42	v				v	14
		<	^	>		
		47	305	18		
	S					

Vehicles per Hour per Lane

	A.M.		P.M.
N:	1,751	N:	1,496
S:	1,076	S:	935
E:	735	E:	737
W:	786	W:	1,052
N-S Road:	1,751	N-S Road:	1,496
E-W Road:	786	E-W Road:	1,052

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2009

Roadway Data

Intersection: Rose Avenue and Bard Road
Analysis Condition: Existing Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Rose Avenue	At Grade	4	20	20
East-West Roadway:	Bard Road	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

N					
	153	376	197		
W	<	v	>		E
237 ^				^	173
220 >				<	118
29 v				v	7
	<	^	>		
	29	615	20		
S					

P.M. Peak Hour Traffic Volumes

N					
	300	509	70		
W	<	v	>		E
170 ^				^	142
145 >				<	348
42 v				v	14
	<	^	>		
	47	305	18		
S					

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,751	N-S Road:	1,496
E-W Road:	786	E-W Road:	1,052

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 E.O.R.	A_2 Reference CO Concentrations 25 Feet	A_3 50 Feet	A_4 100 Feet	B Traffic Volume	C Emission Factors[2]	Estimated CO Concentrations E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	11.9	7.0	5.4	3.8	1,751	4.92	1.02	0.60	0.46	0.33
East-West Road	3.3	2.6	2.2	1.7	786	4.92	0.13	0.10	0.09	0.07
P.M. Peak Traffic Hour										
North-South Road	11.9	7.0	5.4	3.8	1,496	4.92	0.88	0.51	0.40	0.28
East-West Road	3.3	2.6	2.2	1.7	1,052	4.92	0.17	0.13	0.11	0.09

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	3.5	3.3	2.3
25 Feet from Roadway Edge	3.0	2.9	2.0
50 Feet from Roadway Edge	2.8	2.8	1.9
100 Feet from Roadway Edge	2.7	2.7	1.8

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

	Year	Average Speed (miles per hour) 5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 6

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 2
E-W Lanes Number: 2

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO: **X**
Background 1-hour CO Concentration (ppm): **2.3**
Background 8-hour CO Concentration (ppm): **1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rose Avenue and Bard Road**
Analysis Condition: **Future With Project Traffic Conditions**

North-South Roadway:
Name: **Rose Avenue**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

East-West Roadway:
Name: **Bard Road**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

A.M. Peak Hour Traffic Volumes

	N					
		140	1,810	140		
W		<	v	>		E
260	^				^	180
170	>				<	170
70	v				v	40
		<	^	>		
		70	1,420	10		
	S					

P.M. Peak Hour Traffic Volumes

	N					
		470	1,120	150		
W		<	v	>		E
200	^				^	190
250	>				<	410
100	v				v	20
		<	^	>		
		120	1,570	30		
	S					

Vehicles per Hour per Lane

	A.M.		P.M.
N:	3,950	N:	3,700
S:	3,420	S:	2,960
E:	710	E:	1,050
W:	880	W:	1,550
N-S Road:	3,950	N-S Road:	3,700
E-W Road:	880	E-W Road:	1,550

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2030

Roadway Data

Intersection: Rose Avenue and Bard Road
Analysis Condition: Future With Project Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Rose Avenue	At Grade	6	20	20
East-West Roadway:	Bard Road	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

N				
	140	1,810	140	
W	<	v	>	E
260 ^			^	180
170 >			<	170
70 v			v	40
	<	^	>	
	70	1,420	10	
S				

P.M. Peak Hour Traffic Volumes

N				
	470	1,120	150	
W	<	v	>	E
200 ^			^	190
250 >			<	410
100 v			v	20
	<	^	>	
	120	1,570	30	
S				

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	3,950	3,700
E-W Road:	880	1,550

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	A_4	B	C				
	Reference CO Concentrations				Traffic	Emission	Estimated CO Concentrations			
Roadway	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors[2]	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	3,950	1.24	0.47	0.30	0.24	0.17
East-West Road	3.3	2.6	2.2	1.7	880	1.24	0.04	0.03	0.02	0.02
P.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	3,700	1.24	0.44	0.28	0.22	0.16
East-West Road	3.3	2.6	2.2	1.7	1,550	1.24	0.06	0.05	0.04	0.03

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	2.8	2.8	1.9
25 Feet from Roadway Edge	2.6	2.6	1.8
50 Feet from Roadway Edge	2.6	2.6	1.8
100 Feet from Roadway Edge	2.5	2.5	1.7

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type		Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade													
	2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
	4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
	6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
	8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet													
	2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
	8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet													
	2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
	8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet													
	2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
	8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet													
	2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
	8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions													
N-S Road		9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
	2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
	4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
	6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
	8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road		11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
	2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
	4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
	6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
	8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

	Year	Average Speed (miles per hour) 5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 23

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 3
E-W Lanes Number: 2

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO:	**X**
Background 1-hour CO Concentration (ppm):	**2.3**
Background 8-hour CO Concentration (ppm):	**1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rice Avenue and Camino Del Sol**
Analysis Condition: **Existing Traffic Conditions**

North-South Roadway:
Name: **Rice Avenue**
Roadway Type:
Number of Lanes:
Average Cruise Speed:
A.M. Peak:
P.M. Peak

East-West Roadway:
Name: **Camino Del Sol**
Roadway Type:
Number of Lanes:
Average Cruise Speed:
A.M. Peak:
P.M. Peak

A.M. Peak Hour Traffic Volumes

N				
	97	1,031	207	
W	<	v	>	E
119	^		^	55
207	>		<	127
74	v		v	44
	<	^	>	
	102	840	88	
S				

P.M. Peak Hour Traffic Volumes

N				
	233	1,103	66	
W	<	v	>	E
112	^		^	189
182	>		<	356
60	v		v	83
	<	^	>	
	211	1,164	40	
S				

Vehicles per Hour per Lane

	A.M.		P.M.
N:	2,349	N:	2,867
S:	2,179	S:	2,661
E:	728	E:	916
W:	726	W:	1,154
N-S Road:	2,349	N-S Road:	2,867
E-W Road:	728	E-W Road:	1,154

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2009

Roadway Data

Intersection: Rice Avenue and Camino Del Sol
Analysis Condition: Existing Traffic Conditions

			No. of	Average Speed	
		Roadway Type	Lanes	A.M.	P.M.
North-South Roadway:	Rice Avenue	At Grade	6	20	20
East-West Roadway:	Camino Del Sol	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes

N					
		97	1,031	207	
W		<	v	>	E
119	^			^	55
207	>			<	127
74	v			v	44
		<	^	>	
		102	840	88	
S					

P.M. Peak Hour Traffic Volumes

N					
		233	1,103	66	
W		<	v	>	E
112	^			^	189
182	>			<	356
60	v			v	83
		<	^	>	
		211	1,164	40	
S					

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	2,349	2,867
E-W Road:	728	1,154

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	A_4	B	C				
	Reference CO Concentrations				Traffic	Emission	Estimated CO Concentrations			
Roadway	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors[2]	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	2,349	4.92	1.10	0.70	0.57	0.40
East-West Road	3.3	2.6	2.2	1.7	728	4.92	0.12	0.09	0.08	0.06
P.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	2,867	4.92	1.34	0.86	0.69	0.49
East-West Road	3.3	2.6	2.2	1.7	1,154	4.92	0.19	0.15	0.12	0.10

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	3.5	3.8	2.5
25 Feet from Roadway Edge	3.1	3.3	2.2
50 Feet from Roadway Edge	2.9	3.1	2.1
100 Feet from Roadway Edge	2.8	2.9	2.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

	Year	Average Speed (miles per hour) 5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 6

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 3
E-W Lanes Number: 2

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO: **X**
Background 1-hour CO Concentration (ppm): **2.3**
Background 8-hour CO Concentration (ppm): **1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rice Avenue and Camino Del Sol**
Analysis Condition: **Future With Project Traffic Conditions**

North-South Roadway:
Name: **Rice Avenue**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

East-West Roadway:
Name: **Camino Del Sol**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

A.M. Peak Hour Traffic Volumes

	N				
		570	1,530	170	
W		<	v	>	E
500	^			^	220
240	>			<	40
10	v			v	10
		<	^	>	
		60	2,220	10	
	S				

P.M. Peak Hour Traffic Volumes

	N				
		370	2,450	360	
W		<	v	>	E
430	^			^	40
340	>			<	110
60	v			v	10
		<	^	>	
		40	1,960	50	
	S				

Vehicles per Hour per Lane

	A.M.		P.M.
N:	5,210	N:	5,610
S:	3,840	S:	4,570
E:	690	E:	910
W:	1,420	W:	1,350
N-S Road:	5,210	N-S Road:	5,610
E-W Road:	1,420	E-W Road:	1,350

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2030

Roadway Data

Intersection:	Rice Avenue and Camino Del Sol
Analysis Condition:	Future With Project Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Rice Avenue	At Grade	6	20	20
East-West Roadway:	Camino Del Sol	At Grade	6	20	20

A.M. Peak Hour Traffic Volumes

N						
		570	1,530	170		
W		<	v	>		E
500	^				^	220
240	>				<	40
10	v				v	10
		<	^	>		
		60	2,220	10		
S						

P.M. Peak Hour Traffic Volumes

N						
		370	2,450	360		
W		<	v	>		E
430	^				^	40
340	>				<	110
60	v				v	10
		<	^	>		
		40	1,960	50		
S						

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	5,210	N-S Road:	5,610
E-W Road:	1,420	E-W Road:	1,350

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	A_4	B	C				
	Reference CO Concentrations				Traffic	Emission	Estimated CO Concentrations			
Roadway	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors[2]	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	5,210	1.24	0.61	0.39	0.32	0.23
East-West Road	2.8	2.3	2.0	1.7	1,420	1.24	0.05	0.04	0.04	0.03
P.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	5,610	1.24	0.66	0.42	0.34	0.24
East-West Road	2.8	2.3	2.0	1.7	1,350	1.24	0.05	0.04	0.03	0.03

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	3.0	3.0	2.0
25 Feet from Roadway Edge	2.7	2.8	1.9
50 Feet from Roadway Edge	2.7	2.7	1.8
100 Feet from Roadway Edge	2.6	2.6	1.8

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type		Primary Road (Highest Volume Road)						Secondary Road (Intersecting Road)					
		At Edge	25'	50'	100'	300'	500'	At Edge	25'	50'	100'	300'	500'
At Grade													
	2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
	4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
	6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
	8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet													
	2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
	8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet													
	2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
	8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet													
	2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
	8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet													
	2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
	8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9

Project Assumptions													
N-S Road		9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
	2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
	4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
	6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
	8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road		9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
	2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
	4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
	6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
	8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

		Average Speed (miles per hour)											
	Year	5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 23

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 3
E-W Lanes Number: 3

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO:	**X**
Background 1-hour CO Concentration (ppm):	**2.3**
Background 8-hour CO Concentration (ppm):	**1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rice Avenue and Wooley Road**
Analysis Condition: **Existing Traffic Conditions**

North-South Roadway:
Name: **Rice Avenue**
Roadway Type:
Number of Lanes:
Average Cruise Speed:
A.M. Peak:
P.M. Peak

East-West Roadway:
Name: **Wooley Road**
Roadway Type:
Number of Lanes:
Average Cruise Speed:
A.M. Peak:
P.M. Peak

A.M. Peak Hour Traffic Volumes

		<	v	>		
	N	187	841	0		
W						E
422	^				^	0
0	>				<	0
33	v				v	0
		<	^	>		
	S	25	1,133	0		

P.M. Peak Hour Traffic Volumes

		<	v	>		
	N	357	1,366	0		
W						E
339	^				^	0
0	>				<	0
13	v				v	0
		<	^	>		
	S	85	1,053	0		

Vehicles per Hour per Lane

	A.M.		P.M.
N:	2,583	N:	3,115
S:	2,032	S:	2,517
E:	0	E:	0
W:	667	W:	794
N-S Road:	2,583	N-S Road:	3,115
E-W Road:	667	E-W Road:	794

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2009

Roadway Data

Intersection: Rice Avenue and Wooley Road
Analysis Condition: Existing Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Rice Avenue	At Grade	4	20	20
East-West Roadway:	Wooley Road	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes

	N				
		187	841	0	
W		<	v	>	E
422	^			^	0
0	>			<	0
33	v			v	0
		<	^	>	
		25	1,133	0	
	S				

P.M. Peak Hour Traffic Volumes

	N				
		357	1,366	0	
W		<	v	>	E
339	^			^	0
0	>			<	0
13	v			v	0
		<	^	>	
		85	1,053	0	
	S				

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	2,583	N-S Road:	3,115
E-W Road:	667	E-W Road:	794

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 E.O.R.	A_2 Reference CO Concentrations 25 Feet	A_3 50 Feet	A_4 100 Feet	B Traffic Volume	C Emission Factors[2]	Estimated CO Concentrations E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	11.9	7.0	5.4	3.8	2,583	4.92	1.51	0.89	0.69	0.48
East-West Road	3.7	2.7	2.2	1.7	667	4.92	0.12	0.09	0.07	0.06
P.M. Peak Traffic Hour										
North-South Road	11.9	7.0	5.4	3.8	3,115	4.92	1.82	1.07	0.83	0.58
East-West Road	3.7	2.7	2.2	1.7	794	4.92	0.14	0.11	0.09	0.07

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	3.9	4.3	2.8
25 Feet from Roadway Edge	3.3	3.5	2.3
50 Feet from Roadway Edge	3.1	3.2	2.1
100 Feet from Roadway Edge	2.8	2.9	2.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

	Year	Average Speed (miles per hour) 5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 6

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 2
E-W Lanes Number: 1

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO:	**X**
Background 1-hour CO Concentration (ppm):	**2.3**
Background 8-hour CO Concentration (ppm):	**1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rice Avenue and Wooley Road**
Analysis Condition: **Future With Project Traffic Conditions**

North-South Roadway:
Name: **Rice Avenue**
Roadway Type:
Number of Lanes:
Average Cruise Speed:
A.M. Peak:
P.M. Peak

East-West Roadway:
Name: **Wooley Road**
Roadway Type:
Number of Lanes:
Average Cruise Speed:
A.M. Peak:
P.M. Peak

A.M. Peak Hour Traffic Volumes

	N				
		370	1,270	0	
W		<	v	>	E
740	^			^	0
0	>			<	0
90	v			v	0
		<	^	>	
		60	1,590	0	
	S				

P.M. Peak Hour Traffic Volumes

	N				
		590	2,250	0	
W		<	v	>	E
650	^			^	0
0	>			<	0
110	v			v	0
		<	^	>	
		100	1,720	0	
	S				

Vehicles per Hour per Lane

	A.M.		P.M.
N:	3,970	N:	5,210
S:	3,010	S:	4,180
E:	0	E:	0
W:	1,260	W:	1,450
N-S Road:	3,970	N-S Road:	5,210
E-W Road:	1,260	E-W Road:	1,450

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2030

Roadway Data

Intersection: Rice Avenue and Wooley Road
Analysis Condition: Future With Project Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Rice Avenue	At Grade	6	20	20
East-West Roadway:	Wooley Road	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes

N					
	370	1,270	0		
W	<	v	>		E
740	^			^	0
0	>			<	0
90	v			v	0
	<	^	>		
	60	1,590	0		
S					

P.M. Peak Hour Traffic Volumes

N					
	590	2,250	0		
W	<	v	>		E
650	^			^	0
0	>			<	0
110	v			v	0
	<	^	>		
	100	1,720	0		
S					

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	3,970	N-S Road:	5,210
E-W Road:	1,260	E-W Road:	1,450

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	A_4	B	C				
		Reference CO Concentrations			Traffic	Emission	Estimated CO Concentrations			
Roadway	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors[2]	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	3,970	1.24	0.47	0.30	0.24	0.17
East-West Road	3.7	2.7	2.2	1.7	1,260	1.24	0.06	0.04	0.03	0.03
P.M. Peak Traffic Hour										
North-South Road	9.5	6.1	4.9	3.5	5,210	1.24	0.61	0.39	0.32	0.23
East-West Road	3.7	2.7	2.2	1.7	1,450	1.24	0.07	0.05	0.04	0.03

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	2.8	3.0	2.0
25 Feet from Roadway Edge	2.6	2.7	1.9
50 Feet from Roadway Edge	2.6	2.7	1.8
100 Feet from Roadway Edge	2.5	2.6	1.8

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

Average Speed (miles per hour)

	Year	5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 23

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 3
E-W Lanes Number: 1

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO:	**X**
Background 1-hour CO Concentration (ppm):	**2.3**
Background 8-hour CO Concentration (ppm):	**1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rice Avenue and Channel Islands Boulevard**
Analysis Condition: **Existing Traffic Conditions**

North-South Roadway:
Name: **Rice Avenue**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

East-West Roadway:
Name: **Channel Islands Boulevard**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

A.M. Peak Hour Traffic Volumes

		N			
		169	656	0	
W		<	v	>	E
467	^			^	0
0	>			<	0
123	v			v	0
		<	^	>	
		82	561	0	
		S			

P.M. Peak Hour Traffic Volumes

		N			
		677	857	0	
W		<	v	>	E
174	^			^	0
0	>			<	0
22	v			v	0
		<	^	>	
		350	944	0	
		S			

Vehicles per Hour per Lane

	A.M.		P.M.
N:	1,853	N:	2,652
S:	1,422	S:	2,173
E:	0	E:	0
W:	841	W:	1,223
N-S Road:	1,853	N-S Road:	2,652
E-W Road:	841	E-W Road:	1,223

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2009

Roadway Data

Intersection:	Rice Avenue and Channel Islands Boulevard
Analysis Condition:	Existing Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Rice Avenue	At Grade	4	20	20
East-West Roadway:	Channel Islands Boulevard	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes

N					
	169	656	0		
W	<	v	>		E
467 ^				^	0
0 >				<	0
123 v				v	0
	<	^	>		
	82	561	0		
S					

P.M. Peak Hour Traffic Volumes

N					
	677	857	0		
W	<	v	>		E
174 ^				^	0
0 >				<	0
22 v				v	0
	<	^	>		
	350	944	0		
S					

Highest Traffic Volumes (Vehicles per Hour)

	A.M.		P.M.
N-S Road:	1,853	N-S Road:	2,652
E-W Road:	841	E-W Road:	1,223

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

Roadway	A_1 E.O.R.	A_2 Reference CO Concentrations 25 Feet	A_3 50 Feet	A_4 100 Feet	B Traffic Volume	C Emission Factors[2]	Estimated CO Concentrations E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	11.9	7.0	5.4	3.8	1,853	4.92	1.08	0.64	0.49	0.35
East-West Road	3.7	2.7	2.2	1.7	841	4.92	0.15	0.11	0.09	0.07
P.M. Peak Traffic Hour										
North-South Road	11.9	7.0	5.4	3.8	2,652	4.92	1.55	0.91	0.70	0.50
East-West Road	3.7	2.7	2.2	1.7	1,223	4.92	0.22	0.16	0.13	0.10

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	3.5	4.1	2.7
25 Feet from Roadway Edge	3.0	3.4	2.2
50 Feet from Roadway Edge	2.9	3.1	2.1
100 Feet from Roadway Edge	2.7	2.9	2.0

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

	Year	Average Speed (miles per hour) 5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 6

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 2
E-W Lanes Number: 1

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

DATA ENTRY

Project Title: **Sakioka Farms**

Background Information

Nearest Air Monitoring Station measuring CO:	**X**
Background 1-hour CO Concentration (ppm):	**2.3**
Background 8-hour CO Concentration (ppm):	**1.6**

Persistence Factor:
0.6 Rural or Suburban
0.7 Urban Locations
0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Analysis Year: Choices: 2004-2030

Roadway Data

Intersection: **Rice Avenue and Channel Islands Boulevard**
Analysis Condition: **Future With Project Traffic Conditions**

North-South Roadway:
Name: **Rice Avenue**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

East-West Roadway:
Name: **Channel Islands Boulevard**

Roadway Type:

Number of Lanes:

Average Cruise Speed:
A.M. Peak:

P.M. Peak

A.M. Peak Hour Traffic Volumes

		N			
		410	860	0	
W		<	v	>	E
850	^			^	0
0	>			<	0
80	v			v	0
		<	^	>	
		50	860	0	
		S			

P.M. Peak Hour Traffic Volumes

		N			
		1,240	920	0	
W		<	v	>	E
430	^			^	0
0	>			<	0
90	v			v	0
		<	^	>	
		90	1,300	0	
		S			

Vehicles per Hour per Lane

	A.M.	P.M.
N:	2,980	3,890
S:	1,850	2,400
E:	0	0
W:	1,390	1,850
N-S Road:	2,980	3,890
E-W Road:	1,390	1,850

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Sakioka Farms

Background Information

Nearest Air Monitoring Station measuring CO:	X
Background 1-hour CO Concentration (ppm):	2.3
Background 8-hour CO Concentration (ppm):	1.6
Persistence Factor:	0.6
Analysis Year:	2030

Roadway Data

Intersection: Rice Avenue and Channel Islands Boulevard
Analysis Condition: Future With Project Traffic Conditions

		Roadway Type	No. of Lanes	Average Speed A.M.	Average Speed P.M.
North-South Roadway:	Rice Avenue	At Grade	4	20	20
East-West Roadway:	Channel Islands Boulevard	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes

		N			
		410	860	0	
W		<	v	>	E
850	^			^	0
0	>			<	0
80	v			v	0
		<	^	>	
		50	860	0	
		S			

P.M. Peak Hour Traffic Volumes

		N			
		1,240	920	0	
W		<	v	>	E
430	^			^	0
0	>			<	0
90	v			v	0
		<	^	>	
		90	1,300	0	
		S			

Highest Traffic Volumes (Vehicles per Hour)

	A.M.	P.M.
N-S Road:	2,980	3,890
E-W Road:	1,390	1,850

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000[1]

	A_1	A_2	A_3	A_4	B	C				
	Reference CO Concentrations				Traffic	Emission	Estimated CO Concentrations			
Roadway	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors[2]	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	11.9	7.0	5.4	3.8	2,980	1.24	0.44	0.26	0.20	0.14
East-West Road	3.7	2.7	2.2	1.7	1,390	1.24	0.06	0.05	0.04	0.03
P.M. Peak Traffic Hour										
North-South Road	11.9	7.0	5.4	3.8	3,890	1.24	0.57	0.34	0.26	0.18
East-West Road	3.7	2.7	2.2	1.7	1,850	1.24	0.08	0.06	0.05	0.04

[1] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).
[2] Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration[2]
8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration[2]

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	2.8	3.0	2.0
25 Feet from Roadway Edge	2.6	2.7	1.8
50 Feet from Roadway Edge	2.5	2.6	1.8
100 Feet from Roadway Edge	2.5	2.5	1.7

[2] Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

REFERENCE CARBON MONOXIDE COPNCENTRATIONS

Roadway Type	Primary Road (Highest Volume Road) At Edge	25'	50'	100'	300'	500'	Secondary Road (Intersecting Road) At Edge	25'	50'	100'	300'	500'
At Grade												
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
Depressed 15 Feet												
2 lane	20.9	8.2	4.7	3.3	1.5	0.8	4.8	2.4	1.4	1.1	0.8	0.5
8 lane	15.4	6.3	3.6	2.7	1.3	0.7	3.7	1.9	1.1	1.0	0.7	0.6
Depressed 30 Feet												
2 lane	26.8	7.9	3.4	1.7	0.8	0.3	5.2	3.2	2.0	0.8	0.4	0.3
8 lane	21.3	6.0	2.3	1.1	0.6	0.2	4.1	2.7	1.7	0.7	0.5	0.4
Elevated 15 Feet												
2 lane	14.0	7.3	5.7	4.0	1.7	0.9	3.7	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.6	3.4	1.5	0.8	2.6	2.1	1.9	1.6	1.1	0.9
Elevated 30 Feet												
2 lane	14.0	7.3	5.4	4.0	1.7	0.9	3.6	2.6	2.2	1.7	1.0	0.8
8 lane	8.5	5.4	4.3	3.4	1.5	0.8	2.5	2.1	1.9	1.6	1.1	0.9
Project Assumptions												
N-S Road	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9
E-W Road	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
2 lane	14.0	7.6	5.7	4.0	1.7	0.9	3.7	2.7	2.2	1.7	1.0	0.8
4 lane	11.9	7.0	5.4	3.8	1.6	0.9	3.3	2.6	2.2	1.7	1.1	0.8
6 lane	9.5	6.1	4.9	3.5	1.6	0.8	2.8	2.3	2.0	1.7	1.1	0.9
8 lane	8.5	5.7	4.6	3.4	1.5	0.8	2.6	2.2	1.9	1.6	1.1	0.9

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO (grams per mile)

	Year	Average Speed (miles per hour) 5	10	15	20	25	30	35	40	45	50	55	60
1	2004	13.61	10.80	8.90	7.58	6.67	6.02	5.57	5.29	5.17	5.23	5.51	6.08
2	2005	12.07	9.59	7.91	6.73	5.92	5.34	4.94	4.68	4.57	4.62	4.85	5.36
3	2006	11.24	8.96	7.40	6.32	5.57	5.03	4.65	4.41	4.31	4.35	4.57	5.04
4	2007	10.34	8.27	6.85	5.86	5.18	4.68	4.34	4.11	4.02	4.05	4.26	4.70
5	2008	9.44	7.57	6.29	5.39	4.77	4.32	4.00	3.79	3.69	3.72	3.89	4.28
6	2009	8.56	6.89	5.73	4.92	4.36	3.95	3.65	3.46	3.37	3.38	3.53	3.86
7	2010	7.73	6.23	5.20	4.47	3.97	3.60	3.33	3.15	3.06	3.07	3.19	3.47
8	2011	7.00	4.67	4.73	4.08	3.63	3.30	3.05	2.89	2.80	2.79	2.89	3.14
9	2012	6.35	5.15	4.31	3.73	3.32	3.02	2.80	2.64	2.56	2.55	2.63	2.84
10	2013	5.76	4.68	3.93	3.40	3.04	2.77	2.56	2.42	2.34	2.33	2.39	2.57
11	2014	5.23	4.26	3.59	3.11	2.79	2.54	2.35	2.22	2.15	2.13	2.18	2.34
12	2015	4.75	3.89	3.28	2.85	2.56	2.33	2.16	2.04	1.97	1.95	2.00	2.13
13	2016	4.35	3.57	3.02	2.63	2.36	2.16	2.00	1.89	1.82	1.80	1.84	1.96
14	2017	3.98	3.28	2.78	2.43	2.18	2.00	1.85	1.75	1.69	1.66	1.69	1.80
15	2018	3.66	3.02	2.56	2.24	2.02	1.85	1.72	1.63	1.56	1.54	1.57	1.66
16	2019	3.38	2.79	2.38	2.09	1.88	1.73	1.61	1.52	1.46	1.44	1.46	1.54
17	2020	3.14	2.60	2.22	1.95	1.76	1.62	1.51	1.42	1.37	1.35	1.37	1.45
18	2021	2.93	2.43	2.08	1.83	1.66	1.52	1.42	1.34	1.29	1.27	1.29	1.36
19	2022	2.75	2.28	1.95	1.72	1.56	1.43	1.34	1.27	1.22	1.20	1.22	1.28
20	2023	2.59	2.15	1.84	1.63	1.48	1.36	1.27	1.20	1.16	1.14	1.16	1.22
21	2024	2.45	2.04	1.75	1.54	1.40	1.29	1.21	1.14	1.10	1.09	1.10	1.16
22	2025	2.34	1.95	1.67	1.48	1.34	1.24	1.16	1.10	1.06	1.04	1.06	1.12
23	2030	1.96	1.63	1.40	1.24	1.13	1.05	0.98	0.93	0.90	0.90	0.91	0.97

Year Number: 23

PERSISTENCE FACTORS FOR 8-HOUR CO CONCENTRATIONS

1	0.6	Rural or Suburban
2	0.7	Urban Locations
3	0.8	Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion

Persistence Number: 1

ROADWAY TYPES

1	At Grade
2	Depressed 15 Feet
3	Depressed 30 Feet
4	Elevated 15 Feet
5	Elevated 30 Feet

N-S Road Number: 1
E-W Road Number: 1

ROADWAY LANES

1	2
2	4
3	6
4	8

N-S Lanes Number: 2
E-W Lanes Number: 1

ROADWAY SPEEDS

1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60

N-S AM Number: 4
N-S PM Number: 4
E-W AM Number: 4
E-W PM Number: 4

MITIGATION OF LONG-TERM PROJECT GENERATED EMISSIONS
Mitigating Emissions Through an On-Site TDM Program and Contribution to an Off-Site TDM Fund

Project Name: Sakioka Farms Business Park Specific Plan - With Residential

Proposed Project Emissions

Year of Project Completion: 2030

	Emissions in Pounds per Day						Percent of Daily Emissions	
	2030		2031		2032		2030	
Emissions Source	ROC	NOx	ROC	NOx	ROC	NOx	ROC	NOx
Proposed Specific Plan	328.0	163.1	328.0	163.1	328.0	163.1	100.0%	100.0%
Total Project Emissions	328.0	163.1	328.0	163.1	328.0	163.1	100.0%	100.0%
Less Existing Development Emissions	0.0	0.0	0.0	0.0	0.0	0.0		
Subtotal	328.0	163.1	328.0	163.1	328.0	163.1		
Less On-Site TDM Program Credit	0.0	0.0	0.0	0.0	0.0	0.0		
Subtotal	328.0	163.1	328.0	163.1	328.0	163.1		
Less Significance Threshold	25.0	25.0	25.0	25.0	25.0	25.0		
Total Significant Emissions (A)	303.0	138.1	303.0	138.1	303.0	138.1		

Emission were calculated using the URBEMIS 2007 computer model.

Unit Cost Calculations
Annual CPI Change (D) = C - B / Years between B & C
Future CPI (E) = B + (D x years between B and E)
Future Unit Cost per Pound per Day (G) = F x (E / B)

	B	C	D		E	
Current Year	2000 CPI	2008 CPI	Annual CPI Change	Predicted 2030 CPI	Predicted 2031 CPI	Predicted 2032 CPI
2008	171.6	225.008	6.676	371.88	378.556	385.232

	F				G			
	2000		2030		2031		2032	
	ROC	NOx	ROC	NOx	ROC	NOx	ROC	NOx
Unit Cost of Pound of Pollutant Reduced	$5.18	$7.54	$11.23	$16.34	$11.43	$16.63	$11.63	$16.93

CPI = Consumer price index value for the Los Angeles-Riverside-Orange County, California region.
Calculation methodology from Ventura County Air Quality Assessment Guidelines, Section 7.5.3.

Number of Days per Year of Project Operation

Number of Days per year of Operation (J) = Total I / Total H

	H		I
Proposed Land Use	Vehicle Trips per Day	Days of Operation per Year	Vehicle Trips per Year
Business Research	26,100	250	6,525,000
Light Industrial	30,095	250	7,523,750
Office	5,400	250	1,350,000
Commercial	3,500	365	1,277,500
Multi-Family Residential	7,120	365	2,598,800
Totals	72,215		19,275,050
Number of Days per Year of Project Operation (weighted average) (J)		267	

TDM Fund Calculations

Annual Cost of Pollutants Reduced = A x G x J

	Analysis Year					
	2030		2031		2032	
	ROC	NOx	ROC	NOx	ROC	NOx
Daily Emissions Over Significance Threshold in Pounds per Day (A)	303.0	138.1	303.0	138.1	303.0	138.1
Cost per Unit of Pollutant Reduced (G)	$11.23	$16.34	$11.43	$16.63	$11.63	$16.93
Number of Days per Year of Project Operation (J)			267			
Annual Cost	$907,755	$602,264	$924,051	$613,076	$940,347	$623,888

	ROC	NOx
Total Cost for 3 Years per Pollutant - TDM Fund Contribution is the Higher of the Two	$2,772,153	$1,839,229

Calculation methodology from Ventura County Air Quality Assessment Guidelines, Section 7.5.3.

MITIGATION OF LONG-TERM PROJECT GENERATED EMISSIONS
Mitigating Emissions Through an On-Site TDM Program and Contribution to an Off-Site TDM Fund

Project Name: Sakioka Farms Business Park Specific Plan - Without Residential

Proposed Project Emissions

Year of Project Completion: 2030

	Emissions in Pounds per Day						Percent of Daily Emissions	
	2030		2031		2032		2030	
Emissions Source	ROC	NOx	ROC	NOx	ROC	NOx	ROC	NOx
Proposed Specific Plan	278.3	152.6	278.3	152.6	278.3	152.6	100.0%	100.0%
Total Project Emissions	278.3	152.6	278.3	152.6	278.3	152.6	100.0%	100.0%
Less Existing Development Emissions	0.0	0.0	0.0	0.0	0.0	0.0		
Subtotal	278.3	152.6	278.3	152.6	278.3	152.6		
Less On-Site TDM Program Credit	0.0	0.0	0.0	0.0	0.0	0.0		
Subtotal	278.3	152.6	278.3	152.6	278.3	152.6		
Less Significance Threshold	25.0	25.0	25.0	25.0	25.0	25.0		
Total Significant Emissions (A)	253.3	127.6	253.3	127.6	253.3	127.6		

Emission were calculated using the URBEMIS 2007 computer model.

Unit Cost Calculations
Annual CPI Change (D) = C - B / Years between B & C
Future CPI (E) = B + (D x years between B and E)
Future Unit Cost per Pound per Day (G) = F x (E / B)

	B	C	D		E	
Current Year	2000 CPI	2008 CPI	Annual CPI Change	Predicted 2030 CPI	Predicted 2031 CPI	Predicted 2032 CPI
2008	171.6	225.008	6.676	371.88	378.556	385.232

	F				G			
	2000		2030		2031		2032	
	ROC	NOx	ROC	NOx	ROC	NOx	ROC	NOx
Unit Cost of Pound of Pollutant Reduced	$5.18	$7.54	$11.23	$16.34	$11.43	$16.63	$11.63	$16.93

CPI = Consumer price index value for the Los Angeles-Riverside-Orange County, California region.
Calculation methodology from Ventura County Air Quality Assessment Guidelines, Section 7.5.3.

Number of Days per Year of Project Operation

Number of Days per year of Operation (J) = Total I / Total H

	H		I
Proposed Land Use	Vehicle Trips per Day	Days of Operation per Year	Vehicle Trips per Year
Business Research	26,100	250	6,525,000
Light Industrial	35,750	250	8,937,500
Office	5,400	250	1,350,000
Commercial	3,500	365	1,277,500
Totals	70,750		18,090,000
Number of Days per Year of Project Operation (weighted average) (J)		256	

TDM Fund Calculations

Annual Cost of Pollutants Reduced = A x G x J

	Analysis Year					
	2030		2031		2032	
	ROC	NOx	ROC	NOx	ROC	NOx
Daily Emissions Over Significance Threshold in Pounds per Day (A)	253.3	127.6	253.3	127.6	253.3	127.6
Cost per Unit of Pollutant Reduced (G)	$11.23	$16.34	$11.43	$16.63	$11.63	$16.93
Number of Days per Year of Project Operation (J)			256			
Annual Cost	$727,105	$533,155	$740,158	$542,727	$753,211	$552,298

	ROC	NOx
Total Cost for 3 Years per Pollutant - TDM Fund Contribution is the Higher of the Two	$2,220,473	$1,628,180

Calculation methodology from Ventura County Air Quality Assessment Guidelines, Section 7.5.3.

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: F:\MSWord 2005 Projects\Sakioka Farms - Oxnard\Technical Data\AQ Data\URBEMIS Runs\Specific Plan Without Residential.urb924

Project Name: Sakioka Farms Business Park Specific Plan - Without Residential

Project Location: Ventura County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	6.52	0.91	1.32	0.00	0.00	0.00	1,083.76

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	42.94	36.72	427.87	1.01	183.74	34.70	102,120.45

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	49.46	37.63	429.19	1.01	183.74	34.70	103,204.21

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: F:\MSWord 2005 Projects\Sakioka Farms - Oxnard\Technical Data\AQ Data\URBEMIS Runs\Specific Plan Without Residential.urb924

Project Name: Sakioka Farms Business Park Specific Plan - Without Residential

Project Location: Ventura County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	35.98	5.02	10.33	0.00	0.03	0.03	5,944.13

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	232.94	171.89	2,309.02	5.76	1,006.77	190.12	586,618.02

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	268.92	176.91	2,319.35	5.76	1,006.80	190.15	592,562.15

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.36	4.94	4.15	0.00	0.01	0.01	5,932.89
Hearth							
Landscape	0.49	0.08	6.18	0.00	0.02	0.02	11.24
Consumer Products							
Architectural Coatings	35.13						
TOTALS (lbs/day, unmitigated)	35.98	5.02	10.33	0.00	0.03	0.03	5,944.13

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Office park	17.64	13.23	178.33	0.44	77.56	14.65	45,218.79
General light industry	119.14	88.06	1,188.60	2.96	516.28	97.51	301,079.13
Industrial park	86.78	62.97	843.75	2.11	368.61	69.60	214,685.84
Commercial	9.38	7.63	98.34	0.25	44.32	8.36	25,634.26
TOTALS (lbs/day, unmitigated)	232.94	171.89	2,309.02	5.76	1,006.77	190.12	586,618.02

Operational Settings:

Does not include correction for passby trips

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Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 85 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Office park		13.50	1000 sq ft	400.00	5,400.00	45,262.80
General light industry		11.91	1000 sq ft	3,002.50	35,759.77	301,276.10
Industrial park		10.44	1000 sq ft	2,500.00	26,100.00	215,122.71
Commercial		35.00	1000 sq ft	100.00	3,500.00	25,875.50
					70,759.77	587,537.11

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	44.7	0.0	100.0	0.0
Light Truck < 3750 lbs	8.6	0.0	98.8	1.2
Light Truck 3751-5750 lbs	24.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	12.3	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.0	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	66.7	33.3
Med-Heavy Truck 14,001-33,000 lbs	0.8	0.0	25.0	75.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	0.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.8	34.2	65.8	0.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.9	0.0	89.5	10.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Office park				48.0	24.0	28.0
General light industry				50.0	25.0	25.0
Industrial park				41.5	20.8	37.8
Commercial				2.0	1.0	97.0

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: F:\MSWord 2005 Projects\Sakioka Farms - Oxnard\Technical Data\AQ Data\URBEMIS Runs\Specific Plan Without Residential.urb924

Project Name: Sakioka Farms Business Park Specific Plan - Without Residential

Project Location: Ventura County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	35.49	4.94	4.15	0.00	0.01	0.01	5,932.89

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	240.04	259.75	2,415.43	5.03	1,006.77	190.12	505,456.33

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	275.53	264.69	2,419.58	5.03	1,006.78	190.13	511,389.22

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.36	4.94	4.15	0.00	0.01	0.01	5,932.89
Hearth							
Landscaping - No Winter Emissions							
Consumer Products							
Architectural Coatings	35.13						
TOTALS (lbs/day, unmitigated)	35.49	4.94	4.15	0.00	0.01	0.01	5,932.89

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Office park	18.48	20.00	186.16	0.39	77.56	14.65	38,966.24
General light industry	122.91	133.11	1,239.38	2.58	516.28	97.51	259,461.20
Industrial park	87.95	95.14	884.10	1.84	368.61	69.60	184,969.04
Commercial	10.70	11.50	105.79	0.22	44.32	8.36	22,059.85
TOTALS (lbs/day, unmitigated)	240.04	259.75	2,415.43	5.03	1,006.77	190.12	505,456.33

Operational Settings:

Does not include correction for passby trips

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Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 40 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Office park		13.50	1000 sq ft	400.00	5,400.00	45,262.80
General light industry		11.91	1000 sq ft	3,002.50	35,759.77	301,276.10
Industrial park		10.44	1000 sq ft	2,500.00	26,100.00	215,122.71
Commercial		35.00	1000 sq ft	100.00	3,500.00	25,875.50
					70,759.77	587,537.11

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	44.7	0.0	100.0	0.0
Light Truck < 3750 lbs	8.6	0.0	98.8	1.2
Light Truck 3751-5750 lbs	24.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	12.3	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.0	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	66.7	33.3
Med-Heavy Truck 14,001-33,000 lbs	0.8	0.0	25.0	75.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	0.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.8	34.2	65.8	0.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.9	0.0	89.5	10.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Office park				48.0	24.0	28.0
General light industry				50.0	25.0	25.0
Industrial park				41.5	20.8	37.8
Commercial				2.0	1.0	97.0

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: W:\2005 Projects\Sakioka Farms - Oxnard\Technical Data\AQ Data\Specific Plan With Residential.urb924

Project Name: Sakioka Farms Business Park Specific Plan - With Residential

Project Location: Ventura County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	95.66	11.76	14.74	0.00	0.05	0.05	14,515.49

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	232.30	151.33	2,037.02	4.96	863.69	163.32	505,770.48

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	327.96	163.09	2,051.76	4.96	863.74	163.37	520,285.97

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.88	11.66	7.01	0.00	0.02	0.02	14,501.45
Hearth - No Summer Emissions							
Landscape	0.61	0.10	7.73	0.00	0.03	0.03	14.04
Consumer Products	43.54						
Architectural Coatings	50.63						
TOTALS (lbs/day, unmitigated)	95.66	11.76	14.74	0.00	0.05	0.05	14,515.49

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Apartments mid rise	24.09	15.87	216.37	0.53	91.36	17.28	53,584.31
Office park	16.29	11.39	153.67	0.37	65.02	12.30	38,091.75
General light industry	103.83	64.52	872.42	2.12	369.43	69.86	216,418.11
Industrial park	80.84	54.84	735.25	1.80	313.41	59.25	183,321.92
Commercial	7.25	4.71	59.31	0.14	24.47	4.63	14,354.39
TOTALS (lbs/day, unmitigated)	232.30	151.33	2,037.02	4.96	863.69	163.32	505,770.48

Operational Settings:

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Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 85 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Apartments mid rise	25.00	8.00	dwelling units	890.00	7,120.00	53,295.07
Office park		13.50	1000 sq ft	400.00	5,400.00	37,930.23
General light industry		6.50	1000 sq ft	4,630.00	30,095.00	215,517.82
Industrial park		10.44	1000 sq ft	2,500.00	26,100.00	182,854.31
Commercial		35.00	1000 sq ft	100.00	3,500.00	14,270.34
					72,215.00	503,867.77

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	44.7	0.0	100.0	0.0
Light Truck < 3750 lbs	8.6	0.0	98.8	1.2
Light Truck 3751-5750 lbs	24.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	12.3	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.0	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	66.7	33.3
Med-Heavy Truck 14,001-33,000 lbs	0.8	0.0	25.0	75.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	0.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.8	34.2	65.8	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.9	0.0	89.5	10.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Office park				48.0	24.0	28.0
General light industry				50.0	25.0	25.0
Industrial park				41.5	20.8	37.8
Commercial				2.0	1.0	97.0

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: W:\2005 Projects\Sakioka Farms - Oxnard\Technical Data\AQ Data\Specific Plan Without Residential.urb924

Project Name: Sakioka Farms Business Park Specific Plan - Without Residential

Project Location: Ventura County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	50.60	5.02	10.33	0.00	0.03	0.03	5,944.13

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	227.72	147.59	1,984.58	4.83	841.75	159.17	492,852.21

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	278.32	152.61	1,994.91	4.83	841.78	159.20	498,796.34

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.36	4.94	4.15	0.00	0.01	0.01	5,932.89
Hearth - No Summer Emissions							
Landscape	0.49	0.08	6.18	0.00	0.02	0.02	11.24
Consumer Products	0.00						
Architectural Coatings	49.75						
TOTALS (lbs/day, unmitigated)	50.60	5.02	10.33	0.00	0.03	0.03	5,944.13

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Office park	16.29	11.39	153.67	0.37	65.02	12.30	38,091.75
General light industry	123.34	76.65	1,036.35	2.52	438.85	82.99	257,084.15
Industrial park	80.84	54.84	735.25	1.80	313.41	59.25	183,321.92
Commercial	7.25	4.71	59.31	0.14	24.47	4.63	14,354.39
TOTALS (lbs/day, unmitigated)	227.72	147.59	1,984.58	4.83	841.75	159.17	492,852.21

Operational Settings:

Includes correction for passby trips

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Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 85 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Office park		13.50	1000 sq ft	400.00	5,400.00	37,930.23
General light industry		6.50	1000 sq ft	5,500.00	35,750.00	256,014.69
Industrial park		10.44	1000 sq ft	2,500.00	26,100.00	182,854.31
Commercial		35.00	1000 sq ft	100.00	3,500.00	14,270.34
					70,750.00	491,069.57

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	44.7	0.0	100.0	0.0
Light Truck < 3750 lbs	8.6	0.0	98.8	1.2
Light Truck 3751-5750 lbs	24.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	12.3	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.0	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	66.7	33.3
Med-Heavy Truck 14,001-33,000 lbs	0.8	0.0	25.0	75.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	0.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.8	34.2	65.8	0.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.9	0.0	89.5	10.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Office park				48.0	24.0	28.0
General light industry				50.0	25.0	25.0
Industrial park				41.5	20.8	37.8
Commercial				2.0	1.0	97.0

Appendix J
Noise Impact Documents

OFF-SITE TRAFFIC NOISE LEVELS

Project Name: Sakioka Farms

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Analysis Scenario(s): Existing Traffic Voumes
Source of Traffic Volumes: Caltrans, 2008.
Community Noise Descriptor: L_{dn}: ____ CNEL: X

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Traffic Noise Levels

Analysis Condition Roadway Name Roadway Segment	Land Use	Lanes	Median Width	Peak Hour Volume	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor[1]	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix Medium Trucks	Vehicle Mix Heavy Trucks	Peak Hour dB(A) L_{eq}	24-Hour dB(A) CNEL
Existing Traffic Volumes													
101 Freeway													
South of Rice/Santa Clara Interc	Residential	6	20	10,600	133,000	60	152	0	0	1.8%	0.7%		

Roadway Segment	Traffic Volumes 24-Hour Day	Eve	Night	Peak Hour MTp	HTp	24-Hour MTd	HTd	MTe	HTe	MTn	HTn	Ref. Energy Levels A	MT	HT	Dist Adj	Lp A	MT	HT	Total	Ld A	MT	HT	Total	Le A	MT	HT	Total	Ln A	MT	HT	Total
South of Rice/Santa Clara Interc	103,34	16,891	12,768	167	66	2,093	830	121	26	180	75	74.2	80.8		-4.7	76.5	65.2			75.6	65.4			72.6	57.8			67.7	55.9		

[1] Distance is from the centerline of the roadway segment to the receptor location.

OFF-SITE TRAFFIC NOISE LEVELS

Project Name: Sakioka Farms Business Park Specific Plan

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Analysis Scenario(s): Existing and Future Roadway Traffic Volumes
Source of Traffic Volumes: Austin-Foust Associates, December 2009
Community Noise Descriptor: L_{dn}: ___ CNEL: X

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Traffic Noise Levels

Analysis Condition / Roadway Name / Roadway Segment	Land Use	Lanes	Median Width	Peak Hour Volume	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor[1]	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix Medium Trucks	Vehicle Mix Heavy Trucks	Peak Hour dB(A) L_{eq}	24-Hour dB(A) CNEL	Traffic Volumes 24-Hour Day	Eve	Night	Peak Hour MTp	HTp	24-Hour MTd	HTd	MTe	HTe	MTn	HTn	Ref. Energy Levels A	MT	HT	Dist Adj	Lp A	MT	HT	Total	Ld A	MT	HT	Total	Le A	MT	HT	Total	Ln A	MT	HT	Total
Existing Traffic Volumes																																												
Gonzales Road																																												
Rice to Rose	Single Family Residential	6	12	0	21,000	45	75	0	-5	1.8%	0.7%	0.0		16,317	2,667	2,016	0	0	330	131	19	4	28	12	69.3	77.6		-1.3					62.4	53.9			59.5	46.3			54.6	44.5		
Rose to Oxnard	Single Family Residential	6	12	0	42,000	45	75	0	-5	1.8%	0.7%	0.0		32,634	5,334	4,032	0	0	661	262	38	8	57	24	69.3	77.6		-1.3					65.5	56.9			62.5	49.3			57.6	47.5		
	High School	6	12	0	42,000	45	100	0	0	1.8%	0.7%	0.0		32,634	5,334	4,032	0	0	661	262	38	8	57	24	69.3	77.6		-2.8					68.9	60.4			66.0	52.8			61.1	51.0		
Oxnard to Hobson	Single Family Residential	6	12	0	28,000	45	75	0	-5	1.8%	0.7%	0.0		21,756	3,556	2,688	0	0	441	175	25	6	38	16	69.3	77.6		-1.3					63.7	55.2			60.7	47.6			55.9	45.7		
Hobson to Ventura	Multi-Family Residential	4	12	0	18,000	45	60	0	0	1.8%	0.7%	0.0		13,986	2,286	1,728	0	0	283	112	16	4	24	10	69.3	77.6		-0.5					67.6	59.0			64.6	51.4			59.7	49.6		
Ventura to Patterson	Single Family Residential	4	12	0	17,000	45	65	0	-5	1.8%	0.7%	0.0		13,209	2,159	1,632	0	0	268	106	15	3	23	10	69.3	77.6		-0.9					61.9	53.4			58.9	45.8			54.1	43.9		
Patterson to Victoria	High School	4	12	0	22,000	45	75	0	0	1.8%	0.7%	0.0		17,094	2,794	2,112	0	0	346	137	20	4	30	12	69.3	77.6		-1.6					67.3	58.8			64.3	51.2			59.5	49.3		
Camino Del Sol																																												
Rice to Rose	Single Family Residential	4	12	0	13,000	45	75	0	-5	1.8%	0.7%	0.0		10,101	1,651	1,248	0	0	205	81	12	3	18	7	69.3	77.6		-1.6					60.0	51.5			57.1	43.9			52.2	42.0		
	Multi-Family Residential	4	12	0	13,000	45	65	0	0	1.8%	0.7%	0.0		10,101	1,651	1,248	0	0	205	81	12	3	18	7	69.3	77.6		-0.9					65.7	57.2			62.8	49.6			57.9	47.8		
Rose to Oxnard	Single Family Residential	4	12	0	14,000	40	75	0	-5	1.8%	0.7%	0.0		10,878	1,778	1,344	0	0	220	87	13	3	19	8	67.4	76.3		-1.6					58.9	51.0			55.9	43.4			51.0	41.6		
Santa Clara Road																																												
Auto Center to Central	Single Family Residential	2	12	0	10,000	35	75	0	0	1.8%	0.7%	0.0		7,770	1,270	960	0	0	157	62	9	2	14	6	65.1	74.8		-1.8					60.6	53.5			57.6	45.9			52.7	44.0		
Rice Avenue																																												
Wooley to Channel Islands	Single Family Residential	4	12	0	27,000	50	75	0.5	0	1.8%	0.7%	0.0		20,979	3,429	2,592	0	0	425	168	25	5	37	15	71.1	78.8		-2.4					68.7	59.6			65.7	52.0			60.9	50.1		
Rose Avenue																																												
north of Auto Center Drive	Single Family Residential	4	12	0	21,000	40	65	0	0	1.8%	0.7%	0.0		16,317	2,667	2,016	0	0	330	131	19	4	28	12	67.4	76.3		-0.9					66.3	58.5			63.4	50.9			58.5	49.0		
	Middle School	4	12	0	21,000	40	75	0	0	1.8%	0.7%	0.0		16,317	2,667	2,016	0	0	330	131	19	4	28	12	67.4	76.3		-1.6					65.6	57.8			62.7	50.2			57.8	48.3		
south of Central Avenue	Single Family Residential	4	12	0	12,000	55	75	0	-5	1.8%	0.7%	0.0		9,324	1,524	1,152	0	0	189	75	11	2	16	7	72.7	79.9		-1.6					62.2	52.5			59.2	44.9			54.3	43.1		
Gonzales to Camino Del Sol	Single Family Residential	4	12	0	39,000	45	75	0	-5	1.8%	0.7%	0.0		30,303	4,953	3,744	0	0	614	243	35	8	53	22	69.3	77.6		-1.6					64.8	56.3			61.8	48.7			57.0	46.8		
Camino Del Sol to Fifth	Multi-Family Residential	4	12	0	45,000	45	60	0	0	1.8%	0.7%	0.0		34,965	5,715	4,320	0	0	708	281	41	9	61	25	69.3	77.6		-0.5					71.5	63.0			68.6	55.4			63.7	53.6		
Channel Islands Boulevard																																												
Rice to PCH		2	12	0	14,000	40	75	0	-5	1.8%	0.7%	0.0		10,878	1,778	1,344	0	0	220	87	13	3	19	8	67.4	76.3		-1.8					58.7	50.8			55.7	43.3			50.9	41.4		
Existing Plus Project Traffic Volumes																																												
Gonzales Road																																												
Rice to Rose	Single Family Residential	6	12	0	31,000	45	75	0	-5	1.8%	0.7%	0.0		24,087	3,937	2,976	0	0	488	193	28	6	42	17	69.3	77.6		-1.3					64.1	55.6			61.2	48.0			56.3	46.2		
Rose to Oxnard	Single Family Residential	6	12	0	48,000	45	75	0	-5	1.8%	0.7%	0.0		37,296	6,096	4,608	0	0	755	299	44	10	65	27	69.3	77.6		-1.3					66.0	57.5			63.1	49.9			58.2	48.1		
	High School	6	12	0	48,000	45	100	0	0	1.8%	0.7%	0.0		37,296	6,096	4,608	0	0	755	299	44	10	65	27	69.3	77.6		-2.8					69.5	61.0			66.5	53.4			61.7	51.5		
Oxnard to Hobson	Single Family Residential	6	12	0	31,000	45	75	0	-5	1.8%	0.7%	0.0		24,087	3,937	2,976	0	0	488	193	28	6	42	17	69.3	77.6		-1.3					64.1	55.6			61.2	48.0			56.3	46.2		
Hobson to Ventura	Multi-Family Residential	4	12	0	20,000	45	60	0	0	1.8%	0.7%	0.0		15,540	2,540	1,920	0	0	315	125	18	4	27	11	69.3	77.6		-0.5					68.0	59.5			65.0	51.9			60.2	50.0		
Ventura to Patterson	Single Family Residential	4	12	0	18,000	45	65	0	-5	1.8%	0.7%	0.0		13,986	2,286	1,728	0	0	283	112	16	4	24	10	69.3	77.6		-0.9					62.2	53.6			59.2	46.0			54.3	44.2		
Patterson to Victoria	High School	4	12	0	22,000	45	75	0	0	1.8%	0.7%	0.0		17,094	2,794	2,112	0	0	346	137	20	4	30	12	69.3	77.6		-1.6					67.3	58.8			64.3	51.2			59.5	49.3		
Camino Del Sol																																												
Rice to Rose	Single Family Residential	4	12	0	16,000	45	75	0	-5	1.8%	0.7%	0.0		12,432	2,032	1,536	0	0	252	100	15	3	22	9	69.3	77.6		-1.6					60.9	52.4			58.0	44.8			53.1	42.9		
	Multi-Family Residential	4	12	0	16,000	45	65	0	0	1.8%	0.7%	0.0		12,432	2,032	1,536	0	0	252	100	15	3	22	9	69.3	77.6		-0.9					66.6	58.1			63.7	50.5			58.8	48.7		
Rose to Oxnard	Single Family Residential	4	12	0	16,000	40	75	0	-5	1.8%	0.7%	0.0		12,432	2,032	1,536	0	0	252	100	15	3	22	9	67.4	76.3		-1.6					59.5	51.6			56.5	44.0			51.6	42.1		
Santa Clara Road																																												
Auto Center to Central	Single Family Residential	2	12	0	11,000	35	75	0	0	1.8%	0.7%	0.0		8,547	1,397	1,056	0	0	173	69	10	2	15	6	65.1	74.8		-1.8					61.0	53.9			58.0	46.3			53.1	44.4		
Rice Avenue																																												
Wooley to Channel Islands	Single Family Residential	4	12	0	35,000	50	75	0.5	0	1.8%	0.7%	0.0		27,195	4,445	3,360	0	0	551	218	32	7	47	20	71.1	78.8		-2.4					69.9	60.7			66.9	53.1			62.0	51.3		
Rose Avenue																																												
north of Auto Center Drive	Single Family Residential	4	12	0	24,000	40	65	0	0	1.8%	0.7%	0.0		18,648	3,048	2,304	0	0	378	150	22	5	32	14	67.4	76.3		-0.9					66.9	59.1			63.9	51.5			59.1	49.6		
	Middle School	4	12	0	24,000	40	75	0	0	1.8%	0.7%	0.0		18,648	3,048	2,304	0	0	378	150	22	5	32	14	67.4	76.3		-1.6					66.2	58.4			63.2	50.8			58.4	48.9		
south of Central Avenue	Single Family Residential	4	12	0	13,000	55	75	0	-5	1.8%	0.7%	0.0		10,101	1,651	1,248	0	0	205	81	12	3	18	7	72.7	79.9		-1.6					62.5	52.9			59.6	45.3			54.7	43.4		
Gonzales to Camino Del Sol	Single Family Residential	4	12	0	53,000	45	75	0	-5	1.8%	0.7%	0.0		41,181	6,731	5,088	0	0	834	331	48	11	72	30	69.3	77.6		-1.6					66.1	57.6			63.2	50.0			58.3	48.1		
Camino Del Sol to Fifth	Multi-Family Residential	4	12	0	46,000	45	60	0	0	1.8%	0.7%	0.0		35,742	5,842	4,416	0	0	724	287	42	9	62	26	69.3	77.6		-0.5					71.6	63.1			68.7	55.5			63.8	53.6		
Channel Islands Boulevard																																												
Rice to PCH		2	12	0	17,000	40	75	0	-5	1.8%	0.7%	0.0		13,209	2,159	1,632	0	0	268	106	15	3	23	10	67.4	76.3		-1.8					59.5	51.7			56.6	44.1			51.7	42.2		
Year 2030 Baseline Traffic Volumes																																												
Gonzales Road																																												
Rice to Rose	Single Family Residential	6	12	0	31,000	45	75	0	-5	1.8%	0.7%	0.0		24,087	3,937	2,976	0	0	488	193	28	6	42	17	69.3	77.6		-1.3					64.1	55.6			61.2	48.0			56.3	46.2		
Rose to Oxnard	Single Family Residential	6	12	0	49,000	45	75	0	-5	1.8%	0.7%	0.0		38,073	6,223	4,704	0	0	771	306	45	10	66	28	69.3	77.6		-1.3					66.1	57.6			63.1	50.0			58.3	48.1		
	High School	6	12	0	49,000	45	100	0	0	1.8%	0.7%	0.0		38,073	6,223	4,704	0	0	771	306	45	10	66	28	69.3	77.6		-2.8					69.6	61.1			66.6	53.5			61.8	51.6		
Oxnard to Hobson	Single Family Residential	6	12	0	33,000	45	75	0	-5	1.8%	0.7%	0.0		25,641	4,191	3,168	0	0	519	206	30	7	45	19	69.3	77.6		-1.3					64.4	55.9			61.4	48.3			56.6	46.4		
Hobson to Ventura	Multi-Family Residential	4	12	0	22,000	45	60	0	0	1.8%	0.7%	0.0		17,094	2,794	2,112	0	0	346	137	20	4	30	12	69.3	77.6		-0.5					68.4	59.9			65.5	52.3			60.6	50.4		
Ventura to Patterson	Single Family Residential	4	12	0	18,000	45	65	0	-5	1.8%	0.7%	0.0		13,986	2,286	1,728	0	0	283	112	16	4	24	10	69.3	77.6		-0.9					62.2	53.6			59.2	46.0			54.3	44.2		
Patterson to Victoria	High School	4	12	0	22,000	45	75	0	0	1.8%	0.7%	0.0		17,094	2,794	2,112	0	0	346	137	20	4	30	12	69.3	77.6		-1.6					67.3	58.8			64.3	51.2			59.5	49.3		
Camino Del Sol																																												
Rice to Rose	Single Family Residential	4	12	0	14,000	45	75	0	-5	1.8%	0.7%	0.0		10,878	1,778	1,344	0	0	220	87	13	3	19	8	69.3	77.6		-1.6					60.4	51.8			57.4	44.2			52.5	42.4		
	Multi-Family Residential	4	12	0	14,000	45	65	0	0	1.8%	0.7%	0.0		10,878	1,778	1,344	0	0	220	87	13	3	19	8	69.3	77.6		-0.9					66.1	57.5			63.1	49.9			58.2	48.1		
Rose to Oxnard	Single Family Residential	4	12	0	19,000	40	75	0	-5	1.8%	0.7%	0.0		14,763	2,413	1,824	0	0	299	119	17	4	26	11	67.4	76.3		-1.6					60.2	52.3			57.2	44.8			52.4	42.9		
Santa Clara Road																																												
Auto Center to Central	Single Family Residential	4	12	0	14,000	35	75	0	0	1.8%	0.7%	0.0		10,878	1,778	1,344	0	0	220	87	13	3	19	8	65.1	74.8		-1.6					62.2	55.1			59.2	47.5			54.4	45.7		
Rice Avenue																																												
Wooley to Channel Islands	Single Family Residential	6	12	0	42,000	50	75	0.5	0	1.8%	0.7%	0.0		32,634	5,334	4,032	0	0	661	262	38	8	57	24	71.1	78.8		-1.9					71.1	62.0			68.2	54.4			63.3	52.6		
Rose Avenue																																												
north of Auto Center Drive	Single Family Residential	4	12	0	32,000	40	65	0	0	1.8%	0.7%	0.0		24,864	4,064	3,072	0	0	504	200	29	6	43	18	67.4	76.3		-0.9					68.2	60.3			65.2	52.7			60.3	50.9		
	Middle School	4	12	0	32,000	40	75	0	0	1.8%	0.7%	0.0		24,864	4,064	3,072	0	0	504	200	29	6	43	18	67.4	76.3		-1.6					67.5	59.6			64.5	52.0			59.6	50.2		
south of Central Avenue	Single Family Residential	4	12	0	15,000	55	75	0	-5	1.8%	0.7%	0.0		11,655	1,905	1,440	0	0	236	94	14	3	20	8	72.7	79.9		-1.6					63.2	53.5			60.2	45.9			55.3	44.0		
Gonzales to Camino Del Sol	Single Family Residential	4	12	0	66,000	45	75	0	-5	1.8%	0.7%	0.0		51,282	8,382	6,336	0	0	1,039	412	60	13	89	37	69.3	77.6		-1.6					67.1	58.6			64.1	51.0			59.2	49.1		
Camino Del Sol to Fifth	Multi-Family Residential	4	12	0	59,000	45	60	0	0	1.8%	0.7%	0.0		45,843	7,493	5,664	0	0	929	368	54	12	80	33	69.3	77.6		-0.5					72.7	64.2			69.7	56.6			64.9	54.7		
Channel Islands Boulevard																																												
Rice to PCH		4	12	0	20,000	40	75	0	-5	1.8%	0.7%	0.0		15,540	2,540	1,920	0	0	315	125	18	4	27	11	67.4	76.3		-1.6					60.4	52.6			57.4	45.0			52.6	43.1		
Year 2030 With Increased Project																																												
Gonzales Road																																												
Rice to Rose	Single Family Residential	6	12	0	43,000	45	75	0	-5	1.8%	0.7%	0.0		33,411	5,461	4,128	0	0	677	268	39	9	58	24	69.3	77.6		-1.3					65.6	57.0			62.6	49.4			57.7	47.6		
Rose to Oxnard	Single Family Residential	6	12	0	52,000	45	75	0	-5	1.8%	0.7%	0.0		40,404	6,604	4,992	0	0	818	324	47	10	70	29	69.3	77.6		-1.3					66.4	57.9			63.4	50.3			58.5	48.4		
	High School	6	12	0	52,000	45	100	0	0	1.8%	0.7%	0.0		40,404	6,604	4,992	0	0	818	324	47	10	70	29	69.3	77.6		-2.8					69.9	61.3			66.9	53.8			62.0	51.9		
Oxnard to Hobson	Single Family Residential	6	12	0	34,000	45	75	0	-5	1.8%	0.7%	0.0		26,418	4,318	3,264	0	0	535	212	31	7	46	19	69.3	77.6		-1.3					64.5	56.0			61.6	48.4			56.7	46.6		
Hobson to Ventura	Multi-Family Residential	4	12	0	23,000	45	60	0	0	1.8%	0.7%	0.0		17,871	2,921	2,208	0	0	362	143	21	5	31	13	69.3	77.6		-0.5					68.6	60.1			65.6	52.5			60.8	50.6		
Ventura to Patterson	Single Family Residential	4	12	0	18,000	45	65	0	-5	1.8%	0.7%	0.0		13,986	2,286	1,728	0	0	283	112	16	4	24	10	69.3	77.6		-0.9					62.2	53.6			59.2	46.0			54.3	44.2		
Patterson to Victoria	High School	4	12	0	22,000	45	75	0	0	1.8%	0.7%	0.0		17,094	2,794	2,112	0	0	346	137	20	4	30	12	69.3	77.6		-1.6					67.3	58.8			64.3	51.2			59.5	49.3		
Camino Del Sol																																												
Rice to Rose	Single Family Residential	4	12	0	17,000	45	75	0	-5	1.8%	0.7%	0.0		13,209	2,159	1,632	0	0	268	106	15	3	23	10	69.3	77.6		-1.6					61.2	52.7			58.2	45.1			53.4	43.2		
	Multi-Family Residential	4	12	0	17,000	45	65	0	0	1.8%	0.7%	0.0		13,209	2,159	1,632	0	0	268	106	15	3	23	10	69.3	77.6		-0.9					66.9	58.4			63.9	50.8			59.1	48.9		
Rose to Oxnard	Single Family Residential	4	12	0	20,000	40	75	0	-5	1.8%	0.7%	0.0		15,540	2,540	1,920	0	0	315	125	18	4	27	11	67.4	76.3		-1.6					60.4	52.6			57.4	45.0			52.6	43.1		
Santa Clara Road																																												
Auto Center to Central	Single Family Residential	4	12	0	15,000	35	75	0	0	1.8%	0.7%	0.0		11,655	1,905	1,440	0	0	236	94	14	3	20	8	65.1	74.8		-1.6					62.5	55.4			59.5	47.8			54.7	46.0		
Rice Avenue																																												
Wooley to Channel Islands	Single Family Residential	6	12	0	44,000	50	75	0.5	0	1.8%	0.7%	0.0		34,188	5,588	4,224	0	0	692	274	40	9	60	25	71.1	78.8		-1.9					71.3	62.2			68.4	54.6			63.5	52.8		
Rose Avenue																																												
north of Auto Center Drive	Single Family Residential	4	12	0	33,000	40	65	0	0	1.8%	0.7%	0.0		25,641	4,191	3,168	0	0	519	206	30	7	45	19	67.4	76.3		-0.9					68.3	60.5			65.3	52.9			60.5	51.0		
	Middle School	4	12	0	33,000	40	75	0	0	1.8%	0.7%	0.0		25,641	4,191	3,168	0	0	519	206	30	7	45	19	67.4	76.3		-1.6					67.6	59.7			64.6	52.2			59.8	50.3		
south of Central Avenue	Single Family Residential	4	12	0	15,000	55	75	0	-5	1.8%	0.7%	0.0		11,655	1,905	1,440	0	0	236	94	14	3	20	8	72.7	79.9		-1.6					63.2	53.5			60.2	45.9			55.3	44.0		
Gonzales to Camino Del Sol	Single Family Residential	4	12	0	68,000	45	75	0	-5	1.8%	0.7%	0.0		52,836	8,636	6,528	0	0	1,070	424	62	14	92	38	69.3	77.6		-1.6					67.2	58.7			64.2	51.1			59.4	49.2		
Camino Del Sol to Fifth	Multi-Family Residential	4	12	0	60,000	45	60	0	0	1.8%	0.7%	0.0		46,620	7,620	5,760	0	0	944	374	55	12	81	34	69.3	77.6		-0.5					72.8	64.3			69.8	56.7			64.9	54.8		
Channel Islands Boulevard																																												
Rice to PCH		4	12	0	22,000	40	75	0	-5	1.8%	0.7%	0.0		17,094	2,794	2,112	0	0	346	137	20	4	30	12	67.4	76.3		-1.6					60.8	53.0			57.9	45.4			53.0	43.5		

[1] Distance is from the centerline of the roadway segment to the receptor location.

ON-SITE TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Project Number:
Project Name: Sakioka Farms

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Source of Traffic Volumes: X
Community Noise Descriptor: L_{dn}: ____ CNEL: X

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Analysis Condition Roadway Name / Roadway Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	Distance from Centerline of Roadway: CNEL at 100 Feet	Distance to Contour: 70 CNEL	Distance to Contour: 65 CNEL	Distance to Contour: 60 CNEL	Calc Dist
Existing Traffic Volumes												
101 Freeway												
South of Rice/Santa Clara Interc	6	20	133,000	60	0	1.8%	0.7%					100

Roadway Segment	Traffic Volumes: Day	Eve	Night	MTd	HTd	MTe	HTe	MTn	HTn	Ref. Energy Levels: A	MT	HT	Dist Adj	Ld: A	MT	HT	Total	Le: A	MT	HT	Total	Ln: A	MT	HT	Total	DISTANCE TO CONTOUR (2): 70 CNEL	65 CNEL	60 CNEL
South of Rice/Santa Clara Interc	103,341	16,891	12,768	2,093	830	121	26	180	75	74.2	80.8		-2.7	77.6	67.4			74.6	59.9			61.4	58.0					

[1] Distance is from the centerline of the roadway segment to the receptor location.
"-" = contour is located within the roadway lanes.

Appendix K
Water Supply Assessment

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List of Abbreviations, Acronyms, and Definitions

AC	acre
AF	Acre-feet, equal to approximately 325,000 gallons
AFY	Acre-feet per year
AWPF	Advanced Water Purification Facility
BDCP	Bay-Delta Conservation Plan
BMP	Best Management Practice, one of the water conservation methods
CEQA	California Environmental Quality Act
CFS or cfs	Cubic feet per second
CII	Commercial/Industrial/Institutional
City	Unless otherwise specified means the City of Oxnard
CMWD	Calleguas Municipal Water District that wholesales water to the City of Oxnard and receives water from MWDSC.
CRA	Colorado River Aqueduct
CURB	City Urban Restriction Boundary
CUWCC MOU	California Urban Water Conservation Council Memorandum of Understanding
Demand Management Program	Same as water conservation program to reduce the demands
Drought	An extended period with below average rainfall
EIR	Environmental Impact Report
ESA	Environmental Species Act

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ft	feet
GMA	Fox Canyon Groundwater Management Agency
gpad	gallons per acre per day
GPCD	gallons per capita per day
GPM	gallons per minute
GREAT Program	Groundwater Recovery, Enhancement and Treatment Program. A program for creating additional water supply for the City of Oxnard.
HGL	Hydraulic grade line
IID	Imperial Irrigation District
LTS	Long-term seasonal storage program of water deliveries by MWDSC
MGD	million gallons per day
mg/l	milligrams per liter
MWDSC	Metropolitan Water District of Southern California
O-H	Oxnard-Hueneme System operated by the United Water Conservation District
Overdraft	For the groundwater basin and as defined by OCWD: "The amount by which basin pumping exceeds natural replenishment"
OWTP	Oxnard Wastewater Treatment Plant
Preferential Right	This is a term from Section 135 of the Metropolitan Water District Act that refers to each member agency's right to purchase water based on that agency's tax assessments and other payments for capital improvements, excluding water purchases.
SB 221	Legislation requiring completion of this Water Supply Verification
SB 610	Legislation requiring completion of this Water Supply Assessment
SDCWA	San Diego County Water Authority
sq. ft.	square feet
SWP (State Water Project)	A water storage and delivery system of reservoirs, aqueducts, power plants and pumping plants. Its main purpose is to store water and distribute it to 29 urban and agricultural water suppliers in Northern California, the San Francisco Bay Area, the San Joaquin Valley, the Central Coast, and Southern California.
TDS	Total dissolved solids
ULFT	Ultra-Low Flush Toilet
UWCD	United Water Conservation District that recharges surface waters into the groundwater basin and then pumps groundwater for delivery to the City of Oxnard.

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UWMP (Urban Water Management Plan)	A plan that describes and evaluates sources of supply, reasonable and practical efficient uses, and reclamation and demand management activities. The plan addresses measures for residential, commercial, governmental, and industrial water demand management and includes a strategy and time schedule for implementation.
WSA (Water Supply Assessment)	A report required by Senate Bills 610 and 221 addressing the availability of overall water supply available to any development project of over 500 residential units or equivalent development of shopping centers, business establishments, or commercial buildings.
WSDM	MWDSC's Water Surplus and Drought Management Plan
WW	Wastewater

Section 1: Introduction and Background

1.1 Purpose and Acknowledgment

This report addresses the requirements of Section 10910 of the California Water Code (Senate Bills 610 [SB 610] and 221 [SB 221]) for the proposed "Sakioka Farms" development in the City of Oxnard (City). The Code requires a Water Supply Assessment (WSA) be prepared for any residential development project of over 500 dwelling units, or equivalent water demand for shopping centers, business establishments, and commercial developments.

This assessment builds on the information provided in the City's 2005 Urban Water Management Plan (UWMP), prepared by Kennedy/Jenks Consultants (Kennedy/Jenks) for the City. However, water supply and demand values have been updated with recent changes to the City's water supply strategies.

It is noted that this WSA addresses the overall water supply available to the City to meet the demands of existing customers, the Sakioka Farms development, and other future demands. The WSA does not address the water delivery system within the City since the focus is on the overall water supply.

The WSA reviews and makes a finding of reasonable sufficiency of water supplies that either are available or will be available to the City to meet future demands for the period 2006 to 2026. The requirement is a determination for a 20-year period, although the analysis in this WSA extends to 2030 to be consistent with the 2005 UWMP and current water system master planning.

In addition to City staff prepared updated water supply projections beyond that contained in the City of Oxnard 2005 UWMP, two (2) documents were used as the basis for the analysis presented in this WSA:

- City of Oxnard 2005 UWMP, prepared by Kennedy/Jenks for the City of Oxnard in 2005.
- City of Oxnard Water Supply Strategies 2006-2016, prepared by Kennedy/Jenks for the City of Oxnard in 2007.

1.2 Requirements of Water Code - SB 610 and SB 221

Various sections of the California Water Code, Business and Professional Code and Public Resources Code were revised as a result of SB 610 (Costa) and SB 221 (Kuehl). Both were signed by the Governor in October 2001. Copies of SB 610 and SB 221 are included in Appendix A. The requirements are quite similar with several exceptions as noted in Table 1-1.

SB 610 is summarized in the following paragraph.

If a project is subject to the California Environmental Quality Act (CEQA) as determined by a county or city and is a qualifying industrial park project that occupies more than 40 acres of land as indicated above, then the water supplier must prepare an SB 610 WSA. The newly-amended statute also calls for the assessment to be submitted before the lead agency begins to prepare the environmental document required for a project. In the case of the Sakioka Farms development, the findings of this WSA will be incorporated into the environmental document for the project.

- The analysis must examine water supply, entitlements, water rights, or water service contracts relevant to serving the proposed development. Where there are deficiencies, the water purveyor must address in the WSA a plan for acquiring additional water supplies. The determination of the adequacy of available supplies must consider an average water year, a single dry water year, and multiple dry water years.

- Each water demand management measure must be discussed in the WSA, unless the Agency is a member of the California Urban Water Conservation Council (CWUCC), in which case the Agency may provide their Annual BMP reports in lieu of the discussion. These measures need to consider economic and non-economic factors including environmental, social, health, customer impact and technological factors. Cost benefit analyses must be performed, where applicable.

- Supply determinations must include groundwater use and any basin limitations.

For water systems that rely at least partially on groundwater, such as is the case for the City, there are additional obligations, several of which are described below:

- Copy of the Groundwater Management Plan. The Fox Canyon Groundwater Management Agency (GMA) adopted an updated Groundwater Management Plan in May 2007.

- Description of the groundwater basin(s).

- Copy of the court decree if a basin is adjudicated. The City receives water from the Fox Canyon Groundwater Basin, and for that basin there is no adjudication; however, the basin is managed by the GMA, established by a state legislative act.

- Description of measures to eliminate overdraft conditions. This has been accomplished through reductions in groundwater pumping allocations.

- Description and amount of groundwater to be pumped.

- Vulnerability to seasonal or climate changes – average year, single dry-year, and multiple dry-years.

Water conservation is to be covered in the WSA, including a description of the demand management measures, an implementation schedule, and an estimate of the reductions in demand as a result of conservation.

With respect to financing, the WSA is to cover funding available as well as a description of all the projects that are significant to water supply.

Within this report, in the determination of sufficiency for a 20-year period, there are certain programs and capital improvement projects by the public water agencies that have yet to be implemented or constructed. They are, nevertheless, important for a finding of sufficiency. Certain projects, such as the various components of the Groundwater Recovery Enhancement and Treatment (GREAT) Program are discussed and included in examining the projected water supply for the City. Additionally, the findings of sufficiency for imported water from Metropolitan Water District of Southern California (MWDSC)/Calleguas Municipal Water District (CMWD) assume certain programs that are yet to be constructed or fully implemented.

The existence of programs and projects within the water agencies planning and capital improvement programs is an indication of the stewardship of the agency boards and the City Council to implement programs to meet water supply requirements. In some cases, it can be expected that the actually implemented programs or projects could vary in minor ways from those currently described in planning documents. It is not judged necessary that all programs or projects planned within the 20-year period be actually funded or underway or under construction in 2005 for inclusion in this document and to be considered in meeting the 20-year water supply needs. However, where programs are essential for a finding of adequacy, they are identified as such.

Table 1-1 summarizes the differences between SB 610 and SB 221. This WSA is intended to also meet the requirements of the SB 221 Verification of Water Supply Sufficiency.

TABLE 1-1
SUMMARY OF DIFFERENCES BETWEEN SB 610 AND SB 221

SB 610 WSA	SB 221 Water Supply Verification	Comments
Applicable to 500 residential units or more and equivalent commercial and industrial projects	Only addresses residential and same 500 unit designation	For purposes of Sakioka Farms, they are the same.
N/A	*Part of the DRE application for public report and true statement of provisions for water*	True statement in total includes a number of other factors – indebtedness, schools, other utilities, airport.
Not addressed – but because part of the environmental process, also part of the Tentative Map approval process	Part of Tentative Map application process	
May be part of the environmental review process for a proposed development	Same	
May use most recently adopted UWMP for substantial evidence	Same	This document incorporates certain text from the UWMP, but also refers to other text portions.

SB 610 WSA	SB 221 Water Supply Verification	Comments
Describe service area, population, climate, demographics – 20 yr period	Not requested	
Water Supply – identified planned water supply	Same	
Need copy of GW management plan and description of groundwater basin(s), GW pumped	Same	Fully documented in the UWMP and also in this report.
Water demands – characterize past and project future, incl. by sector	Not requested	
Reliability Analysis and vulnerability to seasonal or climatic shortage – average, single dry and multiple dry years	Same	
Opportunities for exchanges or water transfers	Not requested	Not a factor – City has no significant exchanges or water transfers to report.
Water Demand Management Measures – 14 BMP's and schedule for implementation and water savings	Not requested	This is not an SB 221 issue.
Future Projects – Describe these as they relate to water supply	Same	
Legal Documentation – provide backup as it relates to water supply. Identify water supply entitlements, agreements, etc.	Same	
If member of CUWCC, submit reports	Not requested	This is not an SB 221 issue.
Document that the project's demands are included in "most recent UWMP"	Same	Demands of the subject development project, along with other proposed development projects and a contingency have been included in the 2005 UWMP.
If there is not a finding of sufficiency, then present a plan	Same	
Not requested	*Address availability of water for agricultural and industrial purposes*	
Not covered	*Not applicable to re-development of an urban area*	

1.3 Proposed Development Project

The Sakioka Farms specific plan area, as identified in the City of Oxnard's General Plan, consists of replacing approximately 430 acres of agricultural land located in the City of Oxnard with light industrial, institutional, commercial, and recreational uses. However, this area has since been divided into two developments: the Sakioka Farms development (subject of this WSA) and the Camino Real Development (subject of a separate WSA). The Sakioka Farms development is located south of Highway 101 and west of Rice Ave.

Figure 1-1 provides the location of Sakioka Farms, along with permitted land uses. As currently proposed, the project consists of:

- An overall development that includes 890 multi-family residential units on 25 acres,
- Approximately 100,000 square feet (sq. ft.) of commercial buildings on 25 acres,
- Approximately 4,630,000 square feet (sq. ft.) of light industrial space on 225.5 acres,
- Approximately 2,500,000 square feet (sq. ft.) of business and research space on 91 acres,
- Approximately 400,000 square feet (sq. ft.) of office space on 20 acres,
- 3 acres of park space and a fire station.

Figure 1-2 illustrates the land use plan for the development. Although, the development may also include an additional 870,000 sq. ft. of light industrial land use in lieu of the residential units and park.

If approved, and as currently proposed, build-out of the project will take approximately ___ years from the approval, with the first units projected for occupancy within a year. [NOTE TO DEVELOPER: PLEASE UPDATE THIS SENTENCE WITH PROJECT SCHEDULE]

A Specific Plan Environmental Impact Report (EIR) is in the process of being developed by Christopher A. Joseph and Associates and a draft is anticipated to be circulated for public review by December 2008. It is expected that the findings of this WSA will be incorporated into the EIR.

1.4 Climate

The City is in the Oxnard Plain, which has a mild Mediterranean style climate, with cool wet winters and mild, dry summers. Temperatures only rarely fall below freezing in winter. Average rainfall is approximately 15 inches per year, mostly during the winter period between December and April.

During the late summer and early fall period, hot, dry Santa Ana winds can create high water demands. Also, during frost days, agricultural growers may use water to prevent their crops from freezing, increasing demands in those early mornings; this will primarily impact the recycled water deliveries as part of the GREAT Program.

Figure 5-2 of the United Water Conservation District's UWMP illustrates historical rainfall during the past 115-year period along with accumulated deficits from the 115-year average. While it is for Santa Paula, it is somewhat indicative of that for Oxnard. It indicates that:

- The low periods have been: 1948 through 1951 (4 years), 1959 through 1961 (3 years), 1972, 1987, 1989 through 1990 (2 years), and 2002.
- The largest accumulative deficit was during the period early 1960's to late 1970's and again in the early 1990's.

In their Regional UWMP, MWDSC indicated their critical periods are:

- Single dry year: 1977
- Multiple dry years: 1990 through 1992

It is noted that the MWDSC dry periods include the impacts of drought beyond the local areas since they receive water from Northern California and the Colorado River.

Section 2: Water Supply Sources

2.1 Overview

The City's current (2008) water supply consists of imported surface water from the Calleguas Municipal Water District (CMWD), local groundwater from the United Water Conservation District (UWCD), and local groundwater from City wells. The City blends water from these three (3) sources to achieve an appropriate balance between; 1) water quality, 2) quantity, and 3) cost. The blend ratio has historically varied, and the City's recent practice has been to maintain an approximate 1:2 blend ratio of imported surface water and groundwater (either from UWCD or City wells). Each of these sources is described in the following paragraphs and summarized in Table 2-1.

TABLE 2-1
CITY WATER SUPPLY SOURCES TO 2030

Sources of Supply	Description	Availability
CMWD- Tier 1 (lower cost than Tier 2)	Imported from SWP.	Reliable now and in future. See Sections 2.2 and 2.12.1 through 2.12.4 for CMWD and MWDSC water reliability programs.
CMWD- Tier 2	Imported from SWP.	Reliable now and in future, with anticipated increase in cost. See Sections 2.2 and 2.12.1 through 2.12.4 for CMWD and MWDSC water reliability programs.
UWCD Sub-allocation	Groundwater pumped from Oxnard Forebay.	Reliable now and in future. See Sections 2.5 and 2.12.5 for UWCD water reliability programs.
M&I Supplemental Water Supply Program	Calleguas Creek water generating groundwater credits through UWCD. Groundwater pumped from Oxnard Forebay.	Reliable now and in future. Current program expected to be replaced with expanded yield. See Sections 2.9.2 and 2.11.4.
City Groundwater Wells	Local groundwater.	Reliable now and in future. See Section 2.6.
GREAT Program; recycled water delivery to in-City customers	Local recycled water.	Recycled Water Backbone System by 2010/2011 See Sections 2.8 and 2.9.
GREAT Program; recycled water delivered to agricultural users and injected in local groundwater basin	Transfer of groundwater pumping credits allow additional pumping form Oxnard Forebay and City Wells.	Initial phase planned for 2010 and then expanded over following 6 to 7 years. See Sections 2.8 and 2.9.

Source: Final Report Oxnard Recycled Water Facilities Plan, May 2007.

2.2 Wholesale/Imported Water Supply – CMWD

To provide for long-range improvement of its water quality, the City annexed to CMWD in February of 1961. CMWD is a member agency of the MWDSC from which it purchases imported water. Imported water supplies originate: a) in Northern California and are conveyed over 500 miles to Southern California through the SWP's system of reservoirs, aqueducts and pump stations, and b) through MWDSC's Colorado River infrastructure. SWP water is filtered and disinfected at MWDSC's Joseph Jensen Filtration Facility in Granada Hills. CMWD receives the treated water from MWDSC via the MWDSC West Valley Feeder and either stores the treated water in Lake Bard for later delivery or feeds the water directly to the Springville Reservoir near Camarillo. The City receives water from Springville Reservoir through the City's Oxnard and Del Norte Conduits that feed the City's five (5) water blending stations.

In 2007, the City purchased approximately 11,420 acre-feet (AF) of water from CMWD. In addition to this, approximately 2,220 AF was distributed directly to the Port Hueneme Water Agency (PHWA). PHWA is responsible for providing water to the City of Port Hueneme, the naval bases at Port Hueneme and Point Mugu and the Channel Islands Community Services District. The 11,420 AF also includes approximately 1,616 acre-feet per year (AFY) for Proctor & Gamble (P&G) a private user which receives unblended water directly from CMWD under an agreement with the City.

The City has an existing agreement with CMWD which provides the City with a current Tier 1 entitlement of 17,379.4 AFY. (See Section 2.11.1 for more details on the purchase order). This water is considered as a firm supply, subject to CMWD overall supply reliability. Tier 1 water corresponds to the amount "contracted for" by the City. It is in essence a capacity reservation and includes the water being delivered to the PHWA. Tier 2 water is normally available to the City; however, the cost per AF is higher. Tier 2 water may be less reliable during periods of extended drought.

Within the City's purchase order amount of 17,379.4 AFY, consideration is made for the following suballocations:

- To P&G - 2,800 AFY
- To Port Hueneme - 3,262.5 AFY
  (per the Three Party Agreement in Appendix E.2)

The net impact of the above is that the City has a firm, minimum of 14,116.9 AFY Tier 1 allocation for its use when the allocation reservation for PHWA is subtracted. It should be noted that it is very unlikely that PHWA will use the entirety of its Tier 1 suballocation given the nature and operation of the PHWA Brackish Water Treatment Facility and its historical use. The City is free to use any unused PHWA CMWD allocation. It is assumed that the full allocation will be used in years up to 2016 when it is needed. Beyond that date (which corresponds to the completion of the second phase of the GREAT Program), it is the City's plan to decrease its reliance on CMWD supplies. Instead there will be increasing reliance on the GREAT Program and its associated facilities. For purposes of this evaluation, however, it is assumed that the City has available up to 14,116.9 AFY from CMWD for its use up to and beyond 2016.

> The City's agreement with PHWA dictates that when water from the UWCD Oxnard-Hueneme (O-H) Pipeline is not available, then the City will make water available from its distribution system as a backup supply to PHWA. The City's current sub-allocation in the UWCD O-H System is 7,625.35. PHWA's UWCD O-H System suballocation is 3,920.71 AFY. For purposes of water supply discussion, it is assumed that the likelihood of the UWCD O-H System not being able to deliver water is relatively remote; were it to happen, it would likely be for a short duration and the City could: (1) increase its deliveries from CMWD, or (2) increase its groundwater pumping and later decrease pumping and increase CMWD deliveries.

Both MWDSC and CMWD are undertaking a variety of programs to maintain the reliability of imported water deliveries. Further, both have issued current reports indicating a firm commitment to providing fully reliable water supplies over the next 20 years. Accordingly, for City planning purposes, the CMWD Tier 1 allocation is considered to be a firm long-term water supply. Section 2.12 provides a more detailed discussion of the reliability of this supply.

2.3 Groundwater Basin Description

Sections 2.3 and 2.4 describe groundwater sources of supply for the City. The first is groundwater from the UWCD and the second is groundwater from the City's own wells.

Figure 2-1 shows the general cross section for the Oxnard Plain Aquifers including the offshore and onshore portions. With respect to the latter, there are two (2) primary aquifer systems of importance to the City:

1. Upper Aquifer System (UAS): The UAS consists of the semiperched zone, the Oxnard Aquifer, and the Mugu Aquifer.

2. Lower Aquifer System (LAS): The LAS is comprised of the Hueneme, Fox Canyon, and Grimes Canyon Aquifers.

Groundwater, whether from City wells or from UWCD, comprises the greatest portion of the City's water supply – both currently and as projected in the future.

Water from UWCD is from the O-H Wells (where O-H refers to the Oxnard-Hueneme system) located in the part of the aquifer system know as the Oxnard Forebay or the Montalvo Forebay. The Forebay is an important part of the aquifer system, where the aquifers come together and are unconfined. The Forebay is recharged from the Santa Clara River in its riverbed and by river water that is diverted to UWCD's spreading basins. The Forebay is hydraulically connected to the other aquifers in the Oxnard Plain Basin. Thus, the primary recharge to the Oxnard Plain Basin is from the underflow from the Forebay rather than from deep percolation of water from surface sources on the plain.

Other groundwater areas of the Oxnard Plain are confined, meaning the groundwater aquifer is overlain by a clay layer. Above this layer there is perched water but this water is of poor quality and is not used as a water supply.

The Oxnard Aquifer is a semiperched zone and is the uppermost water-bearing unit in the area. It is composed of fine to medium-grained sand with interbedded silty clay lenses, with an average thickness of about 30 feet (ft) to a maximum of 80 ft. Immediately below the semiperched zone and overlying the Oxnard Aquifer is a confining bed, or clay cap, consisting primarily of silty and sandy clays, with an average thickness of approximately 35 ft (Kennedy/Jenks, 1994) and with a maximum thickness of 150 ft.

The Oxnard Aquifer, part of the Upper Aquifer System and the most important water source on the Oxnard Plain, is composed of fine to coarse-grained sand, gravel, and boulder deposits. Within the areas, the aquifer is a single unit of high permeability with no prominent silt or clay lens interruptions and has an average and maximum thickness of about 91 and 150 ft, respectively, at an average depth of 100 to 180 ft below grade. Permeability, or the ability to transmit water, of this aquifer ranges from 1,700 to 2,000 gpd per square foot (gpd/ft^2). The transmissivity of this aquifer is significant, and typically ranges from 100,000 to over 400,000 gpd/ft^2 (Kennedy/Jenks, 1994).

Immediately below the Oxnard Aquifer, and separating it from the Mugu Aquifer, is an aquitard composed of silty clay with some interbedded sandy clay lenses. The average thickness of this aquitard is approximately 30 ft, although the maximum thickness has been reported to be 150 ft. The material which forms the Mugu Aquifer is fine to coarse-grained sand and gravel with some interbedded silty clay. The average thickness of the water-bearing zone is approximately 110 ft. Permeability at the Mugu Aquifer ranges between 1,900 and 2,200 gpd/ft^2. In the forebay area where the Santa Clara River enters the Oxnard Plain near Saticoy and near the Mugu Lagoon, the Mugu Aquifer merges with the Oxnard Aquifer. The Mugu Aquifer is reported to be in hydraulic continuity with the ocean, although there is no evidence of seawater moving laterally within the zone (Kennedy/Jenks, 1994).

Underlying the Mugu Aquifer is an aquitard composed of silty clay that reaches a maximum thickness of 80 ft within the Oxnard Plain. This aquitard is continuous except in the forebay area, where the Hueneme Aquifer merges with the other groundwaters. The Hueneme Aquifer is composed of irregularly interbedded sand, silt and clay, with some gravel, ranging in thickness from 100 ft within the City of Port Hueneme to about 300 ft north of the City. Permeability for this water-bearing zone is estimated to be 400 to 600 gpd/ft^2. This aquifer is reported to be in hydraulic continuity with the ocean. The Hueneme Aquifer is separated from the underlying Fox Canyon aquifer by an aquitard composed of silt and clay and which is absent only where the Fox Canyon Aquifer merges with the Hueneme Aquifer in the northern portion of the forebay area. The maximum thickness in the basin is approximately 170 ft (Kennedy/Jenks, 1994).

The Fox Canyon Aquifer is composed of fine to coarse-grained sand with gravel stringers and interbedded silt and clay. With a maximum thickness of approximately 550 ft in the Oxnard Plain, permeability of this water-bearing zone range from 200 to 400 gpd/ft^2. The aquitard that separates the Fox Canyon and the underlying Grimes Canyon Aquifers is composed of silt and clay, and attains a maximum thickness of about 40 ft in the Oxnard Basin. The Grimes Canyon Aquifer is composed of fine to coarse-grained materials, with a maximum thickness of more than 1,500 ft and corresponds in area to the Fox Canyon Aquifer (Kennedy/Jenks, 1994).

The City has wells that take water from both the Upper Aquifer System and the Lower Aquifer System as further described in Section 2.6.

The groundwater levels in the Oxnard Plain aquifers change considerably from year to year depending on Santa Clara River recharge and total pumping quantities. The historical water levels for key wells are shown on Figure 2-2.

2.4 Fox Canyon Groundwater Management Agency

The Fox Canyon Groundwater Management Agency (GMA) was created in 1982 at the direction of the State Water Resources Control Board to address ongoing overdraft and seawater intrusion into the Oxnard Plain Pressure Basin. The purpose of the GMA is to manage the region's groundwater supply by protecting the quantity and quality of local groundwater resources and by balancing the supply and demand for groundwater resources.

The GMA has jurisdiction over groundwater pumping for all of the land which overlies the Fox Canyon Aquifer. This encompasses approximately 185 square miles and includes the Oxnard Plain Forebay and the Oxnard Plain Pressure Basins underlying most of the City. Figure 2-3 indicates the boundaries of the GMA's jurisdiction.

While the basin is not an adjudicated basin, the practical impact of the GMA is to have a basin fully managed as if it were adjudicated.

The GMA was formed in 1982 by Act 2750 passed by the California Legislature, and included in Appendix E. The agency monitors and controls pumping within the GMA boundaries. Preceding this Act was State Assembly Bill No. 2995 passed by the California Legislature in September 1982. Specifically, the legislation allows the agency to perform the following functions:

"Planning, managing, controlling, preserving and regulating the extraction and use of groundwater within the agency (§§ 402, 403). May collect data and carry out investigations (§ 501). May recommend and encourage wastewater reclamation and reuse projects that contribute to good groundwater management (§ 503). May control extractions from the Oxnard and Mugu aquifers with the goal of balancing supply and demand within the basin by year 2010 (§ 601); develop groundwater management plan for the Grimes, Hueneme, and Fox Canyon basins and may limit future extractions, considering the effects of seawater intrusion and other factors (§§ 313, 602). If the board determines that groundwater management activities are necessary to protect an aquifer, it may require conservation practices, control groundwater extractions and extraction facilities, pursue legal actions to prevent unreasonable use and unreasonable methods of use that adversely affect the groundwater supply, impose spacing limitations on new extractions, establish operating procedures for extraction facilities including rotation pumping requirements (§ 701). May require registration of extraction facilities and installation of water flow measuring devices (§§ 801, 804). May require reports of annual extractions (§ 810)."

Most importantly, the GMA may establish uniform groundwater extraction charges (§§ 1001, 1003). This is a mechanism intended by the GMA to limit the amount of groundwater pumping to amounts that meet basin objectives. This authority was granted by SB-747, which amended and added to AB-2995 to allow extraction allocations for each water well when it was approved in June 1991.

The governing board consists of five members, one selected from each of the following: 1) the County of Ventura Board of Supervisors; 2) United Water Conservation District; 3) the cities that at least partly overlie the Fox Canyon Aquifer; 4) the special districts and mutual water companies that at least partly overlie the Fox Canyon Aquifer; 5) by the four (4) members described above (§ 401).

2.4.1 GMA Programs

In 1985, a plan for management of the Lower Aquifer System (LAS) and Upper Aquifer System (UAS) within the Fox Canyon GMA boundaries was adopted. Major elements of the UAS Plan include the following:

1. Ventura County Ordinance No. 3739: This existing County ordinance prohibits the construction, repair or modification of UAS wells in areas where increased extractions would increase the overdraft and the rate of seawater intrusion in the Oxnard Plain.

2. Completion of the Seawater Intrusion Abatement Project through improvement of the Vern Freeman Diversion and operating the project under criteria developed to ensure proper water allocation.

3. Annual monitoring to determine the effectiveness of the Vern Freeman Project.

The revised Draft Basin Management Plan, dated 1997 is included in this report as Appendix F. The GMA Board recently updated its Groundwater Management Plan and adopted the Final plan in 2007, which is included in this report as Appendix D. Section 2.4.5 provides a more detailed discussion of the Groundwater Management Plan.

Major elements of the LAS Plan include the following:

1. Monitoring for seawater intrusion in the LAS near the coastline.

2. Contingency plans in the event seawater intrudes into the LAS. These plans call for conservation and reclamation efforts, increased monitoring and pumping restrictions.

3. Pumping restrictions in the North Las Posas Basin to prohibit expansion of all types of water use to land on or topographically above the LAS outcrop or to other nonwater-bearing areas. The restriction regulates the drilling of new LAS water wells and use of groundwater in the North Las Posas Basin to ensure that adopted GMA groundwater pumping projections are not exceeded.

4. Monitoring throughout the GMA by requiring semi-annual reporting of metered extractions. Results are used to verify water use amounts.

Annual monitoring and the findings of the United States Geological Survey's Regional Aquifer-System Analysis (RASA) study indicate the UAS is now balanced with respect to seawater intrusion and overdraft impacts. In response to these findings, GMA staff recommended the changes to the 1985 Management Plan and recommended that the County of Ventura adopt Ordinance 4184. Ordinance 4184 requires new wells in Sealing Zone III (located in the Oxnard Plain Pressure Basin) to comply with the 1985 Management Plan.

Well permits in Sealing Zone III are not to be issued for the replacement of wells, or construction of new wells perforated in the LAS unless the GMA Executive Officer determines one or more of the following conditions apply:

1. The UAS in the close proximity of the proposed well is in overdraft.

2. The UAS in this vicinity produces water of a quality that is inadequate for the intended domestic or irrigation use.

3. The proposed UAS well location is in an area sensitive to seawater intrusion.

This management change has not significantly impacted the City because of the majority of its operating groundwater wells are located in the UAS. Similarly, the majority of UWCD's El Rio groundwater wells also pump water from the UAS.

The GMA has management jurisdiction over almost 1,000 wells, but only about 580 to 620 wells are active in any given year. The average well extracts 230 AFY.

2.4.2 GMA Ordinances

Ordinance No. 8.1, also know as the "Ordinance Code," is a conglomeration of all prior ordinances. It is attached in Appendix C. Passed by the GMA Board of Directors on July 27, 2005, it became effective on September 16, 2005 after expiration of the 35-day public review period for the CEQA Notice of Exemption filed on August 12, 2005. The main goal of the ordinance is to bring the basin to safe yield for all uses by 2010.

Requirements for agricultural pumpers and for Municipal and Industrial (M&I) pumpers have been established in the ordinance. An agricultural water well operator is required to be 80 percent efficient when considering evapotranspiration rates (Eto) and crop factors, when an operator lacks enough historical allocation for the current crop being grown to avoid penalties. Additionally, M&I pumpers have had 15 percent cutbacks in their baseline and historical allocations to date with another 5 percent cutback expected beginning in 2009. However, this additional 5 percent cutback would not be imposed on pumpers that can demonstrate a supplemental water source to offset the magnitude of the cutbacks. The City (as discussed in Section 2.4.4) is currently in the process of obtaining approval for such a project and thus is not subject to this additional 5 percent cutback.

The GMA does not prohibit pumping beyond these allocations, however, extractions beyond the current pumping allocation (with reductions) are subject to a surcharge. If pumpers utilize less than their pumping allocation, conservation credits are accrued. Similarly, if "foreign water" (including recycled water generated through the GREAT Program) is recharged into the aquifer, storage credits are accrued, with prior GMA approval. Credits can be utilized at a later date or, can be transferred to other parties with the approval of the GMA Executive Officer. Under Ordinance 8.1, Section 5.7.2.1, credits earned as a result of agricultural use cannot be transferred to an M&I Provider, Operator, or User unless specifically approved by the GMA Board.

Unused groundwater allocation (or conservation credits) can be accumulated and used in future years to avoid the imposition of the GMA surcharge. As discussed in Section 2.4.5, the City has accumulated additional allocation from conversion of agricultural lands to M&I uses. In addition, adjustments and transfers of groundwater extraction allocations and credits are allowed under GMA Ordinance 8.1.

2.4.3 GMA Agricultural Conversion Policy

Agricultural use represents on the order of 70 percent of the total water use in the GMA territory. Agricultural users are given both an allocation system and an irrigation efficiency program that guarantees each user will have sufficient access to agricultural water as long as they demonstrate their practices meet industry efficiency standards, as described above.

When irrigated agricultural land changes to M&I use, a preset groundwater extraction allocation is transferred to the M&I water supply provider. The preset amount is 2 AFY per acre of converted agricultural land. Any remaining amount of the historic extraction allocation, above 2 AFY/acre, that may have been assigned to agricultural land that is transitioning to municipal use is eliminated. (This is yet another GMA tool to reduce overall groundwater use within the GMA.) The GMA also allows the assignment of an extraction allocation from one M&I operator to another. Development of the Sakioka Specific Plan would result in the conversion of 152.3 acres of agricultural land to urban and open space uses. It is likely that any existing active wells within the specific plan area would no longer be used for agricultural irrigation and the groundwater pumping rights associated with the property would be transferred to the City. Thus, approximately 305 AFY of historic extraction allocation is currently attributable to the land for agriculture and will be transitioned to municipal use. The transfer of the groundwater allocation to the City for urban uses is not expected to result in a significant impact to agricultural water supply, as it would follow the Fox Canyon GMA's allocations transfer restrictions.

The City's GREAT Program will improve the reliability of agricultural access to water by providing a very high quality, reliable supply that will supplement local groundwater.

2.4.4 GMA New Policies

At a March 2008 meeting, the GMA adopted a new policy regarding potential exemption from further cutbacks. A copy of this resolution is provided as Appendix C. The new policy would allow any pumper to be excused from the next GMA cutbacks if they bring a supplemental water source that offsets the magnitude of the cutbacks. The City's participation in the next increment of the M&I Supplemental Water program qualifies. Thus, the City will be excused from further cutbacks.

2.4.5 GMA Funding and Allocations

To fund its activities, the GMA collects an annual charge (per AF of pumped water) from all pumpers within its boundaries. Prior to 2004, the maximum extraction charge was capped at $3.00 per AF pumped. Currently, the extraction charge is $4.00 per AF (Resolution 2004-9). State Legislation, AB No. 2734 in 2004, increased the upper limit to $6.00 per AF.

The GMA cutbacks are intended to bring the aquifer into balance by 2010. A pumper, including the City, can accrue GMA credits if they pump less than the allocation in any one (1) year. If a particular pumper does not have credits and pumps more than their allowance in a particular year, they must pay a penalty, which is currently set at $725 per AF. Few penalties have been paid as the extractors have adapted to their allocations.

The City has two (2) existing allocation pools: one (a suballocation) held in trust through UWCD and one for the City's own wells. Each of these allocations is discussed below. The City will also receive additional transferred groundwater allocations as allowed by Section 5.3.3 of Ordinance 8.1 as agricultural land within the City's planning area is converted to municipal and industrial uses consistent with the City's General Plan, and extraction allocations associated with existing M&I groundwater wells are transferred to the City. These groundwater allocations are considered to be reliable future water sources.

2.4.6 GMA Groundwater Management Plan

The GMA operates under the guidelines of a "Groundwater Management Plan," Appendix D, prepared by the GMA and last updated in July 2007.

The main management strategies in the Groundwater Management Plan include reducing local groundwater pumping in areas that are difficult to recharge and prone to localized over-pumping. Alternatively, surface water, foreign water (including recycled water), or groundwater from easily recharged areas will be delivered to the stressed areas. In turn, the conservation credits developed from the reduced pumping in the stressed areas are transferred for use in and around the Oxnard Forebay Basin. Both the City's GREAT Program (see Section 2.9.1) and the M&I Supplemental Water Program (See Section 2.9.2) are consistent with this strategy.

The following impacts to the City's water supplies from the GMA Groundwater Management Plan are as follows:

- The City will maintain its groundwater allocation and credits through both the UWCD O-H Pipeline and City groundwater wells (see Section 2.5).
- The City will accumulate groundwater pumping credits when the full UWCD or City wells allocation are not used in any given year.
- The City will maintain its additional groundwater from the M&I Supplemental Water Supply Program, subject to temporary reductions associated with significantly depressed groundwater levels in the Oxnard Forebay.
- The City could accumulate additional groundwater associated with the implementation of the M&I Supplemental Water Supply Program Augmentation, currently expected to be available mid-2008.
- The implementation of the City's GREAT Program is the single most important element in achieving the GMA Management plan objective of maintaining the long-term reliability and integrity of the aquifers within the GMA jurisdiction.

2.5 Groundwater – UWCD

UWCD currently provides a portion of the City's groundwater supply, through its El Rio Wellfield and Oxnard-Hueneme (O-H) Pipeline System. This arrangement has been in operation since 1954, and was formalized in the 1996 Water Supply Agreement for Delivery of Water through the Oxnard-Hueneme Pipeline (included in Appendix E.1). UWCD holds a pumping sub-allocation for all users of the O-H Pipeline, which includes the City, the PHWA, and a number of small mutual water companies.

UWCD diverts Santa Clara River water at the Vern Freeman Diversion Dam southeast of Saticoy, provides some of the diverted water to agricultural irrigators on the Oxnard Plain, and delivers the rest to the Saticoy and El Rio Spreading Grounds. Water percolated in these spreading basins recharges the Forebay to the Oxnard Plain. The eleven (11) wells of the El Rio Wellfield then extract the water and deliver it to the O-H users. Of the eleven (11) wells, three (3) extract water from the LAS, and the remaining eight (8) extract water from the UAS. The El Rio Wellfield has sufficient active pumping capacity to supply the peak O-H pipeline capacity of 53.0 cubic feet per second (cfs). Water extracted by these wells is delivered to the El Rio Pumping Station, disinfected, and pumped through the O-H Pipeline to each of the O-H customers. UWCD built the O-H system in 1954 to move municipal groundwater extraction away from the coastal areas subject to seawater intrusion. The O-H Delivery System consists of 12 miles of transmission pipeline.

UWCD also holds conservation credits accrued by the O-H contractors, including the City at the end of 2006, the City's balance of groundwater credits through UWCD was approximately 7,314.27. (Reference: Appendix F). This includes direct credits as well as sub-allocation credits through UWCD. As noted above, these credits are used to supplement existing groundwater supplies (existing GMA pumping allocation).

Table 2-2 shows the current O-H System sub-allocation and credit amounts for the City, as of December 31, 2006. The City has not yet released its groundwater summary report for the 2007 calendar year.

TABLE 2-2
UWCD SUB-ALLOCATIONS AND CREDITS (AFY)

	Allocation	Credits
City	7,709[a]	7,314

Source: Hopkins Groundwater Report 2007 (Appendix F)
Notes: (a) Allocation is after 15 percent reduction of the historical 9,070 AFY of allocation.

Delivery capacity is derived through a Water Delivery Contract with UWCD. This contract specifies the capacity each user has in UWCD's facilities. Per the terms of the Water Supply Agreement for Delivery of Water through the O-H Pipeline, the City's peak capacity is 26.75 cfs.

For City Planning purposes, the UWCD allocation is considered to be a fixed, firm water supply.

The City's purchased volume of water from UWCD in recent years is shown in Table 2-3:

TABLE 2-3
CITY WATER PURCHASES FROM UWCD

Year	Amount Purchased
2001	6,995 AF
2002	8,826 AF
2003	10,010 AF
2004	5,225 AF
2005	4,200 AF
2006	4,985 AF
2007	16,632 AF

UWCD and the O-H users amended the Water Supply Agreement in 2002 to clarify certain methods used to set the annual O-H System water pricing.

2.6 Groundwater – City Wells

As indicated in Section 2.3, local groundwater is generally extracted from the aquifers of the Oxnard Plain Groundwater Basin. The Oxnard Plain Groundwater Basin is generally made up of two aquifer systems known as the UAS and the LAS.

The City has 822.468 AFY of GMA baseline allocation, 8,415.984 AFY of historical allocation (after 15 percent reduction), and 1,487.798 AFY of transferred allocation (after 15 percent reduction) for a total of 10,726.25 AFY of groundwater allocation (after 15 percent reduction) as of December 31, 2006. The City can pump that amount (plus its O-H System allocation) each year without penalty. No scheduled further reductions in City allocation is expected as a result of the new GMA policy discussed in Section 2.4.3.

Appendix F presents the result of a study by Hopkins Groundwater Consultants addressing City groundwater allocation and credits. In 2003, the City had a groundwater credit balance of approximately 22,000 AF. From year-to-year, the City may either maximize its groundwater use, based on quality, cost and water availability considerations or increase its CMWD deliveries and relax its groundwater pumping to increase its credit balance. As of the end of 2006 there remains approximately 12,294 AF in credits. Given the anticipated growth in demand discussed below, the City expects to reduce this credit balance over the next few years until the GREAT Program initial phase becomes operational in 2010 to 2011.

Because the reductions in allocation are designed to bring the GMA within its safe yield, the City's groundwater allocations are considered to be reliable future water source. Thus, groundwater pumped from City wells is considered a firm water supply for planning purposes.

The City currently has three (3) active wells and three wells under construction at Blending Station No. 1, and four (4) additional active wells at Blending Station No. 3. Several wells at Blending Station Nos. 1, 2 and 3 have been recently destroyed and are not considered as part of this report. Active Well Nos. 22 and 23 are UAS wells and Well No. 20 is an LAS well. The total pumping capacity of these wells is approximately 9,000 gpm. The approximate pumping capacity of the three (3) new UAS wells at Blending Station No. 1 is expected to be 8,200 gpm.

The approximate pumping capacity of the four (4) active UAS wells at Blending Station No. 3 is 9,800 gpm. The pumped water is mixed (blended) with the imported water at the blending stations. Groundwater pumping capacity is a function of aquifer condition, as well as the condition of the well, pumping equipment, and groundwater levels. The City's groundwater production, and for comparison the production from other sources, for the period from 1995 to 2007, are summarized in Table 2-4.

TABLE 2-4
CITY WATER PRODUCTION (AF)

Year	City Wells	UWCD	CMWD	Total
1995	2,800	2,200	16,860	21,860
1999	-	10,200	14,250	24,450
2000	5,320	6,420	14,752	26,492
2001	7,021	5,853	13,215	26,089
2002	6,971	7,067	13,170	27,208
2003	8,878	8,834	11,303	29,015
2004	12,743	3,823	11,717	28,283
2005	12,933	3,159	13,472	29,564
2006	14,056	4,001	12,027	30,084
2007	440	16,630	11,420	28,490

2.7 Interconnections

Currently, the City has no interconnections with other water purveyors. The City is examining an interconnection with the City of Ventura. That interconnection would, if constructed, be only for emergency sources of supply, as CMWD water cannot be exported to Ventura's service area. This is because Ventura is not a member agency of CMWD.

2.8 Recycled Water and Desalinated Water

Currently, the City does not supply recycled or desalinated water. However, they are both key components for the future water supplies.

The existing Oxnard Wastewater Treatment Plant (OWTP) currently produces approximately 20 million gallons per day (MGD) of secondary treated wastewater and discharges the effluent to the Pacific Ocean through an ocean outfall. In an effort to identify a project that could take advantage of the water reclamation potential from the OWTP, the City completed a Water Reclamation Master Plan in 1993. In response to recommendations included in the 1997 progress report titled "Oxnard Water Reclamation Project Initial Implementation Elements of the Water Reclamation Master Plan," and with input from CMWD, UWCD, and GMA, City staff and the City's engineering consultant developed a conceptual water recycling program.

City staff further refined the proposed water recycling program through the development of the GREAT Program. A report titled the "GREAT Program Advanced Planning Study" (Kennedy/Jenks, 2002) was presented to City Council, and City staff was directed to pursue further development of the GREAT Program. A summary of the GREAT Program is included in Section 2.9.1. The GREAT Program will feature:

- An Advanced Water Purification Facility (AWPF), located in the vicinity of the OWTP, to treat a portion of the OWTP's secondary effluent to produce a high quality recycled water, using reverse osmosis, multi-filtration process. The water will exceed the State's Title 22 requirements for recycled water.

- An M&I recycled water system, initially sized for 1,275 AFY.

- A recycled water system for delivery of water to: agricultural properties outside the City; groundwater injection to prevent seawater intrusion; groundwater injection for future extraction; and direct delivery within the City to offset potable water demand.

The City is currently planning for two types of recycled water systems:

1. <u>GREAT Program – Recycled Water for Agricultural Customers.</u> As described in Section 2.9.1, the City is planning for a major recycled water program to serve agricultural customers in the Pleasant Valley and south Oxnard Plain area.

2. <u>M&I Recycled Water.</u> This program will take water from the AWPF (same facility that will provide recycled water for the agricultural customers of the GREAT Program) and transport it to M&I customers. A separate report has been prepared by Kennedy/Jenks (October 2005) to describe the backbone pipeline system. The executive summary of the report is provided as Appendix H. The pipeline will leave the AWPF via a pumping station and will extend approximately 42,000 ft to the RiverPark Development north of the 101 Freeway. (In fact, many RiverPark facilities (parks, school and common area landscape, etc., are dual plumbed and ready to receive recycled water when it is available.) To improve the economics of the project, the City is taking advantage of an abandoned sewer line (Ventura Trunk Sewer) as a conduit through which a high density polyethylene (HDPE) pipe will be slip-lined into the sewer pipe.

   A preliminary list of potential M&I customers includes: the RiverPark Development, the River Ridge Golf Course, up to 12 City Parks and several commercial or industrial customers. The yield will be on the order of 1,250 AFY, slightly below the planned 1,275 AFY capacity. The first deliveries of water are expected by 2011. Where appropriate, the City is requiring all new development projects to design and construct dual piping systems within their project areas to facilitate the delivery of recycled water for non-potable uses within their development areas. Accordingly, the City is currently designing the system to accommodate additional recycled water uses from proposed development projects. Thus, the Phase I system will be designed for more than the 1,250 AFY.

The source of water for the recycled water system is the existing OWTP, which has an average dry weather flow (ADWF) design capacity of 31.7 MGD with provisions for an ultimate ADWF design capacity of 39.7 MGD. The City's wastewater service area is as large or larger than its water service area. There will be sufficient wastewater to support the 17,500 AFY of recycled water planned for the year 2030 condition, demonstrating that there will be more wastewater generated than needed for the GREAT Program, on a yearly basis. Use of recycled water for non-potable uses, such as irrigation of large landscapes and industrial processes, will allow for potable water to be used for true domestic uses.

2.9 Transfers and Exchanges

The City's programs for water transfers and exchanges are focused on the GREAT Program and the M&I Supplemental Water Program both described in the following subsections.

2.9.1 GREAT Program

As discussed in the 2002 GREAT Program Advanced Planning Study, the overall concepts are:

A. Use of Recycled Water in Place of Domestic Water Demand. The OWTP currently produces secondary effluent discharged to the ocean via an outfall. This effluent, if treated to tertiary standards to meet the State's requirements for recycled water, could be used to replace a portion of the City's domestic demands, as addressed by the Recycled Water Backbone System Study (Kennedy/Jenks 2005). The goal is to construct a delivery system and to arrange for customers to take approximately 1,250 AFY of recycled water concurrent with the operational date for the initial phase of the GREAT Program, estimated to be early 2011. A key project is the AWPF located near the OWTP, which will provide the recycled water its final treatment. The initial phase of the AWPF is now planned to produce 6.25 MGD or 6,200 AFY of recycled water assuming it is operational 90 percent of the time, as a result of 2005 studies.

B. Recycled Water Delivered to Agricultural Users in Exchange for Groundwater Credits. The Municipal and Industrial customers identified for the recycled water as described in "A" above only account for approximately 1,250 AFY. When recycled water is delivered to agricultural users or to the seawater barrier, then the volume of recycled water use will substantially increase. Tertiary-treated wastewater meeting Title 22 per State requirements is not suitable for some agricultural use (TDS, chlorides, and boron). Therefore, an AWPF is required. The AWPF will provide additional treatment to a portion of the flow from the OWTP. The AWPF will produce recycled water using reverse osmosis and advanced oxidation.

   The GREAT Program will provide substantial quantities of recycled water to: agricultural customers located primarily in the Pleasant Valley and south Oxnard Plain areas; a seawater intrusion barrier project; groundwater injection wells; or other users within the City. Recycled water delivery will be via existing and new pipelines.

   In exchange for the delivery of recycled water, agricultural customers will transfer groundwater pumping allocation or credits to the City on a one-for-one basis. This will increase the City's ability to pump additional groundwater.

C. Groundwater Injection. Irrigation demands vary throughout the year, with substantially lower demand during the winter months. Therefore, in addition to agricultural and M&I demand for recycled water, this water will be injected on the south Oxnard Plain, acting as a seawater intrusion barrier. This injected water then would allow Oxnard to accrue

GMA credits, which it could redeem later by pumping an equal amount of water from City wells.

D. Groundwater Desalination Facility. The additional groundwater that would be made available to the City, as described in “B” and “C” above, would require additional treatment prior to delivery to the City’s distribution system. The City currently blends it higher TDS groundwater (over 1,000 milligrams per liter [mg/l]) with the lower TDS water from CMWD (350 mg/l) to attain a product water of approximately 700 mg/l. This is done at the City’s blending stations. However, as stated earlier in this report, purchase of CMWD at the Tier 2 rate would likely exceed the cost of GREAT Program water. Therefore, the GREAT Program includes the construction of a GREAT Desalter to treat a portion of the additional groundwater and blend it with the “un-treated” groundwater to an acceptable TDS level.

   The Desalter does not increase the total water supply. It does, however, allow full utilization of the City’s groundwater resources and reduces the City’s overall reliance on imported water sources.

   After consideration of four (4) sites, the GREAT Program APS includes a recommendation to locate the Desalter at Blending Station No. 1, located at the City Water Campus. The facility will have a Phase I capacity of 7.5 MGD with the objective of treating approximately 8,000 AFY, assuming a 90 percent operational factor. Phase II capacity will be approximately 15 MGD.

   The GREAT Blending Station No. 1 Desalter Project, Phase I, is currently under construction. Construction is expected to be complete in mid-2008.

E. Concentrate Collection System. The AWPF and the GREAT Desalter will produce a high TDS by-product concentrate as a result of the treatment process. Discharging this concentrate to the sewer system would increase treatment costs at the OWTP. Therefore, the GREAT Program proposes a concentrate collection system separate from the sanitary sewer system. The collection system can also serve the other industrial customers whose wastewater product is suitable for disposal without further treatment.

F. Concentrate Disposal/Wetlands Development and Enhancement. Two (2) concentrate disposal points were identified in the GREAT Program report – the existing ocean outfall from the OWTP and wetlands in the Ormond Beach area that have been identified for potential restoration and enhancement. With institutional issues to be resolved, the GREAT Program APS report assumed disposal to the ocean outfall.

G. Overall Yield of the GREAT Program. The GREAT Program is projected to produce 6.25 MGD of recycled water in the initial phase and up to approximately 25 MGD ultimately, with the precise capacity to be determined in conjunction with the anticipated water supply and demands needs within the City.

H. Phasing of the GREAT Program. The Executive Summary of the GREAT Program APS, in Appendix B, provides the details of a phased implementation of the GREAT Program elements.

Since the adoption of the GREAT Program, the following activities have occurred:

A. Final EIR/EIS. This document was certified in September 2004. The GREAT Program – Phase 1 was evaluated at the project level and Phase 2 was evaluated at the program level. The EIR/EIS also included the construction of Blending Station No. 5, although this facility was not included in the GREAT Program APS.

B. Bonds and Rate Adjustments. The City issued over $48.6 million in municipal bonds in February 2004 and another $50.0 million in 2006 to fund a significant portion of the GREAT Program. The City has established GREAT Program Finance, Steering and Capital Projects Committees to guide the further steps necessary to create the financing programs necessary to implement the GREAT Program. The City expects to issue another bonding increment in early 2009 to fund the remaining elements of the Phase 1 GREAT Program. In addition, the City has completed the necessary rate models to implement adjustments to the City's water and wastewater rates, along with its water resource development and connection fees, to support the next increment of bond financing. Rate adjustments are expected to be implemented in coordination with the approval of the bond issuance. Financing needs following implementation of the Phase 1, GREAT Program, are relatively minor and will be implemented consistent with requirements for construction of those GREAT Program elements.

C. Recycled Water Backbone System. While not a part of the GREAT APS, but related to the GREAT Program, the City Council considered and approved the "Recycled Water Backbone System Study" (October 2005), which evaluated the technical feasibility of using the abandoned Redwood Trunk Sewer (replaced with a new sewer) for a pipeline to serve recycled water to areas generally located in the northwest portion of the City. In November 2007, the City Council approved this project (along with certification of the associated environmental review), and adopted its mandatory recycled water use ordinance discussed separately in this document. This project will provide up to 1,275 AFY of recycled water to M&I customers. At this time, approximately 1,250 AFY of users have been identified.

D. Recycled Water Program Management. The City prepared the "Recycled Water Program Implementation Plan" to address the institutional issues related to recycled water. The Recycled Water Program Implementation Plan includes the following:
   - Public outreach strategy.
   - Recycled water ordinance and administrative code implementation programs.
   - Grant funding identification.
   - Staff and training.
   - Standard Drawings and details.
   - Cost-sharing for system retrofits.

2.9.2 M&I Supplemental Water Program

The M&I Supplemental Water Program was implemented to: 1) reduce localized overpumping in the Pleasant Valley LAS region, 2) take advantage of the availability of certain foreign (supplemental) water supplies that could be imported into the GMA jurisdiction, and 3) create additional access to local groundwater supplies, primarily for the City. The program uses surface water diverted from Conejo Creek to offset groundwater production in the Pleasant Valley Groundwater Basin. The conserved groundwater allocation is subsequently transferred through a formal process and held in an account by UWCD for future use. The designated location for extractions is the Oxnard Forebay. Delivery can be through the O-H Pipeline or City wells.

The City has presently purchased approximately 7,753 AF of allocation that is held in its M&I account; this may be used anytime, but is subject to drought restrictions. For planning purposes, it is assumed 4,000 AFY is the annual long-term delivery as the M&I Supplemental Water Program is currently conceived. However, as discussed below, by mid-2008, the City expects to have finalized agreements to increase the long-term delivery capability of this program to 9,000 AFY.

The City and other parties responsible for implementing the M&I Supplemental Program are currently developing an augmented version of this program that will yield 9,000 AFY. Agreements for this augmented program are under negotiation. The augmented program and the associated agreements are expected to be completed in mid-2008. A copy of a draft contract for this augmented program is provided as Appendix E.3.

The GMA and UWCD have safeguards in place to limit the pumping in the Oxnard Forebay Basin so that this portion of the aquifer is not stressed beyond its capacity. The M&I Supplemental Water Program allows UWCD to temporarily reduce or suspend deliveries when groundwater levels have dropped below a certain threshold. During these periods, the City can obtain its needed groundwater by shifting its pumping to wells in the Oxnard Plain outside of the Forebay.

In addition, recharge in the Oxnard Forebay from flows released from the Freeman Diversion may be impacted by environmental concerns. If current recharge is reduced in the Forebay because of required fish flows or other reasons, then the Forebay basin may not be able to accommodate pumping at the same magnitude in drier periods. Hopkins Groundwater Consultants, in coordination with UWCD staff, prepared an analysis of the Oxnard Forebay to review the probability that the Forebay would remain above minimum elevation criteria set for the groundwater protections. The results of the analysis indicate that although there are significant demands in the basin, the recharge rate is substantial even in dry periods. Construction of the Freeman Diversion Facility has greatly improved the ability of the basin to refill and should continue to maintain positive basin conditions (Hopkins 2007). More recent modeling by UWCD staff shows that when pumping stress is distributed in the Forebay and in Oxnard wells located on the periphery of the Forebay, Basin conditions remain favorable for increased pumping during essentially all conditions based on historic hydrology.

2.10 Proposed Changes to Water Supply

The City expects to take imported surface water from CMWD up to the Tier 1 allocation of 17,379.4 AFY (which includes the “reservation” for the PHWA and P&G). The City could take additional water from CMWD at the Tier 2 rate; however, this water is more expensive than the City’s other options. In fact, the City may elect to take less than its full Tier 1 entitlement if less expensive local water is available.

With respect to O-H System groundwater from UWCD and the City's groundwater available through its current and future wells, the City's sub-allocation will remain as previously presented, assuming the City finalizes the updated M&I Supplemental Water Program discussed in Section 2.9.2.

The City's pumping allocation will, however, be increased by the transfer of allocation from the recharge activities of the GREAT Program. Further, if recycled water is provided to the City's River Ridge Golf Course and to other in-City uses, the allocation of water will be available for City domestic water purposes.

Appendix F shows estimated groundwater allocations, including what is expected from the GREAT Program. Future water supplies include anticipated water transfers from those undeveloped properties that are in the General Plan or CURB area (area of allowed development within the City).

2.11 Written Contracts or Other Proof of Entitlement

The City's written proof of entitlement to its water supplies are identified by title and summarized in the following subsections. Appendix E includes these water supply agreements.

2.11.1 Imported Water – CMWD

On December 12, 2002 the City executed a "Purchase Order" with the CMWD for the purchase of up to 17,379.4 AFY. The minimum amount taken each year by the City without penalty is 60 percent of the purchase order amount. The purchase order is included in Appendix E.2.

2.11.2 Groundwater – UWCD O-H System

On September 20, 2001, UWCD and the O-H users amended the Water Supply Agreement with Amendment No. 1 (Appendix E.1). The primary changes involved the clarification of certain pricing methodologies. Amendment No. 2, dated July 22, 2003, was implemented at the request of another O-H System contractor and did not impact provisions applicable to the City.

2.11.3 Groundwater – City Wells

The City's groundwater pumping rights are set by the GMA. Section 2.4 includes discussion of that GMA and their responsibility for monitoring and controlling the extractions of groundwater. The City's allocation is on file with the GMA. Appendix F includes documentation of entitlement for groundwater pumping. Section 2.6 includes a discussion of the allocation.

2.11.4 M&I Supplemental Water Supply Program Augmentation

As discussed in Section 2.9.2, the City is currently under negotiations to augment their M&I Supplemental Water Supply Program. A copy of the GMA resolution supporting the M&I Supplemental Water Program, the contract for the current program implementation, and a copy of the Draft Contract for the augmentation are provided as Appendix E.3.

2.12 Water Supply Reliability

This section discusses the reliability of the City's various water sources during periods of drought.

2.12.1 Imported Water Supply – MWDSC Perspective

The City of Oxnard receives imported State water from the CMWD that, in turn, receives its water from the Metropolitan Water District of Southern California (MWDSC).

In its "Report on Metropolitan's Water Supplies, A Blueprint for Water Reliability" dated March 25, 2003, MWDSC concludes that current practices of diversifying water supplies and securing supply reserves allow MWDSC and its member agencies to adjust to changes in demands and supplies and to maintain a high degree of reliability. The report addresses concerns of the Southern California water purveyors receiving MWDSC water in addressing compliance with SB 610 (Costa) and SB 221 (Kuehl), which are embodied in Section 10910 of the California Water Code. The report makes a determination of sufficiency for the next 20 years in accordance with Section 10910 of the Water Code. Further, if all imported water supply programs and local projects proceed as planned, without changes in demand projections, reliability would be assured beyond 25 years, even under a repeat of the "worst" drought.

The MWDSC Report finds "that current practices allow Metropolitan (MWDSC) to bring water supplies on-line at least ten (10) years in advance of demand with a very high degree of reliability." Furthermore, demand and supply comparisons "demonstrate that there are sufficient supplies that can be reasonably relied upon to meet projected supplemental demands and that there are additional reserve supplies that could provide a "margin of safety" to mitigate against uncertainties in demand projections and risks in fully implementing all supply programs under development."

More particularly, MWDSC has documented sufficient currently available supplies to meet 100 percent of MWDSC's member agencies' supplemental water demands for 20 years under average-year conditions, for 15 years under multiple dry-year conditions (with 8 to 26 percent reserve capacity), <u>and</u> for 15 years under single dry-year conditions (with 8 to 25 percent reserve capacity). With the addition of supplies under development, MWDSC will be able to meet 100 percent of its agencies' supplemental water needs under all supply and demand conditions through 2030 with 15 to 20 percent reserve capacity. Reference is made to the MWDSC Report for more detailed discussion.

The MWDSC Report indicates that MWDSC's regional water demand projections are 7 to 11 percent <u>higher</u> than the aggregated projections of MWDSC's member agencies. As stated in the MWDSC Report, "this difference indicates that Metropolitan's supplies developed in accordance with MWDSC's Regional Urban Water Management Plan (UWMP) would provide a measure of "margin of safety" or flexibility to accommodate some delays in local resources development or adjustments in development plans."

The report also concludes that:

- More than 4.0 million AF of storage capacity is available to Metropolitan in reservoirs and banking/transfer programs. Metropolitan's access to this storage capacity over the long-term is allowed by ownership or contracts that extend to years 2028 and 2035.
- Southern California can withstand hydrologic and political risks and expects to have a reliable water supply for the foreseeable future because of the integrated resources planning efforts of Metropolitan and its member agencies.
- The maximum-supply capability of each of the resource programs has been estimated for various hydrogeologic events in years 2005, 2010, 2015, 2020, and 2025. These were evaluated for multiple-year dry period – a repeat of the 1990 to 1992 multi-year drought condition that occurred twice during the historic 77-year record, which has a probability of exceedance of 2.6 percent; a single dry-year repeating the 1977 condition with a probability of exceedance of 1.3 percent; an average year which is the 77-year average; and a wet year that is a repeat of the 1985 condition.

MWDSC relies in part on State Water Project (SWP) water for its water supply. MWDSC addressed the reliability and adequacy of the supply of SWP water in Appendix C of its Blueprint for Water Reliability Report. Appendix C of Metropolitan's report draws on the SWP Reliability Report by the Department of Water Resources dated August 2002, and determines that MWDSC's assumptions regarding the delivery of SWP water are conservative (i.e., underestimate SWP water) that the Department of Water Resources will be able to deliver to MWDSC. Subsequent to the publication of the conclusions contained in Metropolitan's report, the Department of Water Resources has issued two additional assessments of State Water Project reliability: "The State Water Project Delivery Reliability Report 2005," finalized in April 2006; and "The State Water Project Delivery Reliability Report 2007," issued in draft form in December 2007. Both reports update the August 2002 State Water Project Reliability Report based on the then currently available information. The 2005 Reliability Report makes relatively minor changes to the assessment of long-term SWP reliability. The 2007 Report, while in draft form, acknowledges two (2) categories of potential impacts on SWP reliability that insert a higher degree of uncertainty over the Department of Water Resources' conclusions on SWP reliability: 1) the difficulty in predicting the impacts associated with climate change, and 2) the difficulty in predicting the impacts associated with ongoing litigation involving Bay Delta operations. Notwithstanding this degree of uncertainty, the 2007 Draft Report concludes that SWP reliability decreases in certain hydrologic years on the order of 2 to 5 percent from earlier analyses, and may increase up to 3 percent in other hydrologic conditions. MWDSC is currently considering the implications, if any, of these updated SWP reliability predictions on Metropolitan's overall assessment of its reliability predictions. Based on Metropolitan's heavy investment in regional programs that improve reliability for MWDSC customers at the local level, it is reasonable to conclude that relatively minor changes in SWP reliability will not have a material impact on Metropolitan's overall assessment of its water supply reliability.

MWDSC's policy on restricting water use during drought periods is described in their "Water Surplus and Drought Management (WSDM) Plan" dated August 1999. The policy says that except in severe or extreme shortages or emergencies, MWDSC's management of available resources will allow shortages to be mitigated without negatively impacting retail M&I demands.

The WSDM Plan provides a list of potential drought actions that may be implemented during periods of shortage.

The WSDM report further explains that MWDSC has identified five (5) stages of surplus conditions and seven (7) stages of shortage conditions. During the surplus conditions the strategies are to fill surface storage and groundwater basin facilities. During the shortage conditions additional measures are taken, including (and in concurrent and/or successive order): conducting public affairs programs, using stored water in surface reservoirs and groundwater basins, cutting replenishment deliveries, taking water from contractual groundwater agreements, calling for extraordinary conservation, reducing agricultural deliveries, calling on options contracts, buying spot water, and implementing an allocation plan.

The report explains that up to shortage Stage 4, the actions will not impact consumptive use and that there will be no retail level impacts. The conservation efforts and reductions in agricultural deliveries in shortage Stage 5 will result in retail impacts. Stages 5, 6, and 7 require MWDSC Board of Directors actions.

Table A-1 in the report indicates the probability of various stages during the period 1999 to 2010. Based on historical weather conditions, there is virtually no chance of a Stage 7 shortage and there is little chance of a Stage 6 shortage (i.e., 1 percent). There is a 3 to 6 percent chance of a Stage 5 shortage and up to a 19 percent chance of a Stage 4 shortage.

MWDSC's margin of safety in its demand projections and MWDSC's reserve supplies, together with the fact that imported water is required for only a portion of the City supplies builds a margin of safety into the City's supply availability.

Overall MWDSC reliability and its role in meeting the needs of the Calleguas Municipal Water District are discussed further in Section 5.5.

MWDSC has also prepared a draft (as of May 2005) "Integrated Water Management Plan" that addresses reliability. Findings are:

- Ventura County Information. The Ventura County growth rate for 1995 to 2000 was about 2.5 percent and between 2000 and 2003 was about 2.0 percent based on SCAG figures. The Ventura County M&I per capita water use has been:

  1980 – 206 gallons per capita per day (gpcd)[(a)]
  1985 – 211 gpcd
  1990 – 228 gpcd
  1995 – 179 gpcd
  2000 – 198 gpcd

  Note: (a) These values take total deliveries, including landscape, commercial, industrial and institutional demands and divide that number by the population. They do not reflect individual per capita use.

- Evaluating Reliability. MWDSC developed a computer model named IRPSIM, which uses 70 years of historical hydrology (1922-1991). The model reports that:

    - 1977 was the single driest year
    - 1990-1992 was the most critical multiple dry year period.

    "The IRPSIM analysis of the IRP Update report show that Metropolitan can maintain reliable supplies under conditions that have existed in past dry periods throughout the period 2005 through 2025."

    Under the 1990-1992 hydrology Table II-4, indicates that with supplies under development, the potential reserve and system replenishment supply ranges from a low of 262,400 AFY in 2005 to 771,000 AFY in 2025. These numbers can be compared to the corresponding total demands (firm and replenishment) of 2.45 and 2.69 million acre-feet (MAF) respectively. Similarly, Table II-5 reports similar numbers in response to the 1977 single year hydrology.

    To guard against risks on the implementation of various programs and water quality issues, ***"the IRP Update instituted the development of a planning buffer of up to 10 percent of regional demands. This planning buffer calls for the identification of an additional 500 taf of contingency supplies above that needed to meet the demands in 2025."***

- Water Surplus and Drought Management Plan. In April 1999, MWDSC's Board of Directors adopted the Water Surplus and Drought Management Plan (WSDM). The plan recognizes the link between surpluses and shortages, and integrates operational actions with respect to both conditions.

    "The WSDM plan also declared that, should mandatory import water allocations be necessary, those allocations would be calculated on the basis of need, as opposed to any type of historical purchases."

    "As a result of the investments made in conservation, water recycling, storage, and supply, Metropolitan has identified a resource management plan that should result in 100 percent reliability for non-discounted, non-interruptible demands through 2025. A key element…is to store surplus supplies during wet periods." The text describes various programs including the agreement with CMWD for the North Las Posas Conjunctive Use Program.

    The WSDM defines five (5) surplus stages and seven (7) shortage stages. Stages 1 through 4 would not impact deliveries. Stage 5 involves a call for extraordinary conservation and curtailment of the Interim Agricultural Water Program. In Stage 6 Metropolitan would add the exercising of all water supply option contracts and/or buy water on the open market. In Stage 7 Metropolitan would discontinue deliveries to regional storage facilities, except on a regulatory or seasonal basis, continue extraordinary conservation efforts and develop a plan to allocate available supply fairly and efficiently to full-service customers. Penalties are listed for exceeding allocations.

Due to dry conditions and the pending Delta smelt litigation in 2007 that may affect MWDSC's supplies, MWDSC will implement the water shortage actions which it outlined in its WSDM, which include a 30 percent reduction in Interruptible Agricultural Water Program (IAWP) deliveries. On October 9, 2007, MWDSC's Board of Directors announced that it will reduce IAWP deliveries over a 12-month calendar year beginning in January 2008.[1] At this time, MWDSC has stated that it will not reduce water purchased by its member agencies at the full service rate.[2] CMWD's supplies are currently secure as it purchases non-discounted non-interruptible supplies from MWDSC.

MWDSC has announced a strategic approach for 2008 regarding its WSDM Plan. Besides exercising interruptions to the IAWP, MWDSC's major strategies are as follows:

- Continue conservation campaign;
- Maximize recovery of water from Central Valley storage and banking programs;
- Purchase additional supplies to augment existing supplies; and
- Develop and implement a shortage allocation plan.[3]

MWDSC is presently developing a long-term Drought Allocation Plan that may include reductions of full service deliveries.[4] MWDSC has used several of these types of initiatives in the past (e.g., during the droughts of 1977-78 and 1989-92) which allowed the agency to meet the needs of its member agencies.[5] Past experience demonstrates that MWDSC has always provided its members agencies with sufficient supplies in the face of variable weather conditions, new environmental and water quality regulations, and evolving political and legal challenges.[6]

- Planning for Catastrophe. ***"To safeguard the region from catastrophic loss of water supply, Metropolitan has made substantial investments in emergency storage. The emergency plan outlines that…interruptible service deliveries would be suspended, and firm supplies…would be restricted by a mandatory cutback of 25 percent from normal-year demand levels."*** Water stored in reservoirs, including Diamond Valley Lake, and water stored in the ground would be utilized as needed.

- Tier 1 and Tier 2. Member agencies (i.e., CMWD) with Purchase Orders pay the Tier 1 supply rate for all firm demands up to 90 percent of their base demands. The Tier 2 rate

[1] Metropolitan Water District of Southern California, Board of Directors Agenda Item 8-4 at 1 (October 9, 2007) A copy of the *Board of Directors Agenda Item 8-4* is available for review at the City of Oxnard Planning and Environmental Services Division located at 214 South C Street Oxnard, California.

[2] *Id.* at Attachment 2 at 3.

[3] Metropolitan Water District of Southern California, *Water Surplus and Drought Management Plan Board Report* at 4 (June 21, 2007).

[4] *Id*.

[5] MWD 2005 UWMP at 3-4.

[6] For example, MWD successfully dealt with disruptions to supply caused by the 2004 Jones Tract flooding and operational constraints such as the rehabilitation of the Colorado River Aqueduct in 2003. *See* MWD 2005 UWMP at II-15.

is above those demands and covers the cost of developing new supply, which has the effect of encouraging conservation and development of local supplies. Effective January 1, 2005 the Tier 1 supply rate is $73 per AF and the Tier 2 rate is $154 per AF. With other charges the totals are $331 and $412 for the two rates, respectively. CMWD has a Tier 1 Annual Limit of 103,801 AFY with a Purchase Order Commitment of 692,003 AF over a 10-year period.

- Local Supplies. Approximately 50 percent of the regional water supplies come from local resources. ***"The groundwaters that underlie the region provide approximately 90 percent of the local water supplies in Southern California."***

1. Goals.

   - Conservation: Metropolitan's 2025 IRP total conservation target is 1.1 million acre-feet per year (MAFY) compared to pre-1990 levels. Much of that has already been achieved. Remaining savings will be achieved through Metropolitan's cost-effective BMP-oriented active conservation programs. The largest program is the ultra-low-flush-toilet (ULFT) program (BMP-14). Rebates and vouchers range from $60 to 75 per ULFT. The high efficiency clothes washer rebate program (BMP-6) has also been successful with incentives to purchase over 100,000 washers. In addition, MWDSC has developed a program for water-use efficiency survey programs and has funded residential and large landscape audits since 1993. For commercial and industrial customers, MWDSC has funded retrofits since 1997 with rebates for individual items ranging from $60 to $2,000.
   - Recycling, Groundwater Recovery, and Desalination: Recycling is a major supplemental source of water. In April 2007, Metropolitan's board of directors changed the way projects are selected for funding under the Local Resources Program which pays up to $250 per AF for eligible projects that expand water recycling and groundwater recovery. The new program employs an open process to accept and review project applications on a continuous basis for the development of 174,000 AFY of local resources. Previously, Metropolitan selected projects through a competitive request for proposal process. Metropolitan targets 500,000 AFY for combined recycling, groundwater recovery, and desalination.

     About 14 percent of recycled water in MWDSC's area is used for groundwater replenishment and seawater barriers. The IRP goal is 150,000 AFY of seawater desalination.
   - Storage and Groundwater Management Programs: Within the Region. The goal is to increase storage through groundwater conjunctive use projects. The 1996 IRP called for 200,000 AFY of dry-year yield from in-region groundwater storage by 2000 with 275,000 AFY by 2010 and 300,000 AFY by 2020. The North Las Posas Basin project through an agreement with CMWD ***"gives Metropolitan the right to store up to 210,000 AF of water…"*** Ultimately, the project will be able to pump 70,000 AFY from the basin.
   - State Water Project: With adoption of the CALFED Policy Principles, the goals ***"committed Metropolitan to water quality objectives, the development of 650 taf minimum dry-year supply from the SWP by 2020, and average annual deliveries of 1.5 MAF."*** Various actions and issues are described.

- Colorado River Aqueduct (CRA). The issues are complex, but Metropolitan's target for supplies is 1.2 MAFY. With the "4.4 Plan" California must limit its use of Colorado River to 4.4 MAFY. Of this total the maximum CRA delivery is limited to 1.25 MAF including San Diego County Water Authority/Imperial Irrigation District transfer supplies, and Coachella and All American Canals lining supplies. In addition, MWDSC can take additional water in years when there is surplus water available.

2.12.2 Imported Water Supply - SWP Perspective

The primary factors affecting SWP supply availability include hydrology, the amount of water in SWP storage at the beginning of the year, regulatory and operational constraints, and the total amount of water requested by SWP contractors. Urban SWP contractors' requests for SWP water, which were low in the early years of the SWP, have been steadily increasing over time, which increases the competition for limited SWP dry-year supplies.

The "*State Water Project Delivery Reliability Report,"* prepared by DWR assists SWP contractors in assessing the reliability of the SWP component of their overall supplies. DWR prepared an updated version of this report in 2005 and is in the process of completing another update. In the 2005 update, DWR provided a recommended set of analyses for SWP contractors to use in preparing their 2005 Urban Water Management Plans. These analyses indicate that the SWP, using existing facilities operated under then current regulatory and operational constraints could deliver 77 percent of contract supplies on a long-term average basis. These analyses also project that SWP deliveries during multiple-year dry periods could average about 25 to 40 percent of total SWP contract amounts and could possibly be as low as 5 percent during an unusually dry single year. During wetter years, or more than 25 percent of the time, 100 percent of full contract amounts are projected to be available. A draft update of the *State Water Project Delivery Reliability Report* was released for public review in late January 2008. A final report is anticipated after April 2008.

In addition to climate variability, imported water is also subject to regulatory and legal challenges. The Sacramento-San Joaquin Delta (Delta) is the focal point for water management, ecosystem restoration, land use planning, and other major initiatives in California and is the "hub" for SWP water (SWP water is the primary source of imported water in the Region). Because this IRWMP region receives imported water coming from the Delta, it is very important to the IRWMP process that stakeholders and the general public have an understanding of the key issues affecting the Delta. These issues include: water supply reliability, water quality, ecosystem restoration, levee system integrity, and recreation.

Water quality in the Delta is negatively affected by multiple constituents such as salinity, mercury, dissolved oxygen, organic carbon, selenium, pesticides, and toxicity of unknown origin. Further complications are apparent when considering the declining health of the Delta ecosystem and the reduction of aquatic and terrestrial habitat. Water diversions, toxic pollutants, and the introduction of exotic species continue to degrade the quality of the habitat that remains. Some solutions, such as conversion of agricultural land to accommodate ecosystem improvements and programs that provide water flow and timing requirements, place constraints upon farmers who rely upon the land for economic survival, as well as on the contractors who must meet the water demand of the southern part of the state. The need to balance multiple competing uses is apparent when evaluating this issue. The integrity and maintenance of the complex levee system in the Delta is another major concern. Levee failures lead to inundation and destruction of agricultural lands and result in increased salinity necessitating the shut down of export pumps. Finally, the use of the Delta for recreational purposes has increased in popularity coincident with the growing state population. The estimates of recreation use (over 12 million recreational user days per year) indicate that this factor is a key component in the management of Delta resources.

Specific threats to the SWP include litigation concerning the Delta. In 2007, two courts ruled that California's major water delivery systems—the SWP and the Central Valley Project (CVP)—were violating state and federal environmental laws regarding a threatened fish species, the Delta smelt. First, Alameda County Superior Court Judge Roesch concluded that the SWP had failed to obtain a permit required under the California Endangered Species Act (CESA) that would provide protections for Delta smelt, salmon and steelhead from the effects of water pumping for activities at the Harvey O. Banks Delta Pumping Plant in Tracy, California.[7] Accordingly, Judge Roesch ordered the SWP pumps to be turned off unless appropriate permits were obtained within 60 days. DWR appealed that decision, automatically staying the decision pending the outcome of the appeal. The earliest that a decision from the appellate court is expected would be during in the latter part of 2008.[8]

As a practical response to the pending litigation in state and federal courts, DWR shut down the Harvey O. Banks Delta Pumping Plant from May 31 to June 10, 2007 to protect the Delta smelt. DWR resumed pumping on June 10, 2007, and pumping has remained at normal operating levels.

In May 2007, U.S. District Court Judge Oliver Wanger ruled that a federal Endangered Species Act (ESA) take permit that had been issued to protect Delta smelt at both the SWP pumps and the federal Jones Pumping Plant was not legally sufficient.[9] At issue was a 2005 biological opinion (BiO) that was issued by the U.S. Fish and Wildlife Service (USFWS) pursuant to the ESA, and concluded that current project operations and certain planned future actions would not jeopardize the continued existence of the Delta smelt or adversely modify its critical habitat based on certain actions being taken by the CVP and SWP. The court found that the BiOp was legally inadequate because it did not provide a reasonable degree of certainty that mitigation measures will take place, use the best available science, address climate change or address the impacts of joint project operations on the continued survival of the Delta smelt.[10]

By the time this decision was released, the SWP and CVP water agencies were aware that the incidental take permit was not preventing take of Delta smelt and had requested a new permit. The consultation process with USFWS is expected to result in a new BiO and take permit in late 2008. On August 31, 2007, Judge Wanger issued an interim oral decision that allowed the SWP and CVP to continue operating under the prior take permit as long as they complied with a USFWS-proposed five-point action matrix, as modified slightly, plus certain increased monitoring plans requested by the plaintiffs and other actions that do not have a water cost.

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7 *Watershed Enforcers v. California Department of Water Resources* , Case No. RG06292124, Order (Alameda County Sup. Ct. March 22, 2007).

8 *Id*.

9 *Natural Resources Defense Council v. Kempthorne* , 506 F.Supp.2d 322, 387-388 (E.D.Cal. 2007).

10 *Id*.

At the remedy proceeding before Judge Wanger, the Chief of the SWP Operations Planning Branch testified that in an average year, when combined deliveries of the CVP and SWP would be 5.9 million AF, reductions in deliveries due to compliance with the USFWS matrix will range from 820,000 to 2.17 million AF, which represent 14 and 37 percent of baseline deliveries, respectively. In a dry year, when combined deliveries would be 3.2 million AF, reductions will range from 183,000 to 814,000 AF, which represent reductions from baseline deliveries of 6 and 25 percent, respectively.[11] The modifications to the USFWS matrix by Judge Wanger will increase the delivery reductions by an amount that was not modeled by DWR, but it is expected that the actual impacts of Judge Wanger's order may be slightly greater than those figures.

Judge Wanger's order will impact diversions from December 25, 2007 until the new USFWS BiOp is issued in late 2008. However, it should be expected that the USFWS will include similar restrictions in the final BiO to those that were in its action matrix adopted by Judge Wanger. Thus, the SWP and CVP will likely see long-term reductions in deliveries based on this litigation. Among other results, the decision likely will increase the political pressure for construction of the Peripheral Canal to avoid use of the south Delta pumping plants. In response to this decision and other water supply and quality issues, MWDSC has reported that "in the short and long term, continued investment in regional and local resources will help ensure and diversify reliable water supplies to meet Southern California's future needs."[12] MWDSC has embarked on many proactive programs to deal with potential future delivery restrictions, should they occur.

For example, MWDSC is one of the parties that are drafting the Bay-Delta Conservation Plan (BDCP) to provide state and federal ESA coverage for the SWP operations. The BDCP allows water contractors, who must comply with the federal and state ESAs, to work cooperatively to attain incidental take coverage via a habitat conservation plan and natural community conservation plan. Development of this plan is now underway under the aegis of the California Resources Agency, and a draft report is due in 2008, with the appropriate permits and completion of an environmental impact statement/impact report expected in late 2009.

MWDSC is also focusing on voluntary Central Valley storage and transfer programs to bank MWDSC's SWP water supplies. In its 2006 Integrated Water Resources Plan Implementation Report, MWDSC reported that "492,000 AF of dry-year yield has been developed in Central Valley storage and transfer programs," and "potential partners and programs have been identified to meet IRP targets."[13] This flexibility will assist MWDSC in addressing shortages due to drought or court-imposed cutbacks to protect Delta smelt. Further, MWDSC has employed conjunctive use programs which utilize groundwater basins to store water during wet seasons, which provides a buffer supply that MWDSC can extract during dry periods. In 2006, MWDSC developed groundwater storage capable of providing 135,000 AF of dry year supply. MWDSC continues to seek additional opportunities in Southern California to expand groundwater conjunctive use storage programs.

[11] California Department of Water Resources, Comparison of the Water Costs Associated with the Proposed Remedy Acts, Table produced from John Leahigh Supplemental Declaration Filed August 3, 2007 in *Natural Resources Defense Council v. Kempthorne*, 506 F.Supp.2d 322 (E.D.Cal. 2007) [Exhibit R].

[12] Metropolitan Water District of Southern California, Press Release (September 11, 2007) [Appendix I].

[13] *Id*.

2.12.2.1 Delta Levees

The state is actively studying the risk of levee failure and potential impacts to SWP supplies and developing a plan to protect the Delta. There are several concurrent processes for resolving these challenges. In the spring of 2006, at the recommendation of CALFED, an interagency effort that includes 23 state and federal agencies that have management or regulatory responsibility for the Delta, DWR began a two-year Delta Risk Management Study (DRMS) to analyze risks to the levee system. The Stage I analysis will include a discussion of the region's assets, existing problems with the system, the degree of risk that exists and the potential consequences of multiple levee failures. Stage II will address levee risk reductions. The DRMS reports will be a part of the Delta Vision Report to be submitted to the State Legislature and Governor in 2008.

Following completion of the Delta Vision Report, the panel established by Governor Schwarzenegger will begin studying long-term strategic solutions for the conflicts in the Delta. That process, which will take place during 2008, is a strategic planning stage that will assess alterative implementing measures and management practices to implement the Delta Vision recommendations. The final recommendations will include modifications to existing land uses and services in the Delta, and will assess governance, funding mechanisms, water resource uses and ecosystem management practices. The Delta Vision Committee will publish a public review draft of its Delta Strategic Plan by October 31, 2008 and submit the final plan to the Governor and Legislature by December 31, 2008.

In response to concerns over the integrity of the levee system, the state significantly increased the budget for levee repairs in 2006, and a $5.4 billion natural resources bond was approved by voters in November 2006 (Proposition 84), which assigns additional funds for flood control in the Delta and to plan for future water supplies.

At the state, regional and local levels, numerous water decision-makers are actively addressing the threats facing the Delta. A review of MWDSC's resource development programs demonstrates that although SWP supplies are facing challenges and may become more expensive based on the cost of ultimately adopted solutions, MWDSC's adaptive planning framework, which includes conservation, in-region surface water storage, groundwater storage programs and local water production within the MWDSC service area, will allow MWDSC to adapt to changing conditions and ensure a reliable, diverse water supply to its members agencies that supply water to municipal customers. MWDSC has spent the past decade increasing the capacity of its reservoirs, and its overall water reserve is several times larger than it was during the 1991-1992 drought. Further, actions that are being taken by the CALFED process and the state should enhance reliability of the SWP supplies in the future. Both MWDSC and state agencies are aware of changing conditions that may impact the SWP and are planning accordingly to ensure a safe, reliable supply of SWP water.

2.12.3 Imported Water Supply – Colorado River Perspective

MWDSC possesses the right to divert water from the Colorado River. The Colorado River, another source of imported water, is experiencing a protracted multi-year drought which began in October 1999. Inflow to Lake Powell provides a useful barometer of drought conditions in the Colorado River Basin. In the late 1990's, inflow to Lake Powell was above average and the lake stayed full from 1995 through 1999. Between 2000 and 2007 inflow to Lake Powell was below average in all but one year (2005). Year 2002 inflow was the lowest ever recorded since Lake Powell began filling in 1963. Total unregulated inflow to Lake Powell as of February 2008 is 84 percent of average. However, because California has the senior water right priority on the Colorado River, if there is a shortage declaration and cutback, the shortages are first applied to Arizona and Nevada. Only in the event of a severe shortage (~24 percent or greater) is California subject to cutbacks in Colorado River supplies. While such a cutback is possible, modeling suggests a less than 1 percent chance of that level of cutback over the next 20 years.

The Blueprint Report includes a description of MWDSC's 550,000 AFY base apportionment water right, along with the Colorado River supply projects that MWD is implementing to maximize the reliability of Colorado River supplies. This supply is considered a firm, fixed supply. Following distribution of the Blueprint Report, the Quantification Settlement Agreement (QSA) and other related agreements were approved on October 10, 2003, related to the supplies of all the California users of the Colorado River, including MWDSC. Signing of the QSA and related agreements will allow implementation of the Colorado River supply projects identified in the Blueprint Report, as well as other projects. MWDSC described the QSA and related agreements and their impact on the reliability of MWDSC's supplies in its 2006 Integrated Water Resources Plan Implementation Report.

Current challenges facing MWDSC's Colorado River supply include risk of continued drought in the Colorado River Basin and pending litigation that may threaten implementation of part or all of the QSA. MWDSC has been aggressively preparing for these two risks to its Colorado River supply for many years.

Programs that will help to implement the QSA and meet Colorado River water supply targets, and that are currently in operation, close to completion or in progress include: the Imperial Irrigation District (IID) and MWDSC water conservation and transfer program; the Coachella and All-American Canal lining projects; the IID and San Diego County Water Authority (SDCWA) water transfer; the Palo Verde Irrigation District land management and crop rotation program; and the Interim Surplus Guidelines adopted by the U.S. Secretary of the Interior.[14] MWDSC is actively working to implement several of these QSA-related programs. In addition, MWDSC is participating in the Intentional Created Surplus program to store water in Lake Mead for withdrawal during dry years. During 2006 and 2007, MWD stored 50,000 AF of water in Lake Mead that it had saved under the Palo Verde Irrigation District Land Management and Crop Rotation Program.[15] Collectively, these programs are expected to maintain the reliability of MWDSC's Colorado River supplies.

MWDSC's fourth priority apportionment of Colorado River water has been delivered to MWDSC every year since 1939, in all hydrologic year types. By existing contract, this supply "will continue to be available in perpetuity" due to California's senior rights on the Colorado River.[16] MWDSC has stated in their 2005 UWMP that "the historical record for available Colorado River water indicates that Metropolitan's fourth priority supply has been available in every year and can reasonably be expected to be available over the next 20 years." Thus, according to MWDSC, its Colorado River supply is secure through at least 2025. Pursuant to the analysis in more recent MWDSC assessments of its water supplies and this WSA, there are no substantial

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[14] *Id.* at 11. *See also* 66 Fed. Reg. 7772-7782 (January 25, 2001).

[15] *Id*.

[16] *Id*.

challenges that are currently predicted to arise between 2025 and 2030. Therefore, the same reliability that MWDSC declared through 2025 is also applicable through 2030, the time period covered by this document.

The second challenge to MWDSC's Colorado River supplies is the pending litigation concerning the QSA and related agreements. That litigation has taken two forms: 1) a series of lawsuits against the lining of the All-American Canal; and 2) a series of lawsuits which challenge the IID/SDCWA transfer. The All-American Canal litigation has been litigated and resolved in favor of the QSA parties, thus increasing the certainty of MWDSC's Colorado River supplies since the publication of the Blueprint Report.

Several lawsuits against the IID/SDCWA transfer were brought by the County of Imperial, various landowners within IID and environmental advocacy groups, and have been consolidated in Sacramento County Superior Court. In two of those lawsuits, the County of Imperial sued the State Water Resources Control Board (SWRCB), IID and SDCWA regarding the legitimacy of the QSA approvals. In November 2004, the Superior Court dismissed those cases with prejudice on the ground that the County had failed to name MWDSC and the Coachella Valley Water District as necessary and indispensable parties to the actions on a timely basis. Thereafter the County appealed that decision and the Court of Appeal affirmed the dismissal in 2007, which lifted a stay on the other QSA cases.[17] In addition, several demurrers have been filed and sustained in the consolidated cases, reducing the number of causes of action pending in the litigation.[18] As of the date of this document, the water transfer challengers' motions for preliminary injunction have been denied, and thus, the parties are free to implement the provisions of the QSA, as appropriate. The full cases are expected to reach the court for decision during 2009.

While all significant issues in the QSA litigations have been resolved in favor of MWDSC and the other QSA parties to date, including the entire All-American Canal case, it is impossible to predict with absolute certainty how the remaining litigation will be resolved. MWDSC is actively involved in the litigation, however, and plans to defend the QSA fully to prevent any impacts to its Colorado River supplies.

2.12.4 Imported Water Supply – Calleguas Perspective

In September 2005 CMWD released its Final 2005 Urban Water Management Plan. Since the major portion of CMWD water deliveries come from water from the MWDSC, the CMWD UWMP includes a considerable amount of information from MWDSC Reports.

CMWD supplies water to three quarters of Ventura County residents. In some cases, CMWD is the sole water supplier (i.e., some regions of Ventura County are entirely dependent on CMWD supplies). In other areas, such as the City of Oxnard, CMWD composes only a portion of the City's water supply sources. According to its UWMP, CMWD water represents approximately 70 percent of the total potable water demand within its service area.

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[17] *County of Imperial v. Superior Court*, 152 Cal.App.4th 13 (2007).

[18] October 10, 2007 Order by Judge Candee in *Imperial Irrigation District v. All Persons Interested in Any of the Following Contracts, Imperial County Case No*. ECU01649 (Sacramento County Case No. 04CS00875) filed November 5, 2003.

In terms of the overall projections for imported water, CMWD shows a projection from about 122,865 to 144,537 AFY, with the former being for a 2005 average year and the latter being for 2030 average water year. These are based on availability of MWDSC water. The CMWD 2005 UWMP states “MWD anticipates that in the years 2005 through 2009, only 85 percent of the average year water supply may be available to import during a single dry year, and 98 percent of the average year water supply may be available to import during multiple dry years. MWD anticipates that this may also be true during multiple dry year events from 2010 through 2014. However, between 2005 and 2015, new facilities will be operational and will allow MWD to import more than 100 percent of the average year supply during dry and multiple dry years.”

MWDSC has projected that the imported water available to CMWD will be 125,800 AFY in 2005 for an average year, increasing to 170,100 AFY in 2030 for an average year. It also indicates that there will be available 179,300 AFY in 2030 during a multiple dry year scenario.

CMWD has focused its planning efforts on more efficient use of local water resources. CMWD is working with its customers and other local agencies to support a number of local projects to increase the overall reliability of regional water supplies. These projects include wastewater reclamation, brackish groundwater recovery and regional salinity management programs.[19] The development of additional local supplies in future years will allow the CMWD purveyors to provide more than the average year supply in multiple dry year scenarios. Each of these projects adds local supply sources that offset or reduce the demand for imported water and provide additional supplies to accommodate growth within the CMWD service area. This is similar to MWDSC's regional imported water projections presented in Table 2-6 (of the CMWD report).

Under “Local Supply Programs,” Calleguas lists:

a. Simi Valley Recycled Water Systems.
b. VCWWD No. 1 Reclaimed Water Distribution System Expansion.
c. Calleguas Regional Salinity Management Program (Brineline).
d. Camarillo Groundwater Treatment Facility (Brackish water).
e. South Las Posas Basin Regional Desalter (Brackish water).
f. West Simi Desalter.
g. Somis Desalter.

The most important of these projects, the Las Posas Basin groundwater storage program, is described below.

Las Posas Basin Groundwater Storage Program. In a cooperative effort with MWDSC, CMWD has developed the Las Posas Basin Aquifer Storage and Recovery (ASR) project in the Las Posas Groundwater Basin.[20] This project is designed to provide for subsurface storage of up to 300,000 AF of imported water to meet emergency, drought and peak demands of CMWD’s member agencies. ASR technology includes dual-purpose, injection/extraction groundwater

[19] 2005 CMWD UWMP, at 2-20.
[20] *Id.* at 5-9.

wells that can store water and subsequently produce the stored water as needed. The project will enable pre-delivery and storage of large volumes of SWP water in the CMWD service area during periods of availability. The stored water will later be “recovered” (extracted) by CMWD to meet seasonal, drought and emergency demands.

The Las Posas ASR project will provide the following benefits to the City:

- Increases the reliability of CMWD’s drinking water supply by storing large volumes of SWP water available for later use.
- Increases the water storage capacity for the CMWD service area. The available storage capacity in the Las Posas Basin is 30 times the capacity of Lake Bard.
- Increases operational flexibility in the event of a severe drought or emergency.

If the SWP water supply is reduced or disrupted entirely, the stored water will be retrieved, treated and delivered to meet demands in the CMWD’s service area.

In Section 5 of the report, Table 5-2 indicates that demands can be met through 2030. Under dry year conditions, however, there is a shortage in the period 2006 to 2010 (i.e., “… a small deficit between 2005 and 2010 before completion of the MWDSC groundwater banking projects…”).

The multiple dry year scenario shows up to a 5 percent shortfall during the 2005 to 2010 period. To address potential shortage conditions, Calleguas proposes the actions shown in Table 2-5.

TABLE 2-5
CMWD WATER SHORTAGE STAGES OF ACTION GUIDELINES

Condition [a]	Percent Shortage	Action [b]
Stage 4 & 5 Surplus	-	Maximize in-lieu and injection deliveries.
Stage 3 Surplus	-	Store water in Las Posas.
Stage 2 Surplus	-	Continue in-lieu deliveries.
Stage 1 Surplus	-	Begin in-lieu deliveries.
Supply = Demand	0	No in-lieu or injection deliveries. [c]
Stage 1 Shortage	0 – 10%	Continue to maximize deliveries from MWDSC.
Stage 2 Shortage	10 – 15%	Begin withdrawals from Las Posas.
Stage 3 Shortage	15 – 33%	Continue withdrawals from Las Posas.
Stage 4 Shortage	33 – 40%	Call on purveyors to maximize local supplies, promote voluntary conservation, withdrawal from Las Posas.
Stage 5 & 6 Shortage	40 – 50%	Call for extraordinary conservation efforts.
Stage 7 Shortage	50+%	Enforce compliance with MWDSC reduced allocation requirements. [d]

Notes: (a) Stages of CMWD actions are intended to be consistent with action stages defined by MWDSC.
(b) As surplus or shortage conditions progress, these actions are additive.
(c) Deliveries will be reduced to just purveyor demands and regulatory deliveries to Lake Bard.
(d) CMWD will monitor consumption and assess penalties for excessive use.

In Table 6-2 of the UWMP, CMWD estimates shortfalls of 6 to 7 percent for 2006-2008 in the event of a 3-year minimum water supply condition. Calleguas concludes that: "…CMWD may be required to implement some of the shortage actions described in Table 6-2" (Table 2-5 above). Alternatively, CMWD may be able to order a small portion of the estimated 262,000 AFY of reserves that MWDSC estimates would be available during these years and avoid implementing any water shortage actions.

2.12.5 O-H Groundwater Supply – UWCD

The United Water Conservation District (UWCD) has prepared and released its "2005 Urban Water Management Plan for the Oxnard-Hueneme System," which is summarized in this section.

The O-H system supplies a part of the drinking water supply for the City of Oxnard as well as the Port Hueneme Water Agency (PHWA), which consists of the City of Port Hueneme, two (2) U.S. Naval bases, and the Channel Islands Community Services District. The capacity of the O-H system is 53 cfs and it operates by pumping groundwater from the El Rio Spreading Basin area. The source of supply for the El Rio Spreading Basin is water diverted from the Santa Clara River at UWCD's facilities.

Closely related to the availability of groundwater is the availability of surface water in the Santa Clara River, used to recharge the Oxnard Plain aquifers. Flows in the river can vary from 5 to 20 cfs in the late summer to over 140,000 cfs in large winter storms. Surface water flows can vary considerably from year to year. Releases of water from Lake Piru can mitigate the low flow in the Santa Clara River.

Historical O-H water usage has varied from a high of almost 18,000 AFY to a low of about 7,000 AFY.

Both UWCD and the Fox Canyon GMA operate under the guidelines of a groundwater management plan prepared by the Fox Canyon GMA.

The City of Oxnard O-H Suballocation is presented in Table 2-2 of this report.

A. <u>Reliability of the O-H Water Supply.</u> Reliability of the O-H water supply depends on several factors – groundwater conditions, weather trends, conservation, GMA actions, and water quality limitations. The worst drought experienced by the O-H system was in the 1985 to 1991 period. The last drought was before the Freeman Diversion was completed. Since then, the ability to recharge groundwater has improved. O-H demand is being decreased due to Fox Canyon GMA pumping reductions. Water conservation has decreased agricultural demands by as much as 25 percent. Overall, conditions are much improved…***It is projected that the O-H System will be able to meet its contracted deliveries in the worst expected drought.*** Specifically, the UWCD UWMP states: "What is significant is that the O-H system survived the last drought without any reductions to O-H customers. And that was before the construction of the improved Freeman diversion and other facilities. No institutional restrictions will limit pumping during droughts. It is concluded that the O-H system will have adequate water during the worst foreseeable 3-year drought."

B. Water Shortage Contingency Plan. The UWCD UWMP states:
- ***"It is concluded that the O-H system will have adequate water during the worst foreseeable 3-year drought."*** For long-term droughts on the order of 5 years or more, groundwater levels in the Oxnard Forebay would drop, meaning that deep aquifer wells would be used in preference to shallow wells. This would decrease the water quality but not decrease supply.

The UWMP also states: ***"Based on historical data, it is United's assessment that under all foreseeable groundwater conditions, with the current wells and operation of the O-H System, we will be able to blend water to meet our O-H customer's demands without exceeding the MCL for nitrates."***

C. Fifty (50) Percent Reduction in Supply. The UWMP indicates that should the UWCD O-H system have a 50 percent reduction (likely only during temporary emergency conditions), the City of Oxnard and the PHWA would increase water deliveries from CMWD and, for Oxnard, from groundwater wells.

2.13 City's Capital Improvement Program

This section addresses the City's capital improvement program (CIP) necessary to insure water supply for planned or anticipated developments and increased water demands.

Addressed in this section are only those projects that relate to water supply and not the internal distribution and operational improvements that are a part of the overall CIP for the City.

Table 2-6 summarizes the status of the CIP.

TABLE 2-6
CITY CAPITAL IMPROVEMENT PROGRAM
(SOURCE OF SUPPLY)[a,b,c]

Project	Objective	Year-Operational
GREAT – Initial Phase – Consisting of the Advanced Water Purification Facility and Recycled Water Pipeline	Provide highly treated recycled water to City and non-City (agricultural) customers with the City acquiring rights to pump groundwater from the agricultural properties. Recycled water to City customers will reduce domestic potable water demand.	2011
GREAT – 1st Expansion – increasing the capacity of the AWPF.	Essentially to increase the capacity in order to increase the City's groundwater allocations – either through City wells or its sub-allocation from UWCD.	2012
GREAT – 2nd Expansion increasing the capacity of the AWPF.	The second and last expansion of the GREAT AWPF.	2016

Project	Objective	Year-Operational
GREAT – Desalter	Provide highly treated water to blend with the increased groundwater production to achieve a blended product with low TDS.	2008
Blending Station No. 5 - New blending station with a capacity of 16.1 MGD	Provide redundancy and increased fire flow to southeastern portion of the City.	complete
Well No. 32 at Blending Station No. 1	Increase pumping capacity by 2,000 gpm	2008
Well No. 33 at Blending Station No. 1	Increase pumping capacity by 3,500 gpm	2008
Well No. 34 at Blending Station No. 1	Increase pumping capacity by 2,500 gpm	2008
Well No. 28 at Blending Station No. 3	Increase pumping capacity by 2,000 gpm	complete
Well No. 29 at Blending Station No. 3	Increase pumping capacity by 3,000 gpm extraction and 1,000 gpm injection	complete
Well No. 30 at Blending Station No. 3	Increase pumping capacity by 2,000 gpm	complete
Well No. 31 at Blending Station No. 3	Increase pumping capacity by 2,000 gpm	complete
Recycled Water Backbone System – Consisting of the main pipeline and two “looped” pipelines.	Capacity is approximately 1,250 AFY. Project decreases domestic water demands.	2011
CMWD Las Posas Groundwater ASR Project	While not a City project, this major project is being undertaken by CMWD to increase the reliability and availability of local water. Currently, waiting for completion of the necessary pump station to delivery stored water to customers.	2009
Ventura Intertie	Feasibility Study of project to intertie Oxnard and Ventura systems.	No timeline available

Notes:

(a) With the proposed wells, the capacity will be 20,000 gpm with all wells operating. With a 70 percent operational factor, that translates into approximately 22,600 AFY and can be compared with a current groundwater allocation of approximately 8,500 AFY. As the City’s groundwater allocation is increased through the GREAT Program, it is estimated that groundwater pumping from City wells will increase to approximately 26,000 AFY, necessitating the construction of several new wells.

(b) With the completion of Blending Station No. 5, the total capacity of the blending stations will be sufficient to meet the ultimate flow requirements for the City. Additional detail will be provided in the 2008 Water Master Plan Update.

(c) The precise capacity of the 2nd GREAT expansion project will be established in approximately 2012 using the then available population and demand projection information.

2.14 Other Factor’s Impacting Water Supplies: Climate Change

The City has conducted a survey of current literature on climate change and has summarized the potential impacts on water resources in California. To address uncertainties in the water supplies, the City has reviewed the most recent reports that address the potential effects of climate change on the Delta drainage area and the Colorado River Basin. The City has also summarized recommendations offered by state agencies, policy groups and non-governmental organizations, and has compared them to MWDSC's existing programs and climate change policies.[21]

Recent climate change reports recognize that impacts on water resources largely depend on the degree of warming and concede there are significant uncertainties regarding the impact of climate change on local and regional climates. There is a great deal of uncertainty surrounding temperature rise predictions and the resulting impacts on local and regional climates because it is difficult to predict future greenhouse gas emissions and the resulting feedback processes in the climate system and hydrological cycle. Further, existing climate change models are imperfect and become increasingly imprecise when used to predict changes on a watershed level. Therefore, it is not possible to quantify the impacts of climate change on water supplies in the Western United States, let alone those available to the City.[22]

Although climate change impacts are uncertain and cannot be precisely modeled, existing evidence, including the effects of warming in the West over the last century, demonstrate that climate change will likely affect future snowpack accumulation, water supply, runoff patterns, sea level, incidents of flooding and droughts, evapotranspiration rates, water requirements and water temperature. Water supplies will be directly affected by temperature changes, precipitation, humidity and wind speed. The current climate change reports are largely in agreement in concluding that climate change will produce hydrologic conditions and variations of a different nature than current systems were designed to manage.

DWR is at the forefront of climate change in California and to date has conducted the most comprehensive study of the impacts of climate change on the SWP, one of two primary sources of water for MWD and, consequently, the City and the Project.[23] DWR used the results of existing models of the Intergovernmental Panel on Climate Change (IPCC) and applied them to a computer model that it jointly developed with the U.S. Bureau of Reclamation to study flow into the Delta. DWR quantified impacts for four scenarios predicted by two global climate models at two carbon dioxide emission rates.[24] It found that climate change "resulted in considerable impacts to SWP and CVP delivery capabilities, especially in the drier scenarios."[25] DWR's model showed that under one climate change scenario, average yearly SWP Table A

[21] It is impracticable for the City or any other water provider to produce a new analysis of climate change for a water supply assessment or written verification. As noted by David Yates, Project Scientist for the National Center for Atmospheric Research ("NCAR"), at a presentation before the National Association of Water Companies on October 1, 2007, the NCAR climate model has been under construction since the early 1970s and requires approximately 100 days to complete a single run. When compared with the 90-day time limit imposed on the preparation of a water supply assessment, *see* Cal. Water Code § 10910(g)(1), it is clear that the only available option for a water supplier is to rely on published reports from technical experts.

[22] This approach to analyzing climate change has been approved by the Los Angeles County Superior Court in a recent case that addressed the sufficiency of a water supply assessment in a environmental impact report. *See Santa Clarita Oak Conservancy, California Oak Foundation, and Santa Clarita Organization for Planning the Environment v. City of Santa Clarita*, Statement of Decision, Case No. BS 084677 (Los Angeles Sup. Ct. August 15, 2007).

[23] California Department of Water Resources, *Progress on Incorporating Climate Change into Management of California's Water Resources, Technical Memorandum Report* (July 2006). A copy of *Progress on Incorporating Climate Change into Management of California's Water Resources, Technical Memorandum Report* is available for review at the City of Oxnard Planning and Environmental Services Division located at 214 South C Street Oxnard, California.

[24] *Id.* at 4-1.

[25] *Id.* at 4-49.

deliveries at 2050 would be reduced by 10.2 percent.[26] DWR recognized that there were limitations to its analysis as the models did not capture many variables, and therefore the results were preliminary and not sufficient to be used to make policy decisions.[27] Instead, DWR stressed that these studies were just the starting point and could help identify future areas of study.[28]

A survey of recent research on the effects of climate change on the Colorado River reveals that runoff reductions range from a decrease of 11 percent in 2100[29] to a decrease of 45 percent in about 2050.[30] Both of these studies used the latest temperature and precipitation results from the IPCC General Circulation Models, but applied varying techniques to model flow. The survey noted the huge variations in predictions and pointed out that all of the studies suffer from limitations relating to the models used or hydrology and operational model assumptions.[31]
In light of these conclusions, both governmental agencies and non-governmental organizations recommend that water decision-makers operate existing water systems to allow for increased flexibility. Other recommendations include incorporating climate change research into infrastructure design, conjunctively managing surface water and groundwater supplies, and integrating water and land use practices.

Policymakers and water suppliers in California, including MWDSC, are currently addressing climate change impacts and developing new ways to cope with the types of variability which are outside the design range of existing infrastructure. MWDSC recognizes that climate change will require water suppliers to develop new, alternative water supplies and to focus on water use efficiency.[32] In March 2002, MWDSC's Board of Directors adopted climate change policy principles that relate to water resources. These principles are reflected in MWDSC's water supply planning efforts, including the IRP. Further, in response to climate change and uncertainty, MWDSC's 2005 Regional Urban Water Management Plan incorporated three basic elements to promote adaptability and flexibility, important in addressing impacts of climate change: conservation, groundwater recharge and water recycling.

MWDSC has been recognized for its positive approach by the IPCC in its recent *2007 Report on Climate Change: Climate Change Impacts, Adaptation and Vulnerability*.[33] The IPCC's climate change projections and adaptation options are internationally recognized by both governmental and non-governmental agencies, and its use of MWDSC as an example of how to manage climate change shows the professional wisdom of its programs.

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[26] *Id*.

[27] *Id*. at 4-50.

[28] *Id*.

[29] Brad Udall, "Recent Research on the Effects of Climate Change on the Colorado River," in *Intermountain West Climate Summary* (May 2007), (citing N. Christensen and D.P. Lettenamair, "A Multimodel Ensemble Approach to Assessment of Climate Change Impacts on the Hydrology and Water Resources of the Colorado River Basin," *Hydrology and Earth System Sciences Discussion* 3:1-44 (2006)). A copy of "Recent Research on the Effects of Climate Change on the Colorado River," in *Intermountain West Climate Summary* is available for review at the City of Oxnard Planning and Environmental Services Division located at 214 South C Street Oxnard, California.

[30] *Id.* (citing Hoerling and Eischeid, "Past Peak Water in the South-west." *Southwest Hydrology*, January/February, 18-19, 35 (2006)).

[31] *Id.* at 2, 5.

[32] Testimony of Timothy F. Brick, Chairman of MWD, to U.S. Senate Energy and Natural Resources Committee, Subcommittee on Water and Power, Re Impacts of Climate Change on Water Supply in the U.S. (June 6, 2007). A copy of Timothy F. Brick's *Testimony to U.S. Senate Energy and Natural Resources Committee, Subcommittee on Water and Power, Re Impacts of Climate Change on Water Supply in the U.S.* is available for review at the City of Oxnard Planning and Environmental Services Division located at 214 South C Street Oxnard, California.

[33]

Most recently, MWDSC approved criteria to further explain its position on the conveyance options that are currently being discussed to remedy the Delta, which include addressing projected sea level rise and change in inflows due to climate change. MWDSC's criteria provide that, whatever option is chosen, it should provide water supply reliability, improve export water quality, allow flexible pumping operations in a dynamic fishery environment, enhance the Delta ecosystem, reduce seismic risks and reduce climate change risks.[34] MWDSC has demonstrated a commitment to addressing climate change by evaluating the vulnerability of its water systems to global warming impacts and has developed appropriate response strategies and management tools that account for the impacts of climate change on water supplies.[35]

[34] Metropolitan Water District of Southern California, Board of Directors Agenda Item 8-4 (September 11, 2007).

[35] *See* MWD's *2006 Integrated Water Resources Plan Implementation Report* for more information on how MWD is addressing uncertainties.

Section 3: Water Demands

3.1 Introduction

Accurate water demand projections are the key to effective water supply management and planning as discussed in a number of recent and ongoing studies by the City. In order to project water demands, it is important to understand the nature of existing customers and then predict what growth will occur over the next 30 years.

A detailed water demand model was developed as part of the 2005 UWMP and includes: existing demand, demand from specific plans, demands from other large projects, infill project demand, redeveloped area demand, expansion beyond City limits, unaccounted for water loss, potential increase in unit demand, and contingency. The model also accounts for reductions in demand due to the increased use of recycled water and water conservation. This model has been updated as part of the efforts by City planning staff to predict the pace and demand associated with anticipated projects, as accurately as reasonably possible. A list of the specific projects included in the model is provided in Table 3-3.

3.2 Water Production in 2007

As an illustration of the relative amounts of water deliveries, the water production statistics from the City for 2007 are shown in Table 3-1.

TABLE 3-1
WATER PRODUCTION (AF) 2007

	Supply (AF)
From CMWD	11,420
From UWCD	16,630
From City Wells	440
Total	**28,490**

Source: City of Oxnard Production Records

The following are supplemental comments to Table 3-1:

(1) in reporting demand projections, the water delivered to PHWA is not included because it's a "pass-through" or "wheeling" arrangement (reflected in the "Three Party Water Supply Agreement" entered into December 10, 2002 between the City, CMWD and PHWA). A portion of the City's CMWD Tier 1 reservation is reserved for PHWA. The PHWA allocation is 3,262.5 AFY out of a total Tier 1 allocation of 17,379.4 AF. PHWA also has a contractual capacity reservation of 2.5 cfs (instantaneous demand); and

(2) P&G is reported in the demand projections as a City customer. The Three Party Water Supply Agreement also requires the PHWA to transfer 700 AF of GMA conservation credits and/or municipal/industrial pumping allocation to the City annually.

3.3 Water Demand Projections

Table 3-2 shows the estimated water demand projection through the year 2030. These estimates were developed by the City planning staff (Planning Division) and used to update the water demand tables incorporated into the 2005 UWMP. No change in the method or approach to water demand projections was made by the Planning Division. Only changes to anticipated demands from the major developments, their anticipated build-out schedules and the addition of brine loss demand have been made. There have been no changes to City limits, the City Urban Restriction Boundary (CURB), the City Sphere of Influence, or Planning Areas since the 2005 UWMP. These demand projections also include continued infill development, redevelopment and intensification of existing lots.

The information presented in Table 3-2 represents projections for average day demands in the year 2030. On a day-to-day basis there will be variations, with higher demands typically during the summer and lower demands during the winter.

TABLE 3-2
WATER DEMAND PROJECTION –
2030 (AFY)

	Category	Addition s	Deduction	Totals (Cum.)
a.	Existing water demand (2007)			25,690
b.	Existing P&G demand (2007)	2,800		28,490
c.	Specific Plans			
	- Ormond Beach (South)	995		
	- Ormond Beach (North)	815		
	- Camino Real Business Park	140		
	- Teal Club	420		
	- Wagon Wheel	640		
	- Sakioka Farms	**1,025**		
	- Jones Ranch	555		
	Subtotal	4,590		33,080
d.	Other large project areas	2,135		35,215
e.	Infill projects	1,065		36,280
f.	Additional demand due to redevelopment	1,200		37,480
g.	Recycled Water		(3,225)	34,255
h.	Brine Loss	4,200		38,455
i.	Water Conservation			
	Assume 5 percent		(2,100)	36,355
j.	Unaccounted-for-water			
	Assume 4 percent	1,600		37,955
k.	Allowance for exp. beyond City	0		37,955
l.	Allow changes in unit demands			
	Assume 10 percent of residential	2,000		39,955
m.	Contingency			
	Assume 2,500 AFY	2,500		42,455
	Total – All production - 2030			**42,455**

Source: Planning Division, January 2008.
Notes: City Demand Numbers are subject to revision pending revised calculations from City Planning. Values are rounded to the nearest 5.

Table 3-3 shows the Planning Division projections of total growth, at the end of 2007. The following is considered the high end of development potential between 2008 and 2020.

TABLE 3-3
PLANNING DIVISION TOTAL GROWTH PROJECTIONS 2008-2020

Land Use Type	Quantity
Residential	13,124 units
High-rise	1,574 units (approximately 10 acres)
Commercial	6.5 million sq. ft.
Industrial	10.1 million sq. ft.
Parks	135 acres
Hotels	129 rooms
Schools	2 elementary schools and 1 high school
Public	2 or 3 fire stations

3.4 Timing of Demand Increases

Table 3-4 provides an estimate of the demand increases in five (5) year increments:

TABLE 3-4
PRODUCTION INCREASES (AFY)

	2007	2010	2015	2020	2025	2030
a. Existing Demand	25,690	26,990	31,380	35,415	37,955	39,155
b. Existing P&G	2,800	2,800	2,800	2,800	2,800	2,800
Total Existing	28,490	29,790	34,180	38,215	40,755	41,955
c. Specific Plans(a)		550	2,880	1,160		
- Ormond Beach (South)			*440*	*555*		
- Ormond Beach (North)			*815*			
- Camino Real Business Park		*55*	*85*			
- Teal Club		*20*	*245*	*155*		
- Wagon Wheel		*220*	*420*			
- Sakioka Farms		***115***	***575***	***335***		
- Jones Ranch		*140*	*300*	*115*		
d. Other Large Projects(a)		1,810	260	65		
e. Infill(a)	500	130	220	215		
f. Redevelopment(b)		400	400	400		
g. Recycling(c)		(1,000)	(2,225)			
h. Brine Loss(d)		2,100	2,100			
i. Water Conservation(e)		(800)	(800)	(500)		
j. Unaccounted water(f)	800	200	200	200	200	
k. Allow for Expansion(g)						
l. Allow for Unit Demand increase(h)		500	500	500	500	
m. Contingency(i)		500	500	500	500	500
Totals	**29,790**	**34,180**	**38,215**	**40,755**	**41,955**	**42,455**

Notes: Values are rounded to the nearest 5.

(a) Based on best estimates of City Planning as of January 2008. Totals for specific plans reflect input from applicants for major projects.

(b) Based on redevelopment numbers from Table 4-3 in 2005 UWMP. Redevelopment is assumed to be complete by 2020.
(c) Based on Table 3-7, City of Oxnard Water Supply Strategies 2006-2016, which assumes that the GREAT Program may have the ability to generate 1,000 AFY of groundwater credits by 2010 with an additional 2,225 AFY of credits by 2015.
(d) From Water Supply Strategies 2006-2016 Report.
(e) From Table 4-3 of 2005 UWMP. Assumes 5 percent reduction from conservation.
(f) From Table 4-3 of 2005 UWMP. Assumes 4 percent unaccounted for water loss.
(g) From Table 4-3 of 2005 UWMP. Assumes no development beyond CURB line.
(h) From Table 4-3 of 2005 UWMP. Assumes unit demand increase is 10 percent of water demand.
(i) From Table 4-3 of 2005 UWMP.

3.5 Demand by Sector

Water demand projections including the Sakioka Farms project are shown in Table 3-5. Scheduled demands by water sector for the Specific Plans and Other Large Developments were based on information provided by the developers to the Planning Division. Other demand increases by year were linear based on the percentage of total demand increase.

TABLE 3-5
WATER DEMAND PROJECTIONS BY USER CLASS (AFY)
TOTAL DEMANDS

User Class	2007	2010	2015	2020	2025	2030
Single Family Residential	12,440	14,350	15,435	16,115	16,540	16,715
Multi-Family Residential	4,305	5,775	6,675	6,955	7,135	7,210
Commercial	4,160	4,970	5,285	5,655	5,820	5,890
Industrial	3,325	4,215	5,410	6,160	6,375	6,465
Landscape	3,700	4,310	4,645	5,090	5,305	5,395
Other	560	560	765	780	780	780
Total	**28,490**	**34,180**	**38,215**	**40,755**	**41,955**	**42,455**

Source: City 2007 DWR Report and information from Planning Division .
Note: Values are rounded to the nearest 5.

From Table 3-5, it is noted that:

- There is a substantial growth projection for the industrial sector.
- The actual landscape demand may be higher than stated; however, some of this may be reduced by the proposed recycled water system.

3.6 Unit Demand Figures

The unit demand factors utilized in the Planning Division update to water demand projections are summarized in Table 3-6.

TABLE 3-6
UNIT DEMANDS

Class	Unit Basis	Acreage Basis	Other Information
Single Family	330 gallons/unit/day	2,100 gpad	6.3 residences/acre
Multi-Family	780 gpd/connection	2,800 gpad	3.6 connections/acre
Multi-Family – high rise	--	8,500 gpad	--
Commercial (a)	1,200 gpd/connection	1,500 gpad	1.25 connections/acre
Industrial – Limited or light	--	2,800 gpad	--
Industrial – heavy manufacturing	--	4,300 gpad	--
Landscape	--	3.0 acre-ft/acre	--
Fire station	--	3 AFY	--

Source: 2005 UWMP, Table 4-9.
Notes: Includes “Office” category

3.7 Unaccounted-For-Water

In addition to the traditional demand sources, there is another component that impacts the City's water resources known as “Unaccounted-For Water.” This component is typically defined as the difference between water production and water sales. These water losses can come from authorized, unmetered sources such as fire fighting and main flushing, or unauthorized sources such as leakage, illegal connections, and inaccurate flow meters.

The City has historically reported extremely low losses (2 percent or less) in comparison to other utilities, which may indicate an underreporting of actual water losses. Estimates from USEPA Region 9 indicate an average of 6.4 percent unaccounted-for water. While California Department of Water Resources, Office of Water Conservation uses 9.5 percent for long-range planning of municipal water production, for the purpose of this report, a 4 percent unaccounted-for water loss is assumed. This unaccounted-for water is incorporated into each of the unit demands and a separate factor is not required.

3.8 Population Projections

The City has undergone significant population growth in recent years in excess of the growth anticipated in the 2020 General Plan. Table 3-7 shows the historical and current populations for the City based on US Census data.

TABLE 3-7
HISTORICAL CENSUS CITY POPULATION DATA

Parameter	1950	1960	1970	1980	1990	2000
Population	21,567	40,265	71,225	108,195	142,216	170,358
% Change previous decade	–	+86.7%	+76.9%	+51.9%	+31.4%	+20.0%

Source: 2005 UWMP, Table 4-10.

The 2005 estimate is 207,325, reflecting a 21.7 percent increase from 2005; this is based on the Department of Finance (DOF) figures.

Past population projections used in the current 2020 General Plan (adopted in 1990), the Oxnard Chamber of Commerce, and the Southern California Association of Governments (SCAG) all underestimated the population. Table 3-8 presents the projections from each of the different sources.

TABLE 3-8
EXISTING CITY POPULATION PROJECTIONS

Projection Source	2000	2005	2010	2015	2020	2025	2030
City General Plan	140,126	–	152,531	–	164,936		
Oxnard Chamber of Commerce	154,621	–	167,027	–	–		
1998 SCAG	151,666	156,709	165,988	174,927	185,979		
2000 US Census	170,358	–	–	–	–		

Source: 2005 UWMP, Table 4-11.

Recent population growth has been higher than anticipated largely due to an increase in birth rates in the late 1980's and early 1990's. The DOF found this birth rate spike in many areas of California where there were large Mexican immigrant populations, and there is an argument that the 1986 Immigration Reform Act contributed to this higher birth period as previously-undocumented immigrants (mostly Mexican, but also including Central Americans) decided to have children after they gained the ability to become legal U.S. residents, and eventually citizens. The Hispanic birth rate has since lowered significantly. Oxnard's future population increases will be driven by the number of housing units added to the City, and household size increases. There are no adopted population projections at this time and until they are developed as part of the updated General Plan, City Planning staff recommends an average annual increase of 2 percent as a realistic rate of increase.

Conclusions of Table 3-8 are:

1. There are differences between the population projections. The City General Plan numbers are low and this is indicative of the need for the current City General Plan Update.

2. Taking information from Table 3-6, the allowances in terms of demand would accommodate a 2030 population projection of almost 50 percent from 2004 or approximately 225,000 persons.

3.9 Sakioka Project Demand

Tables 3-9 and 3-10 present estimates of the demand of the Sakioka Farms Development with and without residential units. In the second scenario the residential units and park have been replaced with additional light industrial uses. The demand is 1,025 AFY in both cases. Thus the residential units and additional light industrial as currently proposed are interchangeable.

The total demand of approximately 1,025 AFY for the Sakioka Farms Development can be compared to the current (2007) demand of approximately 28,490 AFY and the projected 2030 demand of approximately 42,455 AFY for the City of Oxnard's total service area. Therefore in approximate numbers, the Sakioka Farms development project represents approximately 2.4 percent of the projected demand and approximately 7.3 percent of the anticipated increased demand in the City.

TABLE 3-9
DEMAND ESTIMATE FOR THE SAKIOKA DEVELOPMENT WITH RESIDENTIAL UNITS

Sector	Building Space or No. of Units	Unit Measure[a]	Unit Demand[b]	Total Demand (AFY)[c]
Commercial	100,000 sq. ft	25 acres total	1,500 gpd/ac total	40
Office	400,000 sq.ft	20 acres total	1,500 gpd/ac total	35
Business Research	2,500,000 sq.ft	91 acres total	1,500 gpd/ac total	155
Light Industrial	4,630,000 sq.ft	225.5 acres total	2,800 gpd/ac total	705
Multifamily Residential	890 units	25 acres total	2,800 gpd/ac total	80
Fire Station	1 station	1.5 acres total	3 AFY	5
Total Potable Water Demand Without Landscaping				**1,015**
Park	---	3 acres total	3.0 AFY/ac total	10
Total Landscaping Water Demand[d]				**10**
Total Demand (AFY)				**1,025**

Notes: Values rounded to the nearest 5.
(a) Total acreage as provided in the draft Sakioka Farms Specific Plan dated July 2008.
(b) af=acre-feet, ac=acre. Unit demand factors from the 2005 Master Plan.
(c) Demand determined by multiplying the unit measure by the unit demand to get total demand in gpd. (e.g. 25 acres total * 1,500 gpd/acres total = 37,500 gpd.) Then, total demand is converted to AFY and rounded to the nearest 5. (e.g. 37,500 gpd * 365 days/year / 325,851 gals per AF = 40 AFY.)
(d) Recycled water will not be available until mid 2010 at the earliest. Therefore, the developer will need to plan for landscaping to be served by domestic water up to the time when recycled water is available.

TABLE 3-10
DEMAND ESTIMATE FOR THE SAKIOKA DEVELOPMENT WITHOUT RESIDENTIAL UNITS

Sector	Building Space or No. of Units	Unit Measure[a]	Unit Demand[b]	Total Demand (AFY)[c]
Commercial	100,000 sq. ft	25 acres total	1,500 gpd/ac total	40
Office	400,000 sq.ft	20 acres total	1,500 gpd/ac total	35
Business Research	2,500,000 sq.ft	91 acres total	1,500 gpd/ac total	155
Light Industrial	5,500,000 sq.ft	250.5 acres total	2,800 gpd/ac total	790
Multifamily Residential	0 units	0 acres total	2,800 gpd/ac total	0
Fire Station	1 Station	1.5 acres total	3 AFY	5
Total Potable Water Demand Without Landscaping				**1,025**
Park	---	0 acres total	3.0 AFY/ac total	0
Total Landscaping Water Demand[d]				**0**
Total Demand (AFY)				**1,025**

Notes: Values rounded to the nearest 5.
(a) Total acreage as provided in the draft Sakioka Farms Specific Plan dated July 2008.
(b) af=acre-feet, ac=acre. Unit demand factors from the 2005 Master Plan.
(c) Demand determined by multiplying the unit measure by the unit demand to get total demand in gpd. (e.g. 25 acres total * 1,500 gpd/acres total = 37,500 gpd.) Then, total demand is converted to AFY and rounded to the nearest 5. (e.g. 37,500 gpd * 365 days/year / 325,851 gals per AF = 40 AFY.)
(d) Recycled water will not be available until mid 2010 at the earliest. Therefore, the developer will need to plan for landscaping to be served by domestic water up to the time when recycled water is available.

3.10 Demand Summary

The key numbers for the City are:

1. Current Water Demand (2007) - Approximately 28,490 AFY
2. Projected Water Demand (2030) with Sakioka Farms Project - Approximately 42,455 AFY
3. Projected Demand – Sakioka Farms Project - Approximately 1,025 AFY
4. Percentage of 2030 Demand for Sakioka Farms Project - Approximately 2.4 percent
5. Percentage of Demand Increase for Sakioka Farms Project - Approximately 7.3 percent

Section 4: Demand Management Measures

The UWMP includes a description of demand management measures defined by the California Urban Water Conservation Council (CUWCC). "Demand management," as applied to water conservation, refers to the use of measures, practices, or incentives implemented by water utilities to permanently reduce the level or change the pattern of customer water demand.

In 2005 the City became signatory to the California Urban Water Conservation Council (CUWCC) document titled, *Memorandum of Understanding Regarding Urban Water Conservation in California* (MOU). The CUWCC was formed in 1991 and is composed of over 150 urban water suppliers and 20 environmental organizations. Membership in the CUWCC is not mandatory. A primary objective of the CUWCC is to encourage implementation of reasonable water conservation measures in urban areas.

Provided below is a brief summary of the City's demand management measures. All aspects of the 14 BMP's under City control are anticipated to be implemented with the possible exception of a commodity-based sewer billing system. Additionally, the City intends to implement an agricultural water conservation program.

A complete description of the 14 BMP's is contained in Section 5 of the 2005 UWMP.

Table 4-1 shows the estimated projected water savings due to the demand management program.

TABLE 4-1
WATER DEMAND PROGRAM – PROJECTED WATER SAVINGS
(2006 - 2008)

BMP	2006	2007	2008
1. SFR/MFR Water Surveys	75	225	375
2. Resid. Plumb. Retrofit	25	75	125
3. System Water Audits, Leak	30	120	210
4. Metering	30	75	120
5. Large Landscape	0	50	140
6. High eff. Wash. Mach Rebate	10	25	40
7. Public Relations	Not estimated per CUWCC		
8. School Education	Not estimated per CUWCC		
9. CII Conservation	80	160	240
10. Wholesale Agencies	For information from wholesalers – not a City program		
11. Conservation Pricing	Water savings already in place		
12. Conservation Coordinator	Water savings reported in other BMP's		
13. WW Prohibition	No specific savings identified		
14. Resid. ULFT	160	350	540
Total	**410**	**1,080**	**1,790**

Source: 2005 UWMP, Table 5-19.

Table 4-2 provides an estimate of the cost effectiveness for the demand management program in terms of the cost of the programs divided by the number of AF saved. This estimate can then be compared to the "marginal" cost for adding new water supply. The cost per AF goes down beyond 2010 since the water savings is cumulative for most of the programs where earlier expenditures will reap benefits over years to come.

TABLE 4-2
COST EFFECTIVENESS SUMMARY[(a)]

Total Costs (2006 - 2010)	$6,260,000
Total Benefits	8,800 AF
Time Horizon	5 years (2006-2010)
Cost of Water ($ per AF)	$700
Water Savings (AFY)	920 AFY by 2010

Source: 2005 UWMP, Table 8-20.
Note: (a) Applicable to each item in Table 4-1.

The 2005 UWMP included a 5 percent reduction in total demand for water conservation. This assumes that the City continues with its current efforts and expands the programs identified in the UWMP.

Section 5: Water Supply Analysis

Section 2 discusses current and future water supply sources. Section 3 discusses water demands. This section compares supplies and demands under several scenarios for the period 2005 through 2030 and then presents recommendations with respect to the future supplies for the City.

Since the analysis includes the demands from all anticipated development through 2030, the findings are applicable for this and other WSAs prepared in accordance with Senate Bills 610 and 221.

5.1 Water Supply and Demand Summary

Tables 5-1 and 5-2 provide a summary of the City's projected water supplies and demands.

TABLE 5-1
PLANNED WATER SUPPLIES (AFY)

Water Supply Sources	2010	2015	2020	2025	2030
CMWD Allocation Delivery[(a)]	14,100	14,100	14,100	14,100	14,100
UWCD Delivery[(b)]					
-From Allocation	6,800	6,800	6,800	6,800	6,800
-From Credits	0	0	0	0	0
GW Production from City Wells[(c)]					
-From Baseline Allocation	820	820	820	820	820
-From Historical Allocation	8,415	8,415	8,415	8,415	8,415
-From Transferred Allocation	1,490	1,490	1,490	1,490	1,490
-From Credits	0	0	0	0	0
M&I Supplemental Water[(d)]					
-From Existing Program	4,000	4,000	4,000	4,000	4,000
-From Augmented Program	5,000	5,000	5,000	5,000	5,000
GREAT Program[(e)]					
-From exchange with farmers for increased GW pumping rights	0	475	6,975	6,975	6,975
-From credits for groundwater recharge/seawater injection barrier	0	1,300	7,300	7,300	7,300
Total (rounded)	40,625	42,400	54,900	54,900	54,900

Source: City of Oxnard Water Supply Strategies 2006-2016 Report and 2005 UWMP.
Notes: Values rounded to the nearest 5.

(a) Per 2005 UWMP, City's Tier 1 allocation minus the PHWA reservation.

(b) This assumes the most conservative availability of City's allocation from UWCD; that the GMA implements the full 25 percent cutback by 2010. The Credits depicted here are those used to meet demand and are not representative of the City's cumulative credit balance with UWCD. No deliveries from the credits are shown because there is sufficient supply to meet demand without using these credits. As of the end of 2006, the City had approximately 7,314 AF of stored credits with UWCD.

(c) Includes the existing 15 percent cutbacks but no future cutbacks in City's allocation. Transferred Allocation includes groundwater allocation from converted agricultural lands and from the OVMWD to date. It assumes the most conservative availability of Transferred Allocation since the Transferred Allocation will increase as private agricultural land is converted to City M&I demand by future development. An estimate of potential transferred allocation is currently being developed. The credits depicted here are those used to meet demand and are not representative of the City's cumulative credit balance with the GMA. No deliveries from the credits are shown because there is sufficient supply to meet demand without using these credits. As of the end of 2006, the City had approximately 12,294 AF of stored groundwater credits with the GMA.

(d) M&I Supplemental water assumed to be 4,000 AFY until 2010, when it increases to 9,000 AFY with the incorporation of the augmented program.

(e) Of the 17,500 AFY of expected supply from the Great Program, approximately 6,975 AFY would be delivered to farmers in exchange for their groundwater pumping rights and 7,300 AFY would be used for groundwater recharge or the seawater injection barrier in exchange for increased groundwater pumping rights. The remaining 3,225 AFY of supply would be delivered to M&I users and has been credited to the overall City demands and is this not included in this Table as a supply. Brine loss from the Desalters was also included with overall City demands and thus is not included in this table. The first Phase of GREAT Program is projected to be a 6.25 MGD facility (6,300 AFY) and is planned for operation by 2010-2011. The Blending Station No. 1 Desalter is expected to be on-line in 2009 producing 7.5 MGD or 8,400 AFY. The Blending Station No. 3 Desalter is expected to be on-line in 2011 producing 5.0 MGD.

TABLE 5-2
PROJECTED WATER DEMANDS (AFY)

User Class	2010	2015	2020	2025	2030
Single Family Residential	14,350	15,435	16,115	16,540	16,715
Multi-Family Residential	5,775	6,675	6,955	7,135	7,210
Commercial	4,970	5,285	5,655	5,820	5,890
Industrial	4,215	5,410	6,160	6,375	6,465
Landscape	4,310	4,645	5,090	5,305	5,395
Other	560	765	780	780	780
Total	**34,180**	**38,215**	**40,755**	**41,955**	**42,455**

Source: Table 3-5.
Note: Values rounded to the nearest 5.

5.2 Water Supply and Demand Comparison

Tables 5-3 through 5-9 provide a comparison of the water supply and demands for normal, single dry, and multiple dry water years. They show that for all water years from 2010 to 2030 the City's supplies are sufficient to meet demand. The normal year scenario assumes the same supplies and demands presented in Tables 5-1 and 5-2. As the City's supplies in Table 5-1 are firm, no change in available supply is anticipated for the City in a single dry year. Demands are also assumed to remain the same for a single dry year. For a multiple dry year scenario, it was assumed that a 5 percent reduction in available supplies may occur between the years 2006 and 2008 until the augmented M&I Supplemental Program and the GREAT Program are operational. Should a multiple dry year occur during this period the City may be dependent on using groundwater credits to meet demands. Additionally, a 5 percent reduction in demand was assumed from 2006 to 2009 for the multiple dry water year scenario consistent with the 2005 UWMP. It should also be noted that estimates of water demand are highly conservative and include a contingency factor.

TABLE 5-3
PROJECTED SUPPLY AND DEMAND COMPARISON SCENARIO: NORMAL YEAR (AFY)

	2010	2015	2020	2025	2030
Supply totals	40,625	42,400	54,900	54,900	54,900
Demand totals	34,180	38,215	40,755	41,955	42,455
Difference	6,445	4,185	14,145	12,945	12,445
Difference as percent of Supply	16%	10%	26%	24%	23%
Difference as percent of Demand	19%	11%	35%	31%	29%

TABLE 5-4
PROJECTED SUPPLY AND DEMAND COMPARISON SCENARIO: SINGLE DRY YEAR (AFY)

	2010	2015	2020	2025	2030
Supply totals	40,625	42,400	54,900	54,900	54,900
Demand totals	34,180	38,215	40,755	41,955	42,455
Difference	6,445	4,185	14,145	12,945	12,445
Difference as percent of Supply	16%	10%	26%	24%	23%
Difference as percent of Demand	19%	11%	35%	31%	29%

TABLE 5-5
PROJECTED SUPPLY AND DEMAND COMPARISON SCENARIO: MULTIPLE DRY YEARS (2007 – 2010) (AFY)

	2007	2008	2009	2010
Supply totals	27,066	35,625	40,625	40,625
Demand totals	27,066	28,147	29,228	34,180
Difference	0	7,478	11,397	6,445
Difference as percent of Supply	0%	21%	28%	16%
Difference as percent of Demand	0%	27%	39%	19%

TABLE 5-6
PROJECTED SUPPLY AND DEMAND COMPARISON SCENARIO: MULTIPLE DRY YEARS (2011-2015) (AFY)

	2011	2012	2013	2014	2015
Supply totals	40,980	41,335	41,690	42,045	42,400
Demand totals	34,987	35,794	36,601	37,408	38,215
Difference	5,993	5,541	5,089	4,637	4,185
Difference as percent of Supply	15%	13%	12%	11%	10%
Difference as percent of Demand	17%	15%	14%	12%	11%

TABLE 5-7
PROJECTED SUPPLY AND DEMAND COMPARISON SCENARIO: MULTIPLE DRY YEARS (2016-2020) (AFY)

	2016	2017	2018	2019	2020
Supply totals	42,400	42,400	42,400	42,400	54,900
Demand totals	38,723	39,231	39,739	40,247	40,755
Difference	3,677	3,169	2,661	2,153	14,145
Difference as percent of Supply	9%	7%	6%	5%	26%
Difference as percent of Demand	9%	8%	7%	5%	35%

TABLE 5-8
PROJECTED SUPPLY AND DEMAND COMPARISON SCENARIO:
MULTIPLE DRY YEARS (2021-2025) (AFY)

	2021	2021	2023	2024	2025
Supply totals	54,900	54,900	54,900	54,900	54,900
Demand totals	40,995	41,235	41,475	41,715	41,955
Difference	13,905	13,665	13,425	13,185	12,945
Difference as percent of Supply	25%	25%	24%	24%	24%
Difference as percent of Demand	34%	33%	32%	32%	31%

TABLE 5-9
PROJECTED SUPPLY AND DEMAND COMPARISON SCENARIO:
MULTIPLE DRY YEARS (2026-2030) (AFY)

	2026	2027	2028	2029	2030
Supply totals	54,900	54,900	54,900	54,900	54,900
Demand totals	42,055	42,155	42,255	42,355	42,455
Difference	12,845	12,745	12,645	12,545	12,445
Difference as percent of Supply	23%	23%	23%	23%	23%
Difference as percent of Demand	31%	30%	30%	30%	29%

5.3 Recommendations

Recommendations which remove any potential shortages from the above analyses for the period 2005 through 2030 are:

1. Build up City Groundwater Credits between 2008 and 2010 for use in 2011 through 2016 until the GREAT Program expansion is operational.
2. Continue negotiations for Augmented M&I Supplemental Water Supply Program and obtain approval by 2009.
3. The City also has the option to pump additional groundwater from City wells above their allocation. However, this may result in additional surcharges from the GMA.
4. The tables above are predicated on the City's utilizing its full purchase order entitlement of CMWD water, less the PHWA water use and reservation as discussed above. However, in 2007 PHWA only used 2,220 AFY of its 3,262.5 AFY of reservation. Thus the City could potentially purchase an additional 1,040 AFY of CMWD in times of need.
5. Implement the initial phase of the GREAT Program (for 6.25 MGD) by 2011 when demand starts to increase. If the facility is delayed, then other sources of water would be needed. A portion or all could be from the rest of the CMWD Tier 1 rate or even Tier 2 water.
6. The City also has options of purchasing unused O-H water from other water purveyors.

7. Plan for the first expansion of the GREAT Program to be an additional 6.25 MGD (to 12.5 MGD).
8. Plan for the second expansion of the GREAT Program to be an additional 6.25 MGD (to 18.75 MGD). Before designing the second expansion, in particular, the demand and surplus projections should be re-visited.
9. The City could also implement additional temporary water demand measures for periods when supply is not sufficient to meet demand as outlined in City Ordinance No. 2729, "City of Oxnard Water Conservation and Water Shortage Response Ordinance," included as Appendix G.

5.4 Additional Scenario Discussion

For the groundwater resources, should there be over-drafting of the Basin during dry years, the GMA could impose further restrictions; however, this is not expected since the GMA imposed reductions in groundwater pumping are designed, in part, to provide for firm allocations to the groundwater producers.

Earlier sections have discussed the GREAT Program. Once operational, the GREAT Program will be very reliable since the source of the recycled water that will create the additional pumping allocations for the City. During dry or drought conditions, the flow to OWTP is expected to remain relatively constant. The portion from infiltration/inflow (I/I) is impacted by weather conditions and some decrease can be expected from that sector. However, the I/I flow is a small part of the total flow. There will be sufficient flow from the OWTP to furnish projected recycled water flows to the GREAT AWFP.

While there is no reason to believe that the City would have a shortage based on its portfolio of water resources, the following is presented to address the "what if" question. Should there be a shortage of water supply, then the City would have the following options:

- If the shortage were with the supply from the MWDSC through CMWD, and this would also pertain to an emergency situation such as a break in the feeder line from Springville Reservoir or more serious problems within the CMWD delivery system upstream of that location, then the City could: either impose water restrictions in accordance with the municipal code or could increased groundwater pumping, using either groundwater credits or paying the penalties.
- Should the shortage be with the supply from the UWCD, then the same potential mitigation measures pertain as discussed above.
- No shortage of local groundwater is anticipated. However, should that situation occur, then the City would have the option of purchasing additional water from CMWD.

The point of the above discussion is that the City, with implementation of the GREAT Program, will be in a somewhat unique position with respect to the diversity of its portfolio to maintain a reliable water supply.

5.5 Summary of Findings

The water supplies and demand analysis, assuming implementation of the recommendations discussed in this report, indicate:

1. The importance of the GREAT Program and its timely implementation.

2. The importance of the Augmented M&I Supplemental Water Supply Program and its timely implementation.

3. The City can meet its water demands without relying on a number of alternative sources once the GREAT Program expansion and Augmented M&I Supplemental Water Supply Program are operational. Alternative sources, although likely to be available during the period, are individually not reliable sources of water for the reasons indicated. However, taken collectively, it is difficult to develop a scenario where all of the sources are not available in sufficient supply to reasonably meet anticipated demands within the City.

4. Prior to the initial phase of the GREAT program, the City will have little margin in particular years to meet the projected demands. However, the demands have been developed with allowances such that the surplus of supply over demand presented in the tables in Section 5.2 is conservative.

5.6 Catastrophic Events, Power Outages, Reduced Revenues

5.6.1 Catastrophic Events

Catastrophic planning (Reference: 2005 UWMP, Appendix A, State Tables – No. 25) for a water system in the Southern California area most typically involves discussions of earthquake events. While other events can cause disruption of water supplies, earthquakes have the ability to impact entire systems.

Compared to many other water purveyors, the City is better positioned since it currently receives water from three (3) sources and in the future will add additional water supply sources as a result of the GREAT Program as described elsewhere in this document. Those sources are:

- Calleguas Municipal Water District (imported surface water). Under current and normal circumstances, 100 percent of water that CMWD delivers is from the MWDSC. MWDSC receives most of its water from the SWP and from the Colorado River. In addition, over the past few years they have added a number of programs involving the development of water in the Southern California area.

  As discussed in CMWD's UWMP, a concern is that CMWD receives water from MWDSC via one feeder pipeline. In the past CMWD has only been able to rely on Lake Bard with its 8,000 AF of storage (the portion acceptable for potable water delivery) as a back-up supply. However, with the full development of the Las Posas Project, CMWD will have a second substantial source of water storage.

For the City, the concern is receiving supply via two parallel CMWD feeders (Oxnard-Santa Rosa Feeders Nos. 1 and 2) and through one (1) reservoir, the Springville Reservoir. This concern is mitigated by the additional sources of water available to the City as described below.

- United Water Conservation District (groundwater). The area of vulnerability is the pipeline that delivers water from UWCD to the City. The groundwater wells in the UWCD system should be relatively reliable, given that there are multiple wells. Since UWCD water only accounts for less than 25 percent of the City's current supply, a failure of the UWCD delivery system could be overcome by taking water from other sources.
- City Groundwater Wells. The City has multiple groundwater wells within its system and it is highly unlikely that an event would occur that would impact all of the City wells. The most critical facility it is Blending Station No. 1 because the majority of the City's current water demand flows through that facility. With the completion of the Blending Station No. 3 facility in 2006, the City has increased delivery capabilities and redundancy.
- GREAT Program. The GREAT Program will initially develop approximately 7.5 MGD (approximately 7,600 AFY assuming a 90 percent available status) of potable water from the Desalter project. The GREAT Program also includes recycled water system although it is not anticipated that any of that water would be available for direct potable use during a catastrophic event.

Should there be a significant decrease or cessation in the receipt of water from CMWD, the City would increase deliveries of water from its groundwater wells and/or UWCD. The City would then make adjustments at a later date to not exceed its groundwater allocations by taking more CMWD water when it becomes available.

Sharp curtailment of groundwater, from either City wells or UWCD, could be offset by increased purchases of CMWD water, although at the higher Tier 2 water rate, if CMWD water is available.

Likewise, curtailment of GREAT Program water could be mitigated by increased groundwater pumping with subsequent adjustments as the GREAT Program delivers more water at a subsequent date, although such adjustments might have to be spread over a two-year period, depending on when the curtailment occurred. For example, a curtailment of GREAT supplies late in a particular year would cause increased groundwater pumping and/or water purchases from CMWD. In either event, there would be insufficient time to meet the CMWD and groundwater pumping limitations. It is assumed that for an unusual circumstance some relaxation of normal rules will be possible.

As a last resort, the City could implement reduced deliveries to customers as a result of its current ordinance for demand management under drought conditions.

Overall, the City benefits from diversity in its water system portfolio to respond to a catastrophic earthquake event.

Since the City is a coastal City, it is subject to tsunami events. The City's water system would not be expected to be significantly impacted for the following reasons:

1. No City water facilities are located along the coastline. All are inland and at an elevation sufficiently above sea-level, when factoring in the distance from the shoreline, to avoid inundation.

2. The facilities at the lowest elevation are the City's Wastewater Treatment Plant and the planned Advanced Wastewater Purification Facility. Both are needed for the GREAT Program to be functional in the long-term. Should either or both be non-operational, the City could still pump groundwater, and it is presumed that the agricultural properties intended to be served by GREAT Program water would use their groundwater pumps until the GREAT Program is again operational.

5.6.2 Regional Power Outages

The City's wells and blending stations require power to be operational (Reference: 2005 UWMP, Appendix A, State Tables – No. 25). Also, the AWPF and the OWTP require power. Having a backup generator is the key to mitigating a power outage, whether a local outage or a regional outage.

For local power outages, the most critical facility is Blending Station No. 1 since the majority of flow is through this facility.

Blending Station No. 1 has essentially full power back-up for all its facilities including the associated wells. With the completion of Blending Station No. 3 in 2006, there is greater flexibility to respond to an outage situation. Blending Station No. 3 has about 80 percent backup power for its four (4) well system. Since only 3 wells are planned to operate at any one time, the power backup can be considered as essentially 100 percent.

5.6.3 Fiscal Impacts of Reduced Deliveries

Reduced water deliveries could result from either a catastrophic event or drought-imposed restrictions. In turn, revenues would decrease to the City, while expenses would remain relatively constant or possibly increase in response to the catastrophic event or drought.

The City operates its water system on an "enterprise fund" basis meaning that the revenues and expenses are distinct from other functions of the City including the General Fund.

The City's Water Division has both operating and capital funds. Operating funds that are intended for the purchase of water, treatment and distributing of water and City personnel involved in the delivery of water, primarily those from the Water Division. Capital funds are intended for the construction of new facilities, whether as a result of new development or for major replacement projects of existing infrastructure.

The City's 2005/06 budget includes approximately $24 million for operating expenses and the average budget includes $4 to 6 million per year for the capital improvement program.

With the implementation of the GREAT Program, the Water Division debt obligations will increase to fund the anticipated improvements. As noted above, the City has already issued almost $100 million in bond funding for portions of the GREAT Program. Subsequent funding will occur in 2009 and beyond. The indebtedness will be paid by water charges and capital facilities charges.

For the revenue from water rates, slightly over 50 percent of the revenue is expected to come from the fixed component of the rates and the remainder is from the commodity or variable component of the rates.

The City's financial planning calls for the maintenance of reserve funds that would be available, if needed, following a catastrophic event or during a drought period, either of which would result in reduced revenues. The current balance is on the order of $6 million, although this may be reduced to assist with the current Phase I bond payments.

Should there be a serious drought with reduction in water deliveries, SB 610 requires an evaluation of the fiscal impact. The requirement is to evaluate a reduction of water deliveries of up to 50 percent. Since the fixed component, or service charge, revenue would not change, the reduction in revenue would be approximately 25 percent. Since a portion of the expenses is tied to the purchase of water from CMWD, the expenses would also be reduced, significantly mitigating the revenue decrease. Assuming that the purchases of water from CMWD are reduced by 50 percent, then the expenses would be decreased by approximately $3 million at the current rates or about 12.5 percent. The remaining shortfall, assuming that there is no increase in water rates could be made up through the use of reserves.

5.7 Combined Resources Reliability – WSA

This section addresses the overall issue of "adequacy" as required by SB610/221 and the California Water Code. The objective of the legislation is that development projects of a certain size (over 500 units for residential and equivalents for other developments) not proceed unless there is a finding of adequacy for the succeeding 20-year period.

First, it should be stated that adequacy in this context must be interpreted as there being substantial evidence that there is a reasonably assured water supply for the projected development project. Few, if any, water systems have all capital facilities in place sufficient to meet demands for the next 20 years, particularly when considering the wholesale water purveyors where imported water supplies are needed. However, there can be a finding of adequacy based on the published documents that demonstrate an understanding of the needs as well as the ability of the water purveyor(s) to implement the improvements. The ability to implement is dependent on being able to receive permit(s) and other regulatory approvals as well as having a financing plan to fund the improvements.

The City is in a somewhat unique position. In the early 2000's a decision was made to not increase deliveries from the CMWD. This decision was tied to both economic and reliability considerations and with the recognition that the City had a valuable unused resource - its wastewater. The result of that decision is reliance on the GREAT Program, as described in various documents.

In the Southern California area, portions are entirely dependent or substantially dependent on imported water from the MWDSC, either directly or through an intermediate wholesale water purveyor, such as the CMWD. Water reliability and findings of adequacy for the retail water purveyor are, in those instances, dependent on the findings of the regional purveyors, and those purveyors have in the past and continue to provide assurances of reliability. Those assurances are based on existing infrastructure and commitments as well as a variety of capital programs and policies designed to assure adequacy.

Were it not for the GREAT Program, the City would be far more dependent on imported water supplies purchased through CMWD. Therefore, the assessment of adequacy depends on the reasonably anticipated implementation of the GREAT Program.

The status and next steps for the implementation of the GREAT Program is discussed in detail in Section 2.10, and is summarized as follows:

- The GREAT Program APS was completed in 2002.
- The Final Program Environmental Impact Report (SCH#2003011045) for the GREAT Program was adopted and certified by the City in September 2004.
- To implement the Phase 1 portion of the GREAT Program (6.25 MGD facility), the City has issued approximately $95 million in bonds, most of which is for GREAT Program capital facilities.
- An additional increment of bond financing is planned for early 2009 to support the remaining GREAT Program, Phase 1 improvements.
- The Municipal & Industrial (M&I) Recycled Backbone Water System has been added as a supplement to the GREAT Program. The City Council has approved this program, along with certifying the associated environmental review. The City has also adopted a mandatory recycled water use ordinance to complement this program. It is planned to have a capacity of 1,275 AFY of which approximately 1,250 AFY of recycled water (i.e., an additional water source) users have been identified for the City's water portfolio. Completion of the M&I recycled system (at least the first phase) is set to match completion of the AWPF.
- While there are additional permits and regulatory approvals required for the GREAT Program, recycled water systems of this nature are common in Southern California. The permitting and regulatory processes are relatively routine and well understood. The use of recycled water meets both Regional and State goals adding confidence to the approval process.
- At this point, the overall GREAT Program mixes agriculture use (creating groundwater allocation or credit transfers) and groundwater injection (creating groundwater allocation credits). The City has flexibility in this regard in that either increasing or decreasing the injection of recycled water into the groundwater can accommodate changes in agricultural use from those reflected in the GREAT Program APS.

5.8 Seasonal/Climatic Shortages

Seasonal shortages are not an issue since water systems planned by the City and its wholesale purveyors are designed to deliver water considering the seasonal differences in precipitation. CMWD and MWDSC systems are based on using stored water, if necessary, during the dry months of the year. The GMA allocations are on an annual basis and not on a seasonal basis. These two facts mitigate the impact of seasonal shortages from rainfall.

Southern California is subject to drought conditions, however, the City's current and ultimate water delivery systems and agreements are more drought-resistant than any one source. This is because:

- The City has multiple sources of water. Should one source be subject to drought, it is less likely that all sources would be similarly impacted.
- Both CMWD (and its supplier MWDSC) and UWCD have indicated they can provide water deliveries up to the contracted/allotted amounts even considering a 3-year drought condition.
- CMWD's Las Posas Basin ASR project will provide additional reliability.
- The City will implement the GREAT Program to provide additional reliance in the event of a drought.

Overall, it is not envisioned that drought or dry-year events such as form the basis of planning will cause the City to have water shortages.

5.9 Availability of Water Supply – Agricultural and Industrial

The SB 221 verification requires a description of the reasonably foreseeable impacts of the proposed development on the availability of water resources for agricultural and industrial uses within the City's service area that are not currently receiving water from the public water system but are utilizing the same sources of water.

The analysis contained in this report incorporates the demand requirements for all existing and all proposed industrial projects. In addition, demands have been projected for all land that has been zoned for industrial uses.

The City's water resource planning has considered the water demands for the conversion of agricultural lands. Because of the SOAR Initiative (Save Our Agricultural Resources), boundaries have been established for the City and most agricultural properties just outside the City limit that receive water from individual groundwater resources. Because the GMA has established limits on groundwater production, as discussed earlier in this report, the water resources planning to meet the City's needs will not have any negative impact on the availability of groundwater to the agricultural interests, the vast majority of which are located outside the City.

Further, with implementation of the GREAT Program, there will be increased availability of a reliable water supply to agricultural interests as recycled water is made available.

5.10 Conclusion – WSA/Verification

Overall, the findings of this WSA (SB 610) and Water Supply Verification (SB 221) are that:

A. The WSA has considered water demands of the Sakioka development project as well as water demands from other proposed or anticipated developments for the period 2007 to 2027 (actually 2005 to 2030).

B. Water supplies as identified herein from the CMWD and the UWCD can be considered as firm for the period 2005 to 2030.

C. The City can expect reliability of its groundwater pumping allocation and will be able to increase that allocation by the transference of groundwater pumping rights as development occurs within the City; to date this has increased the allocation to approximately 10,700 AFY for the City's groundwater wells. Further, as discussed in 'D' below, the GREAT Program will add to the groundwater pumping allocation.

D. The GREAT Program is an important element in providing water supply to the Sakioka development project along with other proposed or anticipated development. The GREAT Program will include additional water supply from increased groundwater pumping allocations and also from the planned Desalter that is an inherent part of the project. The GREAT Program is well defined and construction of the first phase is underway. Subsequent phase(s) are not yet fully designed or permitted; however, given the commitments of the City to the GREAT Program and the on-going studies to further describe and provide funding for the program, full implementation can be reasonably anticipated.

Based on the facts cited and analysis above, this WSA concludes and verifies that the City's total, reasonably projected water supplies available during normal, single dry and multiple dry water years during a 20-year projection will meet the water demand associated with the project, in addition to the City's existing and planned future uses.

The City of Oxnard has had this Water Supply Assessment and Written Verification prepared as of the date set forth below. The undersigned hereby represents that the he (or she) has the authority, on behalf of the City of Oxnard, to execute and make effective this Water Supply Assessment and Written Verification.

City of Oxnard

By:_________________________________ ___________________________

Date

(Name)___________________________

(Title)__________________________

References

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Meeting Date: 10/27/2009

ACTION	TYPE OF ITEM
☐ Approved Recommendation	☐ Info/Consent
☐ Ord. No(s). ______	■ Report
☐ Res. No(s). ______	☐ Public Hearing (Info/consent)
☐ Other ______	☐ Study Session

Prepared By: Anthony Emmert Agenda Item No. O-1

Reviewed By: City Manager City Attorney Finance Public Works

DATE: October 19, 2009

TO: City Council

FROM: Mark S. Norris, Assistant Public Works Director
Public Works Department, Utilities Services Branch

SUBJECT: **Water Supply Outlook and Confirmation of Polices Regarding Projects Creating New Water Demands**

RECOMMENDATION

That City Council:

1. Consider a presentation on the current status of statewide and water supplies, long-term water planning, the Groundwater Recovery Enhancement and Treatment (GREAT) Program and the Water Conservation Program;
2. Affirm the January 15, 2008 policy regarding new water supplies for proposed development projects and provide direction regarding strengthening the policy through modification of the City's Water Shortage Emergency Ordinance,
3. Consider and provide direction regarding intensification of the City's response to the current water supply shortage, as per the Water Shortage Contingency Plan.

SUMMARY

Lower than average precipitation over the past few years, conveyance and storage deficiencies in the State Water Project system, and court decisions regarding endangered species in the San Francisco Bay-Sacramento-San Joaquin Delta (Bay-Delta) have led to reductions in imported water deliveries to the City of Oxnard. Efforts to protect endangered species on the Santa Clara River, intensification of water use by agricultural pumpers, and difficulty to recharge some groundwater basins ~~has~~ have strained local groundwater resources used by the City. In response to this, the City is enhancing its Water Conservation Program, in order to assist residents and businesses improve their water efficiency, and working to implement the first phase of the GREAT Program recycled water system, which will produce a new highly-treated water source suitable for landscape irrigation, industrial processes, future agricultural irrigation and future groundwater recharge. As the City can no longer expect to receive additional imported water to meet the needs of new development and redevelopment projects, the City is also conditioning proposed new projects to be water neutral. Project proponents must provide water rights, water supplies, or financial or physical offsets equal to the projected water needs of their projects. Staff recommends that Council consider strengthening this policy by adoption of an ordinance. In anticipation of future potential imported water allocation reductions, staff recommends that Council consider mandatory water budgets for its customers and provide guidance on the methodology for creating the water budgets. In the long-term, the City will still be able to meet its water needs if it continues to actively pursue increased water use efficiency, regional cooperation and implementation of the GREAT Program. However, the dramatic recent reduction in the reliability of its imported water source will likely require decisive action by the City in the short-term.

DISCUSSION

Water Outlook

Water Sources. The City of Oxnard currently receives its drinking water supplies from three sources: 1) Northern California rainfall and snowmelt runoff derived from the State Water Project and purchased from the Calleguas Municipal Water District (CMWD), a member agency of the Metropolitan Water District of Southern California (MWDSC); 2) local groundwater purchased from the United Water Conservation District (UWCD), derived from Santa Clara River diversions and the operation of the Freeman Diversion, El Rio Spreading Basins and Wellfield, and Oxnard-Hueneme Pipeline System; and 3) local groundwater pumped from City-owned wells.

Imported Water. The imported water purchased from CMWD has historically made up approximately 50% of the City's total water supply. Lower than average precipitation over the last several years, conveyance and storage deficiencies in the State Water Project system, and court decisions regarding endangered species in the San Francisco Bay-Sacramento-San Joaquin Delta (Bay-Delta) area have led to reduced imported water deliveries. These reduced State Water Project deliveries led MWDSC in mid-2009 to reduce water deliveries to its member agencies, including CMWD, and consequently retail water purveyors, including the City of Oxnard. As the City of Oxnard and Port Hueneme Water Agency share the same CMWD turnout, the two agencies must reduce their usage of imported water by approximately 23 percent during the Fiscal Year 2009 – 2010 period, or face a fine of up to $5 million in mid-2010. Due to the very long time and large expense it will take to solve the State Water Project problems, the City no longer expects to receive its full contracted amount of imported water, but must produce or purchase additional water to meet its projected demands.

Groundwater. The groundwater purchased from UWCD has historically made up approximately 25% of the City's water supply, and the groundwater pumped from City wells has historically made up approximately the other 25% of the City's total water supply. Lower than average precipitation over the last several years, efforts to protect endangered species on the Santa Clara River, intensification of water use by agricultural pumpers, and difficulty to recharge some groundwater basins have strained local groundwater resources. Both agricultural and municipal groundwater pumpers have implemented significant conservation measures, and the Fox Canyon Groundwater Management Agency (FCGMA) continues to refine its regulatory practices, in order to maintain the long-term integrity of our local groundwater resources. However, the general regional consensus is that some additional efficiency improvements must be made and that recycled water use should be expanded. The City's GREAT Program is one of the most significant regional projects that will expand recycled water use, and is supported in the FCGMA's Groundwater Management Plan.

Water Conservation. In response to the constraints upon its water supplies, the City of Oxnard continues to develop and refine its Water Conservation Program. The City's work on this Program includes developing a Water Conservation Master Plan, updating the City Code regarding water waste and implementing all of the Best Management Practices (BMPs) of the California Urban Water Conservation Council. Staff expects the City's consultant to complete the administrative draft of the Water Conservation Master Plan in the very near future. The Plan will analyze a suite of cost-effective program elements that could be reasonably implemented over time to produce water savings. Staff plans to present the Plan to the Utilities Task Force in an upcoming meeting and then to the City Council. In June 2009, the City updated its Water Conservation Ordinance, strengthening its water waste prohibition provisions. Staff has been actively educating its residents and businesses regarding water waste by numerous means, including patrols. In general, reaction to the education effort has been positive. City staff has continued to work toward full implementation of the Best Management Practices of the California Urban Water Conservation Council.

GREAT Program Recycled Water. The City also continues to implement its GREAT Program, primarily developing the first phase of the recycled water component. The first phase of the GREAT Program's recycled water system is sized to make up for the FCGMA groundwater pumping cutbacks over the last 20 years to meet the needs of existing water customers. Subsequent phases of the recycled water system will generate new groundwater pumping credits to meet new demands for approved development projects.

The Advanced Water Purification Facility (AWPF) Phase 1 Project will treat secondary-treated wastewater from the City's Wastewater Treatment Plant using microfiltration, reverse osmosis and advanced oxidation to produce 6.25 million gallons per day of purified recycled water that will be used for landscape irrigation, industrial processes and future groundwater recharge. Using the recycled water for these non-potable purposes will allow the City to stretch its drinking water resources further. The project is currently out to bid. Staff is currently negotiating with the recommended consultant for construction management services. The City expects to start construction on the AWPF Phase 1 Project before the end of the year. Due to the requirements of the $20 million dollar U.S. Bureau of Reclamation (USBR) grant, the project must be completed and delivering recycled water by September 2011.

Staff and consultants are also working on the design of the Recycled Water Backbone Pipeline Phase 1, which will deliver the recycled water to future recycled water customers along the Hueneme Road and Ventura Road corridors. The City expects to complete design work within the next few months and to start construction in early 2010. In order to meet the terms of the USBR grant, the pipeline projects also must be completed by September 2011.

Additionally, the City must work with potential recycled water customers to evaluate their on-site recycled water needs and to design and construct retrofits to their existing on-site water systems, in order to allow the use of recycled water. Staff is currently working on developing a request for proposals to select an engineering design firm to assist with the retrofits work. Discussions with potential recycled water customers are ongoing. This effort will need to intensify over the next few months, in order to have customers ready to receive recycled water when it becomes available.

Staff and consultants are currently working with the California Regional Water Quality Control Board to modify the City's existing National Pollutant Discharge Elimination System (NPDES) permit to allow for the AWPF's membrane concentrate discharge to the Pacific Ocean and with the California Department of Health Services (CDPH) to permit the use of recycled water. CDPH permitting requires significant effort, including an administrative & user permitting plan, operations & maintenance plan, staffing plan and training plan for City staff and future recycled water customers. These plans must be completed within the next few months.

Water Planning in Support of City's General Plan. In support of its General Plan, the City's blueprint for future growth, staff conducts both short- and long-term water planning, in order to ensure that the water will be available to meet the needs of both existing and future water customers. The City's Urban Water Management Plan (UWMP) 2005 analyzed existing water demands and estimated the water demands of potential development and redevelopment projects known at the time, including some that were not included in the General Plan 2020. Due to the limitations on existing water supplies, the UWMP 2005 confirmed the need for the City to continue to improve its water efficiency through its Water Conservation Program and to develop recycled water as a new water source. Recycled water can be either used to directly offset potable water demands by using it for landscape irrigation or industrial processes, or to gain groundwater pumping credits by delivering it to agricultural irrigators or by using it to recharge groundwater aquifers. The City plans to issue a request for proposals in the very near future to prepare an updated UWMP, in support of the General Plan 2030. Staff expects that the updated UWMP will be completed in fall 2010.

In addition to the UWMP, staff reviews the projected water demands of all significant development and redevelopment projects and prepares Water Supply Assessments. Staff also confirms any FCGMA groundwater allocations that may be available for transfer to the City if the project is approved. If the proposed project can use recycled water and a connection to the City's recycled water backbone is feasible, then the City requires the project proponent to design and construct the project to use recycled water, in order to reduce potable water demands. Historically, if a proposed project could not provide a transfer of adequate groundwater allocations to meet its projected water demands, then the City purchased additional imported water to make up the difference. Due to the serious constraints upon the State Water Project, the City is no longer able to count on any additional imported water. New water sources must be developed to meet the increased water needs of proposed development projects.

Policy Regarding New Water Supplies for Proposed Development Projects

Because of the reduced reliability of the State Water Project and unavailability of any new imported water, the City Council, at its January 15, 2008 meeting, directed staff to require that all new projects of significant size be water neutral to the City water system. Project proponents can contribute water rights, water supplies, or financial or physical offsets to achieve this. Typical options open to project proponents to do so include transfers of FCGMA groundwater allocations to the City, participation in expansions of the City's GREAT Program recycled water system through physical or financial contributions, and participation in water conservation projects that produce measurable sustainable water savings. Several proponents of significant projects have complied with this requirement and several others are currently in negotiations with the City. Very small projects, such as single family residential projects or business tenant improvements have been exempted from this requirement, to date. Staff recommends that the City affirm this policy through an amendment to the existing Water Shortage Emergency Ordinance, as it has been effective at protecting existing utility customers while accommodating future growth if new water supplies can be developed.

Staff recommends that the following policy principles be included in the revised Ordinance:

- All proposed projects should either contribute water supplies or the financial or physical equivalent to offset the full estimated project demand. For example, a 200 acre agricultural property on which a development is proposed requiring 500 acre-feet per year of water would be granted 400 acre-feet of groundwater pumping allocation by the FCGMA. The 400 acre-feet per year would be reduced to 300 acre-feet per year by the FCGMA's 25% groundwater pumping cutbacks. The project proponent could transfer the 300 acre-feet per year allocation to the City. Under the proposed policy, the City would condition the project proponent to provide offset for the 200 acre-feet per year of project water demand that could not be met by the transfer.
- The policy would apply to all proposed projects, whether or not they were included in the existing General Plan or UWMP. Staff recommends that very small projects, such as home renovations or business tenant improvements be exempted.
- The City would develop a menu of mitigation options that may include:
    - Financial contribution toward the GREAT Program's recycled water facilities.
    - Financial contribution toward a City-controlled water conservation project or program that would generate verifiable long-term water savings.
    - Implementation of a developer-initiated water conservation project or program that would generate verifiable long-term water savings.
    - Contribution of any other additional water rights or water supplies.

Water Shortage Response Options

If the 2009 – 2010 northern and central Sierra Nevada Mountains snowpack is below average and if the State of California and other Bay-Delta stakeholders cannot quickly come to a temporary solution regarding State Water Project pumping, then MWDSC may further reduce the City's allocation of imported water for the 2010 – 2011 fiscal year. MWDSC would likely take this action in April or May 2010. If MWDSC makes further reductions, the City will likely not be able to balance its water budget by continuing its current effort of active education of its water customers and enforcement of water waste prohibitions. The City has three options to keep its water budget in balance: 1) dramatically increase its Water Conservation Program's scope and budget, 2) establish mandatory water budgets for all customers and enforce those budgets, and 3) draw down the City's emergency water reserve.

A Water Conservation Program is most effective as a sustained effort over many years to retrofit existing irrigation systems, plumbing systems, and industrial processes and to change customers' behavior. Santa Rosa, California, a city of similar size, demographics, conditions, and water portfolio to the City of Oxnard, has achieved approximately 25% water savings over the past 20 years through a sustained Water Conservation Program. It is unlikely that the City of Oxnard can achieve similar water savings within a one- or two-year period, even with dramatic increases in both the operating budget of the Water Conservation Program and a capital improvement budget to retrofit both public and private facilities. However, staff recommends that the City continue to develop and improve its Program, and to consider establishing a capital improvement program for water conservation retrofits.

The City could fairly quickly balance its water budget by establishing water budgets for all of its customers. Baselines for customers can be set using records of historical usage or by more in-depth analysis. Across-the-board percentage reductions based upon historical usage are easier to implement; however, they tend to penalize water customers who have been efficient in their water usage and reward those that were less efficient during the baseline period. Because of this equity problem, staff discourages setting water budgets based solely upon straight historical usage. The other common method of establishing water budgets is to analyze each customer's water needs and then set a customized water budget. For example, a single-family residence on a large lot may have a fairly high historical water usage, due to a significant amount of water being used for irrigation. The City could establish a water budget that would allow this customer a reasonable indoors water budget, but would require a significant reduction in the outdoor usage for irrigation. This method is much more equitable and rewards those who have been efficient, but will take much more time to prepare. It would require several months work and consultant assistance to analyze existing geographical information and utility billing database data and reprogram the utility billing system. Utilizing any type of mandatory water budgets will require that the City step-up its customer education, establish procedures and an appeal process, and dedicate significant staff time toward implementation and administration.

The City maintains an unofficial emergency water reserve, equal to approximately one year's worth of water demand. This reserve is primarily to ensure that the City can meet its water demands in the event of an emergency that would reduce or eliminate one of its water sources. For example, if the Bay-Delta experienced a significant earthquake and consequent levee failure, the resultant flooding of one or more delta islands with seawater could result in a shutdown of the State Water Project for up to two years. In that case, the City could draw-down its water reserve until such time as the Bay-Delta system could be repaired and the State Water Project reactivated. Dependent upon the final MWDSC allocation reduction for the current fiscal year, the City may end up drawing-down its reserve by approximately 5,000 to 10,000 acre-feet this fiscal year. The City could continue to draw down the reserve in ensuing years. Staff recommends retaining all or most of the reserve, as it may be needed to provide minimal water service during an emergency.

In the long-term, the City will still be able to meet its water needs if it continues to actively pursue increased water use efficiency, regional cooperation and implementation of the GREAT Program. However, the dramatic recent reduction in the reliability of its imported water source will likely require decisive action by the City in the short-term.

FINANCIAL IMPACT

None.

(AAE)

November 18, 2009

TO: Matthew Winegar, Development Services Director

FROM: Ken Ortega, Public Works Director

SUBJECT: City of Oxnard, 2010 to 2030 Projections of Water Supply and Demand

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This memorandum is a summary of projections for City water supplies and demands and how they were developed for the 2030 General Plan. Water supply assessments evaluate the water supplier's (the City) total, reasonably projected water supplies available during normal, single dry and multiple dry water years to the year 2030 and compare this to anticipated water demands for the same period. Because these evaluations consider all existing and anticipated supplies and demands through 2030, they are a planning-level overview of City water resources.

1.0 Water Supply Sources

The City's current water supply consists of: (1) United Water Conservation District (UWCD) pumped groundwater delivered to the City through the Oxnard – Hueneme Pipeline, (2) local groundwater pumped from City wells, and (3) imported surface water from the Calleguas Municipal Water District (CMWD). The City desalts a portion of its local groundwater supplies at its Blending Station No. 1 Desalter and blends these three sources to achieve an appropriate balance between water quality, quantity, and cost. Historically, the City's overall water supplies include an equal blend of low mineral content (softer) water (imported water and desalted groundwater), with the higher total dissolved solid (harder) content local groundwater. The detailed characteristics of each of these sources is described in the following paragraphs and summarized in Table 1.

1.1 UWCD and City Groundwater

Groundwater purchased from UWCD has historically made up approximately 25% of the City's water supply and the groundwater pumped from City wells another 25%. However, with the recent addition of the Blending Station No. 1 Desalter, the City intends to rely increasingly on local groundwater while fixing or reducing its imported water purchases. The City is capable of making this transition without compromise to its overall water quality because it can now desalt a portion of its local groundwater supplies. Local groundwater is generally pumped from the Oxnard Plain Groundwater Basin. A description of the local groundwater aquifers is provided in the City's 2005 Urban Water Management Plan (UWMP).

1.1.1 Fox Canyon Groundwater Management Agency

The Fox Canyon Groundwater Management Agency (GMA) has jurisdiction over groundwater pumping for all of the land which overlies the Fox Canyon Aquifer. This encompasses approximately 185 square miles and includes the Oxnard Plain Forebay and the Oxnard Plain Pressure Basins underlying most of the City. This region is not subject to a formal, judicially enforced adjudication. But the regulatory oversight of the GMA provides the functional equivalent water management controls which are normally associated with adjudicated basins.

The GMA monitors and controls pumping within the GMA boundaries. As a method of reducing overall demands on local groundwater supplies, the GMA has implemented a staged "cutback" policy, through which it has reduced M&I allocation in increments of 5%, over a period of 25 years. As of July 1, 2009, municipal and industrial (M&I) pumpers have had a total of 20% cutback in their historical allocations. A final 5% cutback (for a total of 25%) is likely to be implemented on January 1, 2010. The GMA does not prohibit pumping beyond the M&I allocations, however extractions beyond the pumping allocations are subject to a surcharge.

The GMA also allows pumpers to carryover unused allocation from year-to-year; that is, if a pumper utilizes less than its pumping allocation, it accrues conservation credits. Similarly, if "foreign water" (including recycled water) is used in-lieu of groundwater pumping and/or recharged into the local aquifers, additional credits (either conservation or storage credits) may be accrued.

The City has undertaken both types of programs in the past, with GMA approval. The City has managed its total GMA allocation to establish and maintain approximately 30,000 acre feet (AF) in GMA groundwater conservation credits. The City uses its groundwater credit "bank" conjunctively with its imported supplies. During periods when imported supplies are restricted or when other operational considerations warrant it, the City relies more heavily on local groundwater, using a portion of its accumulated credits. During other periods, the City will reduce its groundwater use below its historical allocation to build back up its credit "bank."

The City obtains additional GMA allocations when agricultural land is converted to urban uses. In other words, the GMA allocates 2 acre-feet per acre per year of new allocation to the City when the City takes over water service obligation to lands that convert from agricultural use to M&I uses. The 2 acre-feet per acre, per year allocation is treated as "historical allocation" and is subject to the GMA regulatory cutbacks described above. Therefore, as of January 2010, the actual allocation the City receives in an agricultural to urban land use conversion is 1.5 acre-feet per acre per year.

Finally, the City receives a GMA baseline allocation for land which transitioned to urban use, but which had no prior water use history prior to the conversion. The baseline allocation is assigned at 1 acre-foot per acre per year (GMA Ordinance 8.1 Section 5.6.1.1). Baseline allocation is not subject to GMA regulatory cutbacks.

The City has two existing allocation pools – one (a suballocation) held in trust through UWCD and the other is assigned directly to the City's own wells. Each of these allocations is discussed below.

1.1.2 Groundwater – City Wells

In 2005 the GMA passed Ordinance No. 8.1, also known as the "Ordinance Code." The main goal of the ordinance is to bring the basin to safe yield by 2010. The result of the Ordinance Code was that by year 2006 the City had the following allocations:

- 822.468 acre-feet per year (AFY) of GMA baseline allocation
- 8,415.984 AFY of historical allocation (after 15% reduction)
- 1,487.798 AFY of transferred allocation (after 15% reduction)

As of December 31, 2006 total City GMA groundwater allocation was 10,726.25 AFY.

Since 2006 there have been several events that have impacted local groundwater. Lower than average precipitation over the last few years, efforts to protect endangered species on the Santa Clara River, intensification of water use by agricultural pumpers, and difficulty with recharge at some groundwater basins have strained local groundwater resources. Both agricultural and municipal groundwater pumpers have implemented significant conservation measures and the GMA continues to refine its regulatory practices to maintain the long-term integrity of local groundwater resources.

As previously described, in 2009 historical allocations have been reduced by a cumulative 20%, and another 5% reduction is scheduled to go into effect in January 2010. For the purposes of water supply planning, it is assumed that the City's baseline allocation will remain at 822.468 AFY, but the historical and transferred allocation will be reduced. Total anticipated City groundwater allocation is assumed to be 8,380 AFY, with no additional future cutbacks.

A projection of water supply from City groundwater wells is provided in Table 1.

1.1.3 Groundwater – United Water Conservation District

UWCD currently provides a portion of the City's groundwater supply through its El Rio Wellfield and Oxnard-Hueneme (O-H) Pipeline System. This arrangement has been in operation since 1954, with the current contractual commitment formalized in the 1996 Water Supply Agreement for Delivery of Water through the Oxnard/Hueneme Pipeline. UWCD holds a pumping suballocation for all users (Contractors) of the O-H Pipeline, which includes the City, the Port Hueneme Water Agency (PHWA), and a number of small mutual water companies.

UWCD diverts Santa Clara River water at the Vern Freeman Diversion Dam southeast of Saticoy, provides some of the diverted water to agricultural irrigators on the Oxnard Plain, and delivers the rest to the Saticoy and El Rio Spreading Grounds. Water percolated in these spreading basins recharges the Oxnard Plain Forebay Basin. The UWCD El Rio Wellfield is optimally located to pump groundwater from the easily recharged Oxnard Plain Forebay Basin.

The City's groundwater suballocation of UWCD groundwater was historically 9,070 AFY, but this was cutback to 7,709 AFY in 2006 as a result of Ordinance No. 8.1. The final GMA cutback scheduled for January 2010 will reduce the City's suballocation from UWCD to 6,800 AFY.

UWCD also holds conservation credits accrued by the O-H contractors, including the City. Currently the City has approximately 7,000 AF of stored credits with UWCD (personal communication, Curtis Hopkins, August 2009).

Because the reductions in allocation are designed to bring the groundwater basins within safe yield, the City's groundwater suballocations are considered to be a reliable future water source.

A projection of water supply from UWCD is provided in Table 1.

1.1.4 Calleguas Municipal Water District (Imported)

The City annexed to CMWD in February of 1961. CMWD is a member agency of the Metropolitan Water District of Southern California (MWD) from which it purchases imported water through the State Water Project (SWP) from Northern California. CMWD receives treated water from MWD via the MWD West Valley Feeder and either stores the treated water in Lake Bard or the Las Posas Basin for later delivery or feeds the water directly to the Springville Reservoir near Camarillo. The City receives water from the Springville Reservoir through the City's Oxnard and Del Norte Conduits that feed the City's five (5) water blending stations

The imported water purchased from CMWD has historically comprised approximately 50% of the City's total water supply. Lower than average precipitation over the last several years, conveyance and storage deficiencies in the SWP system, and judicial decisions regarding endangered species in the Sacramento-San Joaquin Delta area have led to reduced SWP imported water deliveries. These reduced SWP deliveries led MWD, in mid-2009, to reduce water deliveries to its member agencies, including CMWD, and consequently retail water purveyors including the City of Oxnard. As the City of Oxnard and PHWA share the same CMWD turnout, the two agencies must significantly reduce their usage of imported water during the Fiscal Year 2009-2010 period, or face significant penalties by mid-2010. In establishing the reduced allocation of 11,385 AFY for the Oxnard Region, MWD considered the two agencies' actual imported water usage during a baseline period between 2004 and 2006, considered the agencies' ability to produce local water supplies, and calculated City supply at 11,385 AFY. This reduction in supply is expected to remain in place until the constraints on MWD's supplies are relieved. The City is in negotiations with MWD to adjust upward this allocation to better reflect the typical imported water demand for the City.

1.1.5 Recycled Water

Currently, the City does not supply recycled water; however, this source is a component of the City's future water supplies.

The Oxnard Wastewater Treatment Plant (OWTP) currently produces approximately 22 million gallons per day (mgd) of secondary treated wastewater and discharges the effluent to the Pacific Ocean through an ocean outfall. In an effort to identify a project that could take advantage of the water reclamation potential from the OWTP, the City completed a Water Reclamation Master Plan in 1993. In response to recommendations included in the 1997 progress report titled "Oxnard Water Reclamation Project Initial Implementation Elements of the Water Reclamation Master Plan," and with input from CMWD, UWCD, and GMA, the City developed a water recycling program – the Groundwater Recovery Enhancement and Treatment (GREAT) Program.

In 2002, the City Council formally directed City staff to begin implementation of the GREAT Program, as further documented in the "GREAT Program Advanced Planning Study" (Kennedy/Jenks, 2002). Recycled water represents a new water supply that can be developed locally, reducing future reliance on imported water deliveries from northern California.

Since 2002, the City has certified a final environmental impact report and environmental impact statement for the GREAT Program, fully approved funding for the Phase 1 portion of the Program, along with acceptance of significant federal and state grants in support of the GREAT Program elements. The Blending Station No. 1 Desalter is the first completed major element of the GREAT Program.

Construction of the next major element of the GREAT Program -- the Advanced Water Purification Facility (AWPF) -- is scheduled to begin in December 2009. The AWPF, will treat secondary-treated wastewater from the OWTP using microfiltration, reverse osmosis and advanced oxidation, to produce purified recycled water. This highly treated, recycled water will be used for landscape irrigation, industrial processes, agricultural irrigation and future groundwater recharge.

Construction bidding for the AWPF began October 9, 2009 and will close December 2, 2009. The City Council is scheduled to issue tax exempt revenue bonds in late 2009 or early 2010 to fund a portion of the Phase I recycled water project. As noted, the City expects to start construction of the AWPF Phase I before the end of 2009. Requirements from a $20,000,000 Department of Interior, US Bureau of Reclamation grant received for the project require that the AWPF be completed and producing recycled water by September 30, 2011.

The AWPF is designed so that its capacity can be increased at relatively nominal incremental cost. In other words, the major facilities will be sized so that additional treatment capacity can be installed in modular components. Thus, the Phase 2 GREAT Program can be implemented much more quickly, at lower incremental costs, and with minor environmental review, in comparison to the Phase 1 element of the GREAT Program. The City intends to implement subsequent expansion(s) of the AWPF based on its then existing water supply and demand projections as they develop over the coming years. Subsequent phases of the AWPF will increase recycled water production from 6.25 mgd to as much as 26 mgd.

The City Council has also fully approved, and the City is in the final design of, the Recycled Water Backbone Pipeline Phase I. This pipeline and distribution project will deliver recycled water to customers along the Hueneme Road and Ventura Road corridors within the City, substituting recycled water for use of potable water where appropriate. The City expects to complete design work within the next few months and to start construction in early 2010. To meet the terms of the US Bureau of Reclamation grant, the Recycled Water Backbone Pipeline must also be completed by September 30, 2011.

Additional details on the City's proposed recycled water system are described in the City's Recycled Water Masterplan Phase I.

For the purposes of water supply projections it is assumed that the GREAT AWPF Phase 1 will produce 6.25 mgd (7,000 AFY net production) by year 2012 (personal communication, Thien Ng, September 2009). It is anticipated that recycled water infrastructure will serve 2,450 AFY of M&I demands by year 2012; approximately 2,700 AFY of recycled water supply would be delivered to City M&I by year 2013; 3,150 AFY by 2016; and 5,050 AFY by year 2020 (Recycled Water Master Plan 2009). Recycled water produced in excess of M&I recycled water demands will be used for irrigation of agricultural lands or groundwater recharge, in exchange for GMA groundwater credits.

The AWPF is conveniently located in close proximity to agricultural lands which could be easily served with recycled water. The infrastructure necessary to support groundwater recharge will also be located in the area nearby the AWPF and is expected to be in place by 2015.

The initial Phase 1 construction of the AWPF includes the completion of the main facility and infrastructure required for the future expansion of the facility's capacity. Additional treatment trains, or modules, can be added as needed, with significantly less comparative investment, to address future changes in water supply. The AWPF Phase 2A could be built as early as year 2015 and would supply an additional 7,000 AFY. AWPF Phase 2B is estimated to be complete by 2020, producing an additional 7,000 AFY. Dates for these AWPF expansions may be modified as water supply conditions change or circumstances require. AWPF Phase 2A and 2B may provide recycled water to M&I, agriculture, and groundwater recharge projects. Funding for AWPF Phase 2A and 2B will primarily be generated from fees paid by projects that increase water demands beyond the Phase I capacity of the GREAT Program. Future expansions of the AWPF, up to 25 mgd, will be undertaken by the City as needed.

A projection of water supply from the GREAT Program Phases 1 and 2 is provided in Table 1.

1.1.6 Other Projected City Water Supplies

The City has identified other potential water supplies in addition to those described above:

- Ferro Property Program. UWCD has approved, and is in the process of completing, the purchase of certain property located in the Oxnard Plain Forebay, which UWCD will convert into additional spreading basins. UWCD has approved a transfer agreement with the City through which the City will access additional local groundwater supplies. The City Council will consider this transfer agreement in December 2009. Through this program, the City will obtain 11,000 AF of groundwater credits. The City plans to use these transferred credits within the period 2010-2011. This program also provides the City with an additional access to 1,000 acre-feet per year of groundwater, through 2019 (a total of an additional 8,000 acre-feet) (personal communication, Tony Emmert, September 2009). The groundwater obtained through this program will be delivered through City wells and the O-H pipeline.

- Transferred Allocations. As described in section 1.1, it is estimated that the City will acquire 1.5 acre-feet per acre per year for agricultural lands that convert to M&I uses. The City has identified several areas that are in agriculture that are anticipated to undergo urban development including the Teal Club Specific Plan (SP) area, Sakioka Farms SP area, Camino Real Business Park, Jones Ranch SP, Ormond Beach North SP, and Ormond Beach South SP. Based on the potential conversion area and timing of development the City Planning Division has developed projections of transferred allocations. Water supply projections assume transfers of allocation of 525 AF per year from the Teal Club SP; 219 AF per year from the Sakioka Farms SP; 69 AF per year from the Camino Real SP; 145 AF per year from the Ormond Beach North SP; and 98 AF per year from the Jones Ranch SP by year 2015. This projection also assumes the transfer of an additional 260 AF per year from the Sakioka Farms SP; an additional 150 AF per year from the Jones Ranch SP; an additional 338 AF per year from the North Ormond Beach SP; and 231 AF per year from the Ormond Beach South SP by year 2020. This projection also assumes the transfer of an additional 332 AF per year from the Ormond Beach South SP and an additional 148 AF per year from the Sakioka Farms SP by year 2030.

- Transfer of 700 AF of GMA groundwater credits from PHWA to the City as part of the Three Party Water Supply Agreement, December 2002 (personal communication, Tony Emmert, August 2009, Calleguas Municipal Water District “Three Party Agreement” dated December 10, 2002 and “Purchase Order” dated January 1, 2003).

TABLE 1
PROJECTED ANNUAL WATER SUPPLIES AND CREDITS

	2010	2015	2020	2025	2030
ANNUAL SUPPLIES (acre feet per year)					
Groundwater-City Wells [(a)]	8,380	8,380	8,380	8,380	8,380
Brine Water Loss [(b)]	(2,100)	(4,200)	(6,300)	(8,400)	(8,400)
UWCD Allocation [(c)]	6,800	6,800	6,800	6,800	6,800
CMWD Allocation [(d)]	11,840	11,840	11,840	11,840	11,840
M&I Supplemental Water [(e)]	5,000	3,000	1,000	1,000	1,000
GREAT Program Recycled Water Phase 1 M&I [(f)]	0	2,700	5,050	5,050	5,050
GREAT Program Recycled Water Phase 1 Agriculture Use [(f)]	0	4,300	1,950	1,950	1,950
GREAT Program Recycled Water Phase 2 [(g)]	0	7,000	14,000	14,000	14,000
Ferro Pit Program [(h)]	5,500	1,000	0	0	0
Transferred Allocations [(i)]	0	1,060	2,290	2,220	2,420
PHWA Program [(j)]	700	700	700	700	700
TOTAL ANNUAL SUPPLIES	**36,120**	**42,580**	**45,710**	**43,540**	**43,740**
GROUNDWATER BANKED CREDITS					
Fox Canyon GMA credits (k)	30,000	AF			
UWCD credits (k)	7,000	AF			
GREAT Program credits at 2,500 AFY minimum X 20 years (l)	50,000	AF			
SUBTOTAL	**87,000**	**AF**			

Notes: Values are rounded to the nearest 10 acre-feet.

a) Projection includes the existing cutbacks (Fox Canyon Groundwater Management Agency-GMA, up to 25 %) and no anticipated future cutbacks in City's allocation. Source: City Water Resources (personal communication, Curtis Hopkins, August 2009).

b) Brine Water Loss is the amount of brine reject water (approximately 20 % loss) associated with the City's potable water Desalters at Blending Stations No. 1 (BS1) (currently operating at 7.5 mgd product water capacity - 8,400 AFY) and future BS3. BS3 Phase 1 anticipated to be operating by 2013 (7.5 mgd product water capacity) and BS1 Phase 2 (15 mgd product water capacity) projected to be operating by 2017 (according to the City's Fiscal Year 2008-2009 Capital Improvement Plan). BS3 Phase 2 (15 mgd product water capacity) anticipated to be operating by 2021 (personal communication with City Water Division, Tony Emmert, August 2009). However, these dates may be modified as conditions change.

c) This assumes the most conservative availability of City's allocation from UWCD which includes a total of 6,800 AFY. Also assumes that the GMA implements the full 25% cutback by 2010; and no anticipated future GMA cutbacks. The City had approximately 7,000 AF of credits banked with UWCD (personal communication, Curtis Hopkins, August 2009).

d) In establishing the reduced allocation of 11,385 AFY for the Oxnard Region, MWD considered the two agencies' actual imported water usage during a baseline period between 2004 and 2006, considered the agencies' ability to produce local water supplies, and calculated City supply at 11,385 However, the City's entitlement also includes sub allocations for P&G (2,800 AFY) and PHWA (3,262.5 AFY). The City is free to use any unused P&G and CMWD sub allocations. Program details provided by City Water Resources (2005 UWMP; personal communication, Tony Emmert, September 2009).

e) Through the M&I Supplemental Water Program, the City has received a total of 15,886.7 AF between the years 2005-2008 – approximately 4,000 AFY. However, UWCD may temporarily reduce or suspend deliveries of M&I Supplemental Water when Forebay groundwater levels drop below a certain threshold. For example, UWCD has tentatively suspended deliveries of M&I Supplemental water given the current conditions in the Forebay as of late 2009. Even though deliveries are suspended, M&I Supplemental water credits continue to accumulate. Once the suspended deliveries are reinitiated, it is expected that the accumulated credits will be made available in full in subsequent years. Based on current information, the City anticipates 5,000 AF of M&I Supplemental Water will be available in 2010 and 0 AF in year 2011. As a conservative assumption, the City assumes that on average only 3,000 AFY of M&I Supplemental water credits will be available between the years 2012-2015. As the Camrosa Water District has a contractual first right of refusal of the Conejo Creek Diversion Project water, and has expressed plans to utilize most of this water within its district, the M&I Supplemental Water credits available will reduce to 1,000 AFY as the Camrosa non-potable water system infrastructure continues to develop. Based on the expected future expansion phases of the Camrosa system, this is projected to occur after year 2015.

f) GREAT AWPF Phase 1 (anticipated startup in 2010-2012) would produce a maximum of 6.25 mgd (7,000 AFY net production) (Source: UWMP, 2005; personal communication, Thien Ng, September 2009). Combined uses of recycled water from AWPF Phase 1 (M&I and agriculture) does not exceed 7,000 AFY from 2012-2030. City anticipates that recycled water infrastructure will serve 2,450 AFY M&I demands by year 2012; approximately 2,700 AFY of recycled water supply would be delivered to City M&I uses by 2013; 3,150 AFY by 2016; and 5,050 AFY by year 2020 (Recycled Water Master Plan 2009). City assumes water produced in excess of M&I recycled water demands will be used for agricultural uses and groundwater recharge. City assumes GMA will allow credits for 100% of recycled water used directly or for injection (groundwater recharge) (personal communication, Steve Bachman, August 2009). It is assumed infrastructure to allow groundwater recharge will be in place by year 2015.

g) This is a projected supply not previously utilized by the City. AWPF Phase 2A (anticipated 2015; based on 2009 Avoided Cost Model) would produce a maximum of an additional 7,000 AFY (net production). AWPF Phase 2B is anticipated to be operating by 2020 and produce a maximum of an additional 7,000 AFY (net production). Dates for these AWPF expansions may be modified as conditions change. AWPF Phase 2A and 2B may provide recycled water to M&I, agriculture, injection barrier, and groundwater recharge projects.

h) This is a projected supply not previously utilized by the City. Includes one-time transfer of 11,000 AF of groundwater credits to the City. City plans to use these transferred credits within the period 2010-2011. City will also obtain 1,000 AFY of credits from 2012-2019. Program details provided by City Water Resources (personal communication, Tony Emmert, September, 2009).

i) For agricultural property conversion - assume 1.5 acre-feet per acre per year. The credits depicted here are those used to meet demand and are not representative of the City's cumulative credit balance with the GMA. Transferred allocation values developed by City Planning Department (personal communication, Chris Williamson October 2009). Assumes transfers of 525 AF Teal Club SP; 219 AF Sakioka Farms SP; 69 AF Camino Real SP; 145 AF from the Ormond Beach North SP; and 98 AF Jones Ranch SP by year 2015. Assumes transfer of additional 260 AF Sakioka Farms SP; and additional 150 AF Jones Ranch SP; an additional 338 AF from the North Ormond Beach SP; and 231 AF Ormond Beach South SP by year 2020. Assumes additional 332 AF from Ormond Beach South SP and an additional 148 AF Sakioka Farms SP by year 2030.

j) Transfer of 700 AF of GMA groundwater Credits from PHWA to the City as part of the Three Party Water Supply Agreement, December 2002. Program details provided by City Water Resources (personal communication, Tony Emmert, August 2009).

k) The Credits depicted here are those used to meet demand and are not representative of the City's cumulative credit balance. Deliveries from the groundwater credits are shown only when there is insufficient supply to meet demand. At the end of 2008, the City had approximately 30,000 AF of groundwater credits with the GMA and 7,000 AF with UWCD. The groundwater credits are intended to be used to offset any reduced availability of imported water, or to mitigate unforeseen cutbacks, catastrophic events, facility failure, etc. The City can use these credits without GMA penalty. Program details provided by City Water Resources, personal communication, Tony Emmert, November 2009; personal communication, Curtis Hopkins, September 2009.

l) It is assumed future GREAT Program deliveries will be credited a minimum of 2,500 AFY starting in year 2015.

2.0 Water Demand Projections

A detailed water demand model was developed as part of the 2005 UWMP and includes: existing demand, demand from proposed buildout of the 2020 General Plan, unaccounted for water loss, potential increase in per-unit demand, and a contingency. The model also accounts for reductions in demand due to the increased use of recycled water and water conservation. This model has been updated for buildout of the proposed 2030 General Plan Alternative B and to reflect recent changes in water supply and consumption, as accurately and as reasonably possible.

Components of demand are shown in Table 2 and discussed below:

- 2009 Baseline Demand. This is an estimate of total demand for the calendar year 2009. As a conservative basis, water demand by existing customers is anticipated to remain fairly stable through 2030. In all likelihood current customers will continue to implement best management practices, which should reduce overall per capita water consumption.

- Non-Revenue Water (i.e., Water Loss). Water losses come from authorized, unmetered sources such as fire fighting and main flushing, or unauthorized sources such as leakage, illegal connections, and inaccurate flow meters. Non-Revenue water is estimated to be about 6% of water demand.

- Ocean View System (formerly Ocean View Municipal Water District [OVMWD]) primarily serves agricultural customers along East Hueneme Road. As part of a Local Agency Formation Commission action, the OVMWD district dissolved and the existing customers were added to the City of Oxnard water service area as the Ocean View System (OVS). Existing users in the OVS service area along East Hueneme Road receive water from the City through the UWCD O-H Pipeline System and the OVS system. Parcels within the former OVMWD service area also obtain water from private wells and from the UWCD PTP System. OVS customers use approximately 1,337 AFY of UWCD O-H water delivered via the City, according to UWCD data (average calculated for fiscal years 1999-2008).

- PHWA purchases water from the City per the Three Party Agreement which specifies a PHWA suballocation of CMWD water of 3,262.5 AFY. PHWA's mean annual purchase from the City was 1,911 AF for period 1999-2008 (personal communication, Steve Hickox, September 2009; personal communication, David Birch, September 2009). The City of Port Hueneme, the largest PHWA member agency, has implemented a meter retrofit program which should substantially reduce water demand within the City. PHWA is also implementing other water management programs which may decrease its per capita water demands.

- Proctor & Gamble is a private user within the City of Oxnard which receives unblended imported water from the City through a special water service agreement. Current annual water demand for Proctor & Gamble is approximately 2,300 AFY for the period 2001-2008. Proctor & Gamble estimated future water demands are approximately 2,800 AFY, assumed to occur after year 2015. Source: personal communication, Dakota Corey, August 2009. Proctor & Gamble has also indicated its intent to implement certain water reuse and conservation practices, and consider the use of recycled water to offset some of its demands. For the purpose of this analysis, the City assumes Proctor & Gamble's overall water use will increase from 2,300 AFY to 2,800 AFY after 2015.

- Projected New Demand Increase for Development Projects Under Review. Annual increase in water demand has been based on development applications received and under review and/or permitted. New 2010 to 2030 water demand is based on the buildout of the 2030 General Plan, Alternative B. Year to year projected new development demand based on the July 2009 City Project List, 2030 General Plan Background Report (2006), Ventura Council of Governments Decapolis Report, and UCSB Forecast.

- Projected New Demand Increase of Unknown Projects. It is assumed that for any given timeframe, water demand could be 10% higher due to approved amendments to the 2030 General Plan.

- Demand Management Programs. In February 2008, Governor Schwarzenegger called for a 20 percent reduction in per capita water use statewide by 2020. The State Water Resources Control Board has released a draft statewide implementation plan for achieving this goal (Draft 20x2020 Water Conservation Plan, April 2009) which establishes regional baseline and target per capita water use values by State hydrologic region. The 2020 targeted daily per capita water use value established for the South Coast hydrologic region is 149 gallons per capita per day. The draft plan proposes a series of enforcement mechanisms and financial incentives to facilitate water conservation at the local level. The City is preparing a Conservation Master Plan, due by the end of 2009, which will identify potential demand management measures and potential demand reductions which will help the City meet the gallons per capita per day goals of the 20x2020 plan. The City anticipates a reduction in City-wide water demands of approximately 500 AFY for period 2010-2012, ramping up to 5% of demand from 2016-2020, and 10% reduction for period 2021-2030. Demand reductions recommended by City staff (personal communication, Tony Emmert and Dakota Corey, August-September 2009).

Table 2 shows the estimated annual water demand projections through the year 2030. On a day-to-day basis there will be variations, with higher demands typically during the summer and lower demands during the winter.

The water demand projections in Table 2 are conservative and likely overestimate demand. General Plans rarely reach buildout and are rarely amended so often as to produce a gain of 10 percent. Nevertheless, because of reduced reliability of water imports from the SWP the Oxnard City Council, at its January 15, 2008 and October 19, 2009 meetings, directed staff to require that all new projects defined as discretionary and not exempt from CEQA be water demand neutral to the City's water system. Project proponents can contribute water rights, water supplies, or financial or physical offsets to achieve water neutrality. Typical options open to project proponents include transfers of GMA groundwater allocations to the City through agricultural conversion, participation in expansions of the City's GREAT Program recycled water system through physical or financial contributions, and participation in water conservation projects that produce measurable sustainable water savings. Several projects have already complied with this requirement and several others are currently in negotiations with the City. Projects that are ministerial and/or exempt from CEQA, such as single family residential projects or business tenant improvements, are not subject to the water demand neutral requirement.

At the October 27, 2009 meeting the City Council directed that the following components be incorporated into a written City water demand neutral policy:

- Proposed projects should either contribute new water supplies or the financial or physical equivalent to offset the estimated project demand.

- The City will develop a menu of mitigation options that may include financial contribution toward the GREAT Program's recycled water facilities, financial contribution toward a City controlled water conservation project or program that would generate verifiable long-term water savings, or implementation of a developer initiated water conservation project or program that would generate verifiable long-term water savings.

TABLE 2
ANNUAL WATER DEMAND PROJECTIONS (AFY)

WATER DEMANDS	2010	2015	2020	2025	2030
BASELINE DEMAND					
2009 Revenue Metered Demand [a]	28,900	28,900	28,900	28,900	28,900
2009 Non-Revenue Water [b]	2,150	2,150	2,150	2,150	2,150
OVS (formerly OVMWD) [c]	1,340	1,340	1,340	1,340	1,340
PHWA [d]	1,910	1,910	1,910	1,910	1,910
Proctor and Gamble [e]	2,300	2,800	2,800	2,800	2,800
SUBTOTAL	36,600	37,100	37,100	37,100	37,100
POTENTIAL DEMAND					
Projected Buildout of the 2030 General Plan [f]	550	3,040	5,440	6,600	7,750
10% Contingency for General Plan Amendments [g]	50	300	550	650	750
SUBTOTAL [h]	600	3,340	5,990	7,250	8,500
DEMAND REDUCTION PROGRAMS					
Demand Management Programs Reduction [i]	(500)	(1,620)	(2,150)	(4,440)	(4,560)
SUBTOTAL	(500)	(1,620)	(2,150)	(4,440)	(4,560)
TOTAL DEMAND	**36,700**	**38,820**	**40,940**	**39,910**	**41,040**

Source: City Planning, 2009.
Notes: Values are rounded to the nearest 10 AF.

a) Baseline water demand for fiscal year 2009. Water demand by existing customers is anticipated to remain fairly stable through 2030. Baseline demand excludes annual demands for Proctor & Gamble, agricultural water for the OVS, and annual demands for PHWA. These three demands are summarized separately in this table. Data provided by City Planning Department (personal communication, Chris Williamson, August 2009) and City Water Resources (personal communication, Dakota Corey and Tony Emmert, September 2009).

b) Non-revenue water = unaccounted-for water. Estimated at 6% of total demand (approximately 35,600 AFY x 6%). Source: personal communication, Dakota Corey, September 2009.

c) Based on available billing data, OVS customers have used approximately 1,337 AFY of UWCD O-H water delivered via the City.

d) PHWA purchases water from the City per the Three Party Agreement; Agreement specifies PHWA suballocation of CMWD water of 3,262.5 AFY. PHWA mean annual purchases from the City was 1,911 AF for period 1999-2008 (source: personal communication, Steve Hickox, September 2009; personal communication, David Birch, September 2009). PHWA will begin water demand management programs in 2009 which may decrease water demands.

e) Current annual water demand for Proctor & Gamble is approximately 2,300 AFY for the period 2001-2008. Proctor and Gamble estimated future water demands are approximately 2,800 AFY, assumed to occur after year 2015. Source: personal communication, Dakota Corey, August 2009.

f) Annual increase in water demand based on development applications received for known projects. New water demands also include 2030 General Plan buildout, infill, redevelopment, and densification. Values provided by City Planning Department (personal communication, Chris Williamson and Kathleen Mallory, August 2009) and based on the following sources: July 2009 City Project List, CA Department of Finance, 2030 General Plan Background Report (2006), Ventura Council of Governments data, and UCSB Forecast.

g) Annual increase in water demand for unknown projects. Can be as high as 10% of new demand for known projects. Source: personal communication, Ken Ortega, September 2009.

h) Cumulative total new demand based on the annual values for known and unknown projects.

i) City anticipates the reduction in City-wide water demands via implementing several demand management programs. Estimated reduction is approximately 500 AFY for period 2010-2012, 2% of demand in 2013, 3% of demand in 2014, 4% of demand in 2015, 5% of demand from 2016-2020, and 10 % reduction for period 2021-2030.

3.0 Water Supply and Demand Comparison

Tables 3 through 7 provide a comparison of the City's annual water supply and demands for normal, single dry, and multiple dry water years. The normal year scenario assumes the same supplies and demands presented in Tables 1 and 2. As the City's supplies in Table 1 are firm, no change in available supply is anticipated for the City in a single dry year. Demands are also assumed to remain the same for a single dry year. For a multiple dry year scenario, it was assumed that a 5% reduction in available supplies will occur between the years 2010 and 2015.

Tables 3 and 4 show that, under normal conditions for the period 2010 to 2014, the City will need to rely on a portion (up to 42%) of its bank of accumulated groundwater credits to meet anticipated demand. Once the GREAT Program recycled water system begins production and delivery of recycled water and consequently offsets potable demand or earns groundwater credits, the City will be able to replenish its groundwater credit bank. Both supply and demand have been conservatively estimated as supply estimates reflect the maximum anticipated cutbacks and demand estimates are also worst-case. **Because the City requires that new development projects be water neutral, this requirement and the current economic conditions would tend to delay or cancel some anticipated development in the near term. As a result, water demand estimates between 2010 and 2014 are likely overstated and the draw on groundwater credits will be less than projected**.

TABLE 3
PROJECTED 2030 GENERAL PLAN BUILDOUT
WATER SUPPLY AND DEMAND COMPARISON:
NORMAL YEAR SCENARIO

	2010	2015	2020	2025	2030
Supply Totals	36,110	42,570	45,930	44,090	44,300
Demand Totals	36,700	38,800	40,920	39,920	41,080
Net Difference Supply vs. Demand	(590)	3,770	5,010	4,170	3,220
Groundwater Debit/Credit	(590)	0	0	0	0
Net Difference to Annual Supply	-2%	9%	11%	9%	7%
Net Difference to Annual Demand	-2%	10%	12%	10%	8%
Draw on Credit Bank	2%	0%	0%	0%	0%
Supply vs. Demand with Credits	0	3,770	5,010	4,170	3,220

Note: Values are rounded to the nearest 10 AF.

TABLE 4
PROJECTED 2030 GENERAL PLAN BUILDOUT
WATER SUPPLY AND DEMAND COMPARISON:
NORMAL YEAR 2010 TO 2014 ANNUAL

	2010	2011	2012	2013	2014
Supply Totals	36,110	31,290	32,430	30,760	30,940
Demand Totals	36,700	37,240	37,780	38,540	38,680
Net Difference Supply vs. Demand	(590)	(5,950)	(5,350)	(7,780)	(7,740)
Groundwater Debit/Credit	(590)	(5,950)	(5,350)	(7,780)	(7,740)
Net Difference to Annual Supply	-2%	-19%	-16%	-25%	-25%
Net Difference to Annual Demand	-2%	-16%	-14%	-20%	-20%
Draw on Available Credit Bank	2%	16%	18%	30%	42%
Supply vs. Demand with Credits	0	0	0	0	0

Notes: Values are rounded to the nearest 10 AF.

As shown in Table 5, under a dry year scenario, like the normal year scenario, in year 2010, the City will also have to rely on a portion of its groundwater credits.

TABLE 5
PROJECTED 2030 GENERAL PLAN BUILDOUT
WATER SUPPLY AND DEMAND COMPARISON:
DRY YEAR SCENARIO

	2010	2015	2020	2025	2030
Supply Totals	36,110	42,570	45,930	44,090	44,300
Demand Totals	36,700	38,800	40,920	39,920	41,080
Net Difference Supply vs. Demand	(590)	3,770	5,010	4,170	3,220
Groundwater Debit/Credit	(590)	0	0	0	0
Net Difference to Annual Supply	-2%	9%	11%	9%	7%
Net Difference to Annual Demand	-2%	10%	12%	10%	8%
Draw on Credit Bank	2%	0%	0%	0%	0%
Supply vs. Demand with Credits	0	3,770	5,010	4,170	3,220

Note: Values are rounded to the nearest 10 AF.

Tables 6 and 7 provide a comparison of supply and demand assuming a multiple dry year scenario. Table 6 provides projections for years 2010, 2015, 2020, 2025, and 2030. Table 7 provides projections for years 2010 through 2014, the more critical years in terms of supply. Tables 6 and 7 show that, under multiple dry year conditions for the period 2010 to 2014, the City will need to rely on a portion (up to 86%) of its bank of accumulated groundwater credits to meet anticipated demand.

TABLE 6
PROJECTED 2030 GENERAL PLAN BUILDOUT
WATER SUPPLY AND DEMAND COMPARISON:
MULTIPLE DRY YEAR SCENARIO

	2010	2015	2020	2025	2030
Supply Totals	32,400	42,070	46,930	44,090	44,300
Demand Totals	36,700	38,800	40,920	39,920	41,080
Net Difference Supply vs. Demand	(4,300)	3,270	6,010	4,170	3,220
Groundwater Debit/Credit	4300	0	0	0	0
Net Difference to Annual Supply	-13%	8%	13%	9%	7%
Net Difference to Annual Demand	-12%	8%	15%	10%	8%
Draw on Available Credit Bank	12%	0%	0%	0%	0%
Supply vs. Demand with Credits	0	3,270	6,010	4,170	3,220

Note: Values are rounded to the nearest 10 AF.

TABLE 7
PROJECTED 2030 GENERAL PLAN BUILDOUT
WATER SUPPLY AND DEMAND COMPARISON:
MULTIPLE DRY YEAR 2010 TO 2014 SCENARIO

	2010	2011	2012	2013	2014
Supply Totals	34,300	29,730	30,810	29,220	29,390
Demand Totals	36,700	37,240	37,780	38,540	38,680
Net Difference Supply vs. Demand	(2,400)	(7,510)	(6,970)	(9,320)	(9,290)
Groundwater Debit/Credit	2,400	7,510	6,970	9,320	9,290
Net Difference to Annual Supply	-7%	-25%	-23%	-32%	-32%
Net Difference to Annual Demand	-7%	-20%	-18%	-24%	-24%
Draw on Available Credit Bank	6%	22%	26%	46%	86%
Supply vs. Demand with Credits	0	0	0	0	0

Notes: Values are rounded to the nearest 10 AF.

4.0 Summary and Findings

Tables 3 through 7 confirm the importance of increased water conservation and implementation of the GREAT Program in achieving a reliable water supply for buildout of the proposed 2030 General Plan Alternative B. During the period 2010 to 2014, the City may draw on a portion of its groundwater credit bank of approximately 37,000 AF as an interim supply until the GREAT Program Phase I is completed. Further, under dry and multiple dry year conditions, it is possible that during the years 2010 to 2014, the cumulative draw on the groundwater credits could nearly exhaust the currently available credits. Note that in Table 3 (Normal Year), Table 5 (Dry Year scenario), and Table 6 (Multiple Dry Year scenario) there is surplus annual water supply after year 2015, which will be used to restore the groundwater credit bank. As noted in this summary, and the City 2005 Urban Water Management Plan, the City has available additional tools to impose response measures to further reduce customer demand to mitigate the impacts of prolonged drought or water shortage conditions.

Appendix L
Draft Development Agreement

RECORDING REQUESTED BY AND
WHEN RECORDED MAIL TO:

City of Oxnard
305 West Third Street
Oxnard, California 93030
Attention: City Clerk

SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

DEVELOPMENT AGREEMENT

THIS DEVELOPMENT AGREEMENT ("Agreement") is made in Ventura County, California as of ______________, 2010 by and between the CITY OF OXNARD, a municipal corporation of the State of California (the "City") and SAKIOKA FARMS, a California general partnership and AMS CRAIG, LLC, a Delaware limited liability company (collectively, the "Developer"). The City or Developer may be referred to individually as a "Party," and collectively as the "Parties".

RECITALS

A. The City is authorized pursuant to Government Code sections 65864 through 65869.5 (the "Development Agreement Statute") and City Council Resolution No. 10,448 to enter into binding development agreements with persons or entities owning legal or equitable interests in real property located within the City.

B. Developer is the owner of that certain real property in the City of Oxnard, County of Ventura (the "County") more particularly described in Exhibit A attached hereto and incorporated herein by this reference (the "Property").

C. The City and Developer each desire to enter into this Agreement affecting the Property in conformance with the Development Agreement Statute in order to achieve the mutually beneficial development of the Property in accordance with this Agreement.

D. The development project which Developer seeks to develop on the Property may consist of business and research park uses, light industrial uses and related commercial service uses and multi-family residential uses (collectively, the "Project"), all in accordance with the Sakioka Farms Business Park Specific Plan previously adopted by the City Council of the City. In conjunction with the approval of the Specific Plan, the City Council certified an environmental impact report (the "EIR") for the Project on ______________.

E. The City and Developer each mutually desire to obtain the binding agreement of one another to permit and ensure that the Property is developed strictly in accordance with the provisions of this Agreement.

F. This Agreement will benefit Developer and the City by eliminating uncertainty in planning and providing for the orderly development of the Project. Specifically, this Agreement (1) eliminates uncertainty about the validity of exactions to be imposed by the City, (2) allows installation of necessary improvements that benefit the Project, the City and the region, (3) provides for public services and infrastructure appropriate to the development of the Property, (4) provides for alternative residential uses that include affordable housing and workforce housing within close proximity to the employment opportunities in the Project, (5) provides for the dedication of land and $3 Million for development of a Fire Station, (6) provides for the dedication of land for the ASR Site described in Paragraph 8.6, (7) provides for the dedication of land for the Rice/101 Interchange and the Del Norte/101 Interchange, (8) provides for the dedication of land for the extension of Gonzales Road, and (9) generally serves the public interest within the City and the surrounding region.

G. The Planning Commission of the City (the "Planning Commission") and City Council have each given notice of their intention to consider this Agreement, have each conducted public hearings thereon pursuant to the relevant provisions of the Government Code, and have each found that the provisions of this Agreement are consistent with the City of Oxnard 2030 General Plan for development within the City, City zoning ordinances, and the Specific Plan. The City Council has also specifically considered the impacts and benefits of the Project upon the welfare of the residents of the City and the surrounding region. The City Council has determined that this Agreement is beneficial to the residents of the City and is consistent with the present public health, safety and welfare needs of the residents of the City and the surrounding region.

H. On ______________, the Planning Commission held a duly noticed public hearing wherein the Planning Commission recommended approval of this Agreement.

NOW, THEREFORE, in consideration of the foregoing Recitals which are hereby incorporated into the operative provisions of this Agreement by this reference and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the City and Developer agree as follows:

1. <u>Definitions</u>.

1.1 "Affordable" shall be defined as set forth in Health and Safety Code section 50052.5 (for owner occupied units) and Health and Safety Code section 50053 (for rental units).

1.2 "Applicable Fees" shall mean those fees and fee programs uniformly applied to all development projects within the City that may be charged to Developer, the Property, or the Project with respect to the development of the Property, impacts related to the Project, the processing of applications, the issuance of permits, or any other matter related to the Property or the Project.

1.3 "Applicable Rules" means the rules, regulations and official policies of the City which were in force as of the Effective Date (as defined below), including, but not limited to, the General Plan (as defined below), the Specific Plan (as defined below), City zoning ordinances and other entitlements, development conditions and standards, public works standards, subdivision regulations, density, growth management, environmental considerations, grading requirements, and design criteria applicable to the Project.

1.4 "City Council" shall mean the City Council of the City.

1.5 "City Manager" shall mean the City Manager of the City.

1.6 "Discretionary Actions" and "Discretionary Approvals" means those actions and approvals which require the exercise of judgment, or imposition of a condition or obligation, by any officer, employee, review board, commission or department of the City. Discretionary Actions and Discretionary Approvals are distinguished from activities or approvals which merely require the City Manager or any officer, employee, review board, commission or department of the City to determine whether or not there has been compliance with applicable statutes, ordinances, regulations or conditions of approval.

1.7 "Dwelling Unit" shall mean a place in the Project that is legally available to be the permanent abode of a person or family including, but not limited to, a single-family dwelling, a single-family unit in a two-family unit, a single-family unit in a multi-family, townhome or mixed use development, a unit of a condominium project or a unit of a multi-family rental project.

1.8 "Effective Date" means the date on which the ordinance approving this Agreement becomes operative under Government Code section 36937.

1.9 "Existing Project Approvals" means the following environmental documents and land use entitlements and approvals for the development of the Project Area which Developer has applied for and the City has certified and/or approved:

(a) On ______________, 2010, pursuant to the California Environmental Quality Act and the State Guidelines, the Planning Commission of the City ("Planning Commission"), by Resolution No. _______, certified a final environmental impact report identified as EIR No. ____, State Clearing House No. _____________, for the ______________ Specific Plan ("Specific Plan") and this Development Agreement.

(b) On _______________, 2010, the Planning Commission by Resolution No. _____, recommended to the City Council of the City ("City Council"), adoption of the Specific Plan.

(c) On _______________, 2010, the City Council by Resolution No. ______, made findings of fact, and adopted a mitigation monitoring program and a statement of overriding considerations relating to the Specific Plan.

(d) On _______________, 2010, the City Council, by Ordinance No. ____, adopted the Specific Plan.

1.10 "Financing District" means a community facilities district formed pursuant to the Mello Roos Community Facilities Act of 1982 (Government Code section 53311 *et seq.*), an assessment district formed pursuant to the Landscaping and Lighting Act of 1972 (Streets and Highways Code section 22500 *et seq.*), or any other similar special district or assessment district existing pursuant to state law for purposes of financing the cost of public improvements, facilities or services within a distinct geographic area of the City.

1.11 "General Plan" means the City of Oxnard 2020 General Plan adopted Ocotber 7, 1990 or, if adopted prior to adoption of this agreement, the 2030 General Plan adopted ________________________, 2010 or 2011.

1.12 "Low Income Household" means persons and families whose gross incomes do not exceed eighty percent (80%) of the median income for the County. For purposes of this Agreement, the qualifying limits shall be those limits for the County, as set forth in Title 25, California Code of Regulations, section 6932, as that section may be amended, modified or recodified from time to time. If the California Code of Regulations is amended or modified during the term of this Agreement so that such regulations do not specify the area median income for the County, the City and Developer shall negotiate in good faith to determine an equivalent authoritative source which determines median income for the County.

1.13 "Ministerial Permits and Approvals" means the nondiscretionary permits, approvals, plans, inspections, certificates, documents and licenses required to be taken, issued or approved by the City in order for Developer to implement, develop and construct the Project, including without limitation, building permits, and other similar permits and approvals.

1.14 "Moderate Income Household" means persons and families whose gross incomes do not exceed one hundred twenty percent (120%) of the median income for the County. For purposes of this Agreement, the qualifying limits shall be those limits for the County, as set forth in Title 25, California Code of Regulations, section 6932, as that section may be amended, modified or recodified from time to time. If the California Code of Regulations is amended or modified during the term of this Agreement so that such regulations do not specify the area median income for the County, the City and Developer shall negotiate in good faith to determine an equivalent authoritative source which determines median income for the County.

1.15 "Periodic Review" shall have the meaning assigned to such term in Paragraph 11.1.

1.16 "Planning Commission" shall mean the Planning Commission of the City.

1.17 "Project" shall mean that development contemplated pursuant to the Specific Plan.

1.18 "Project Area" shall mean the ± 430 acres comprising the Property as depicted in the Specific Plan.

1.19 "Project Area Description" shall mean the following designations:

(a) "Light Industrial" designation will accommodate a range of general manufacturing and related service uses. In addition to traditional industrial uses, the area may develop industrial service centers; this concept recognizes that there may be a need for commercial services within industrial areas. The intent of providing commercial services is to meet the daily needs of employees within the industrial areas during their journey to and from work, while on breaks, and during lunch periods.

(b) "Business and Research Park" designation provides for a variety of business and employment opportunities such as professional, administrative, research and manufacturing uses along with limited commercial activities. This designation allows for a higher intensity of land use activities, relative to the overall Project Area.

(c) "Residential Use" designation is optional in designated Planning Areas and may be mixed with other uses to optimize opportunities to reduce vehicular trips. This concept will allow individuals to live near their place of employment and provide the City with an additional opportunity to achieve a better jobs-to-housing balance in the community.

1.20 "Residential Project" shall mean the residential development which may be developed by Developer or its successors and assignees pursuant to the Specific Plan.

1.21 "Specific Plan" shall mean the Sakioka Farms Business Park Specific Plan adopted by the City Council on ______________ which serves as the zoning of the Project Area and establishes the planning concept, design theme, development regulations and administrative procedures necessary to achieve an orderly and compatible development of the Project Area within designated "Planning Areas".

1.22 "Subsequent Applicable Rules" means the rules, regulations and official policies of the City, as they may be adopted and become operative after the Effective Date which, other than as provided for in this Agreement, would govern the General Plan, City zoning ordinances, Specific Plan and other entitlements, development conditions and standards, public works standards, subdivision regulations, density, growth management, environmental considerations, grading requirements and design criteria applicable to the Project and the Property.

1.23 "Workforce Housing" means housing for persons and families whose gross incomes do not exceed one hundred twenty percent (120%) of the median income for the County (such persons and families to be referred to herein as "Workforce Households"). For purposes of this Agreement, the qualifying limits shall be those limits for the County, as set forth in Title 25, California Code of Regulations, section 6932, as that section may be amended, modified or recodified from time to time. If the California Code of Regulations is amended or modified during the term of this Agreement so that such regulations do not specify the area median income for the County, the City and Developer shall negotiate in good faith to determine an equivalent authoritative source which determines median income for the County.

2. Term of Agreement. This Agreement shall become operative and commence upon the Effective Date and shall remain in effect for a term of thirty (30) years, unless the term is modified by mutual written consent of the City and Developer. Upon the expiration of the term, this Agreement shall be deemed terminated and have no further force and effect.

3. Vested Right to Develop the Project. The City hereby grants to Developer the vested right to develop the Project on the Property to the extent and in the manner provided in this Agreement, subject to the Applicable Rules. Any change in the Applicable Rules adopted or becoming effective after the Effective Date shall not be applicable to or binding upon the Project or the Property except as provided below. The City shall not require Developer to obtain any approvals or permits for the development of the Project other than those permits or approvals which are required by the Applicable Rules. This Agreement will bind the City to the terms and obligations specified in this Agreement and will limit, to the degree specified in this Agreement and under state law, the future exercise of the City's ability to regulate development of the Project. The City agrees that with respect to the Project it is bound to permit development of the Project in accordance with the Specific Plan subject to the Applicable Rules.

3.1 No Conflicting Enactments. Neither the City nor any agency of the City shall apply any additional conditions or restrictions, whether by specific reference to the development of the Project or as part of a general enactment of rules, regulations, ordinances or other measures, or as part of an initiative passed by the electorate and whether by action of the Planning Commission or the City Council, which would:

(a) Limit or control the rate, timing, phasing or sequencing of the development of any part of the Project which is inconsistent or in conflict with this Agreement;

(b) Limit or reduce the density, intensity or configuration of the Project development, or otherwise require any reduction in the FAR, height, number, size or square footage of lots, structures or buildings as adopted in the Specific Plan;

(c) Expand or increase Developer's obligations with respect to the provision of parking spaces, streets, roadways and/or any other public or private improvements, structures or dedications of land; or

(d) Limit the location or size of buildings, structures, grading or other improvements relating to the development of the Project in a manner which is inconsistent with or more restrictive than the Applicable Rules.

Future regulations may only be applied to the Project and Property if any of the following four conditions occur:

(i) After a duly noticed public hearing: (1) the City Council determines by substantial evidence that the failure to impose those future regulations would place residents of the City in a condition dangerous to their health or safety, which condition cannot be mitigated in a reasonable manner with respect to the development of the Property and Project except through imposition of such future regulations; and (2) such future regulations are applied consistently and evenly throughout the City.

(ii) In response to documented emergency situations, as properly declared by the President of the United States, the Governor of California, the Mayor of the City or the City Council, the City Council may adopt reasonable, temporary regulations affecting the Property, provided (1) the City Council determines by substantial evidence that the failure to impose those temporary regulations would place residents of the City in a condition dangerous to their health or safety; (2) such temporary regulations are applied consistently and evenly throughout the City; and (3) such temporary regulations are repealed as to the Property once the emergency situation has ended either officially or through a determination made jointly by the City and Developer that the emergency situation triggering the temporary regulations no longer requires the imposition of such regulations, which favorable determination the City may not unreasonably withhold.

(iii) The future regulations are mandated by a state or federal law enacted after the Effective Date, despite Developer's vested right to develop the Project provided by this Agreement.

(iv) The City implements, citywide, an adopted Sustainable Communities Strategy or Alternative Planning Strategy pursuant to a SB-375 program or programs that may be approved by the Southern California Association of Governments.

3.2 Moratorium or Legal Challenges. Developer and City intend that no moratorium or other limitation (whether relating to the rate, timing, phasing or sequencing of the development of all or any part of the Project and whether enacted by initiative or otherwise) affecting parcel or subdivision maps (whether tentative, vesting tentative or final), building permits, certificates of occupancy or other entitlements shall apply to the Project to the extent such moratorium or other limitation is inconsistent or conflicts with this Agreement. City agrees to cooperate with Developer in all reasonable manners in order to keep this Agreement in full force and effect. Notwithstanding the preceding sentence, in the event of any legal action instituted by a third party or other government entity or official challenging the validity of this Agreement, the City and Developer agree to cooperate in defending such action, with Developer to indemnify the City pursuant to Paragraph 19.12 of this Agreement. In the event of any litigation challenging the effectiveness of this Agreement or any portion thereof, this Agreement shall remain in full force and effect while such litigation, including any appellate review, is pending, unless a court of competent jurisdiction orders otherwise.

4. Development, Impact, Processing and Other Fees.

4.1 Applicable Fees. Any new fee or increase in any Applicable Fee shall only be applicable to the Project, the Property and/or Developer to the extent, and only to the extent, that any such new fee or increase in any Applicable Fee is applied consistently and proportionately throughout the City in accordance with Applicable Rules.

5. Credits for Master Planned Facilities.

5.1 Project Infrastructure. Developer shall construct the infrastructure improvements to the Project Area required by the Specific Plan and the mitigation measures under the EIR at Developer's expense, subject to the credits and reimbursement set forth in this Agreement.

5.2 Master Planned Facilities. In connection with the construction of the Project, Developer may be required to construct additional infrastructure improvements which exceed the legal nexus and rough proportionality test established by the United States Supreme Court in Nollan v. California Coastal Commission 483 U.S. 825 (1987) and Dolan v. City of

Tigard 512 U.S. 324 (1994) decisions whether by providing excess capacity within the City's infrastructure, by improving, extending or widening streets and intersections within and outside the Project boundaries, by remedying existing deficiencies by providing additional capacity for future development and by providing additional benefits to the City and/or adjacent property owners ("Master Planned Facilities"). The Master Planned Facilities consist of the improvements described in Exhibit B attached hereto. The City shall credit Developer for costs incurred by Developer in connection with the engineering and construction of the Master Planned Facilities as provided in this Paragraph 5, unless otherwise specified in Paragraph 8.

5.3 City Credit for Master Planned Traffic Circulation Facilities. The City shall credit and/or reimburse Developer for costs incurred by Developer in connection with the engineering and construction of the Master Planned Facilities (the "Developer's Costs") pursuant to Resolution No. 10,272 of the City of Oxnard ("A Resolution of the City of Oxnard Establishing a Policy Concerning Credit In Lieu of Payment for Facilities Fees and Reimbursement for Construction of Planned Facilities for Drainage, Wastewater, Traffic Circulation and Water Systems"), a copy of which is attached hereto as Exhibit E. Upon the completion of each phase of the Master Planned Facilities and the acceptance of such facilities by the City (which acceptance cannot be unreasonably withheld or delayed), the City shall credit Developer as provided in Resolution 10,272 (the “Master Facilities Fee Credit”). Developer shall be entitled to have the City apply the Master Facilities Fee Credit, or any portion thereof, to the Planned Traffic Circulation Fees, future increases in the Planned Traffic Circulation Fees or any other City imposed traffic or traffic related fees which are intended to fund traffic circulation improvements (collectively, the "Traffic Fees"), subject to the following conditions:

(a) The City shall make no deductions from the Master Facilities Fee Credit except as specifically requested in writing by Developer in order to ensure that the Master Facilities Fee Credit is properly credited to parcels and developments in the Project for which such credits are specifically intended.

(b) In the event Developer's Costs of the Master Planned Facilities exceed the Traffic Fees imposed on the Project then the City shall reimburse Developer for the remaining balance of Developer's Costs pursuant to Resolution No. 10,272.

5.4 Northeast Industrial Assessment District In Lieu Credits.

(a) Predecessors-in-interest to the Property participated in and paid fees to the City as a part of the Northeast Industrial Assessment District (“NIAD”). As a result of the payments made to the NIAD, Developer shall receive a credit against any fees or payments required through this Agreement in the total amount of $ 2,762,156.86 (“NIAD Credit”). Developer shall be entitled to apply the NIAD Credit to the payment of Applicable Fees as set forth in Exhibit C attached hereto.

(b) In exchange for the NIAD Credit, Developer and all its related entities, hereby relinquish, release and waive any and all rights or claims, if any such rights or claims exist, to any financial claim, credit, or offset associated with or arising out of payments made to the NIAD related to the Property or any other participation in the NIAD (“NIAD Claim”).

The Developer acknowledges and agrees that this release applies to all claims that the Developer may have related to the NIAD Claim, whether such claims are known or unknown, foreseen or unforeseen, or patent or latent. The Developer certifies it has read section 1542 of the Civil Code, set out below, and indicates that fact by signing their initial here.

________ (initials)

________ (initials)

Civil Code section 1542: "A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor."

Developer hereby waives application of Civil Code section 1542. The Developer understands and acknowledges that the significance and consequence of this waiver of Civil Code section 1542 is that, even if Developer should eventually be deemed to have further rights to the NIAD Claim, Developer will not be permitted to make any claim for those rights. Furthermore, Developer acknowledges that Developer intends these consequences even as to rights arising out of or related to the NIAD Claim that may exist as of the date of this release but which Developer does not know exist, and which, if known, would materially affect Developer's decision to execute this release, regardless of whether the lack of knowledge is the result of ignorance, oversight, error, negligence, or any other cause. Developer and City warrant and represent that, in executing this release, they have each relied on legal advice from legal counsel of their own choosing, that the terms of this release and its consequences have been completely read and explained to them by their respective legal counsel, and that they fully understand the terms of this release.

5.5 Dedication of Land. Developer agrees to dedicate land within the Property for the public uses described in this Paragraph 5.5. Such dedication shall, at the City's election, be an easement or a transfer of the fee interest but subject to a reversionary right in favor of Developer, its successors or assigns if the public use for which the land is dedicated ever terminates or is abandoned.

(a) Interim Gonzalez Road Extension. Upon notice from the City, the Developer agrees to dedicate to the City a forty foot (40') right-of-way for the extension of Gonzales Road east from Del Norte Boulevard to the boundary of the Property contiguous to the Property's eastern border (the "Powers Property") as shown in the Circulation Plan of the Specific Plan (the "Gonzales Road Dedication"). Developer shall make such dedication within one hundred eighty (180) days after the City's notice to Developer. The City shall compensate Developer for the loss in use of the Property in the Gonzales Road Dedication based upon the revenue Developer would have earned during the period of time Developer would have used the Property for agricultural purposes. The amount of lost revenue shall be determined by the mutual agreement of the City and Developer, and if the City and Developer cannot agree, then by independent appraisal. The City shall condition the approval of the development of the Powers Property upon the construction of the Gonzales Road Extension or, if Developer constructs the Gonzales Road Extension, the reimbursement by Powers to Developer of the Developer's Costs for such interim improvements.

(b) Fire Station Site. The Developer shall participate in the development of a City Fire Station within the Project Area. Developer and the City shall select a mutually agreeable site within Planning Area 2, 3, or 5. The site shall be a minimum of 1.5 acres in size and shall be dedicated at the time of the recordation of the Final Map for the respective site. The site shall provide adequate egress and ingress for Fire Department apparatus to adjacent arterial streets to the satisfaction of the Fire Department. At the City's direction, the Developer shall retain an architect and such other consultants as needed for the design of the fire station. The Developer shall pay all costs to develop the fire station. Completion of fire station plans and specifications shall occur prior to the issuance of a building permit for the first building over 10,000 gsf in the Project Area. Costs of development of the fire station in excess of $3 Million shall be credited to the Developer from Growth Requirement Capital Fees generated by the Project. The fire station shall be completed prior to the issuance of a certificate of occupancy of the first building in any Planning Area.

(a) Park Site. In the event Developer elects to introduce residential uses into the Project, Developer agrees to improve and dedicate to the City approximately three (3) net acres of the Property for use as a municipal park (the "Public Park"). The location of the Public Park shall be subject to the mutual agreement of Developer and the City. The improvement value as determined by independent appraisal shall be credited against the park and recreation fees that the City is authorized to levy against Developer pursuant to California Government Code section 66477 ("Quimby Act")

(b) Rice/101 Interchange Transfer. Pursuant to that certain Settlement Agreement dated ______________, 20__ (the "Settlement Agreement") in the eminent domain case entitled *City of Oxnard vs. Sakioka Farms, etc., et al.*, Ventura County SC Case No. CIV 237760 (the "Eminent Domain Action"), Developer shall grant deed the portion of the Property described as the "________________" pursuant to the terms and conditions set forth in the Settlement Agreement (the "Rice/101 Interchange Transfer"). If Cal Trans, the City or any other governmental or quasi-governmental agency requires Developer or its successors or assigns to grant deed additional land for the Rice/101 Interchange or if the alignment of the Rice/101 Interchange is changed, Developer reserves the right to seek compensation, including, without limitation, severance damages, relating to the additional taking and/or the change in alignment.

(c) Del Norte/101 Interchange Transfer. Developer shall grant deed to the City at no cost to the City that portion of the Property shown on the conceptual plans attached hereto as Exhibit D (the "Del Norte/101 Interchange Transfer") for the Del Norte Boulevard and 101 Freeway interchange improvements (the "Del Norte/101 Interchange"). If Cal Trans, the City or any other governmental or quasi-governmental agency requires Developer or its successors or assigns to dedicate additional land for the Del Norte/101 Interchange or if the alignment of the Del Norte/101 Interchange is changed, Developer reserves the right to seek compensation, including, without limitation, severance damages, relating to the additional taking and/or the change in alignment. The City shall record a lot line adjustment to reflect the final alignment of the right of way and shall convey to Developer without charge the remainder parcel depicted on Exhibit D attached hereto. [VERIFY DEDICATION CALLED OUT IN THE REFERENCED EXHIBIT]

(d)

(e) [DEVELOPER MAY BE REQUIRED TO DEDICATE EASEMENTS FOR WATER, SEWER OR EVEN RIGHT-OF-WAY]

6. Implementation and Development of the Project.

6.1 Permitted Uses. Developer agrees that the Project shall be developed in accordance with the Specific Plan.

6.2 Development Standards. All development and design requirements and standards applicable to the Project shall conform to the Specific Plan and the Applicable Rules consistent therewith.

6.3 Pre Screening/Special Review of New Development in Project. At Developer's request, City and Developer shall cooperate to create a pre screening/special review process for the improvements to be located within the Project to ensure compliance with the Specific Plan. Such pre screening/special review shall occur prior to the issuance of building permits for construction of the improvements. Review of an application through the pre screening/special review process as provided by this subparagraph or the Specific Plan shall not be deemed to waive any of the Applicable Rules pertaining to review or approval of such application. Developer authorizes the imposition of City fees reasonably necessary to cover the direct costs of such prescreening/special review process. This process shall terminate upon the expiration of this Agreement or the issuance of the final certificate of occupancy for development within the Project, whichever occurs first.

6.4 Processing Consultant. Developer may request that the City engage a consultant ("Processing Consultant") to coordinate and expedite the processing of actions required through the Ministerial Permits and Approvals and all Discretionary Actions applicable to the Project. The City agrees, if so requested, to engage such Processing Consultant. Developer shall reimburse the City for the reasonable costs of such Processing Consultant.

6.5 Administration.

(a) The City's Planning Manager shall administer the provisions of the Specific Plan in accordance with the State of California Government Code, Subdivision Map Act, the City of Oxnard Municipal Code, and the General Plan.

(b) The provisions of this Agreement require a close degree of cooperation between the City and Developer and minor changes to the Project may be required from time to time to accommodate design changes, engineering changes and other requirements to implement the Specific Plan. The Planning Manager shall determine in his or her discretion if requests for modifications to the Specific Plan are minor or major consistent with this Paragraph 6.5(b). Minor modifications or amendments shall be accomplished administratively by the Planning Manager and shall not require public notice or hearing, and the adoption of minor changes by Developer and City shall be accomplished by their signing of an "Addendum" reflecting the minor change. Minor modifications to the Specific Plan may include, but are not limited to:

- Changes to the Project that are consistent with the Applicable Rules and which do not result in a change in the type of use, an increase in density or intensity of use, or significant new or increased environmental impacts that cannot be mitigated.

- Changes that do not result in exceeding the trip allocation budget as established in the Sakioka Farms Specific Plan Final EIR or subsequent traffic analyses related to the Sakioka Farms Specific Plan phased development nor adversely impact planned Levels of Service, as determined by the City Traffic Engineer.

- The addition of information to the exhibits or text which serve to clarify, but do not change the meaning or intent.

- Changes to the infrastructure (i.e., storm drain, water and sewer systems), as recommended by the City's Director of Public Works.

- The adjustment, addition and/or lot consolidation as addressed in Section 3 of the Specific Plan.

- Modifications to the alignment of the Planning Area boundaries to coincide with specific development plans, as recommended by the City's Planning Manager.

- Modifications requested by the Planning Manager to implement local, state and/or federal water conservation, greenhouse gas reductions, alternative energy sources and related environmental laws.

- Modifications requested by the Planning Manager consistent with a Citywide implementation of the Sustainable Communities Strategy or Alternative Planning Strategy that is implementing a SB-375 program by the Southern California Association of Governments.

6.6 Project Plan Review. Individual development projects shall be implemented through a Development Design Review ("DDR") permit approved by the City Manager.

6.7 Subsequent Discretionary Action or Approvals. The Parties expressly intend to cooperate and diligently work to implement all applications, plans, maps, agreements, documents, and other instruments or entitlements necessary or appropriate for the rezoning, subdivision and development of the Project including, without limitation, design review approvals, site plan approvals, improvement agreements and other agreements, use permits, grading permits, dirt stockpile permits, encroachment permits, building permits, lot line adjustments, sewer and water connection permits, zoning approvals, boundary adjustments, subdivision maps (including tentative, vesting tentative, parcel, vesting parcel, and final subdivision maps), preliminary and final development plans, landscaping plans, certificates of compliance, resubdivisions, and modifications to the Existing Project Approvals not constituting Ministerial Permits and Approvals (collectively, "Subsequent Approvals"). The City agrees not to unreasonably withhold, condition or delay any Subsequent Approvals. Upon the filing of a complete application and payment of appropriate processing fees by Developer of all required preliminary actions and payment of appropriate processing fees, the City shall promptly commence applicable procedures to:

(a) Schedule and convene all required public hearings in an expeditious manner consistent with the law.

(b) Process in an expeditious manner, all maps, plans, land use permits, building plans and specifications and other plans relating to the development of the Project filed by Developer, including, but not limited to, all zoning, preliminary and final development plans, tentative maps, parcel maps, final maps, resubdivisions, amendments to maps, subdivision improvement agreements, lot line adjustments, encroachments, grading and building permits, associated zoning actions and related matters as necessary for the completion of the development of the Project.

Upon approval of any of the Subsequent Approvals, as they may be amended from time to time, such Subsequent Approvals shall become part of the Project Approvals which shall be deemed to include the Existing Project Approvals and the Subsequent Approvals, and Developer shall have a "vested right," as that term is defined under California law, in and to such Subsequent Approvals by virtue of this Agreement. Notwithstanding the foregoing, Developer shall not have a vested right in and to a major modification to one or more of the Existing Project Approvals.

6.8 Other Governmental Permits and Fees. The City shall cooperate with Developer in its efforts to obtain such other permits and approvals as may be required by other governmental or quasi-governmental agencies (including, without limitation, districts and special districts providing flood control, sewer and fire protection) having jurisdiction over the Project in connection with the development of, or provision of services to, the Project, and shall, from time to time at the request of Developer, attempt with due diligence and in good faith to enter into binding agreements with any such entity necessary to assure the availability of such permits and approvals or services, provided such agreements are reasonable, and provided Developer provides for payment of City expense in connection therewith. The City shall use reasonable efforts to work with other governmental and quasi-governmental agencies so as to limit to the maximum extent possible the imposition of additional fees, dedications or exactions by or through such agencies, provided that the City shall not be required to bear any expense in connection with said efforts.

6.9 Environmental Review. The extent and intensity of anticipated development activity for the Project Area have been identified in the Specific Plan and analyzed in the Environmental Impact Report. Development project requests consistent with the Specific

Plan may be subject to additional environmental review as required by the California Environmental Quality Act.

6.10 Rough Grading Prior to Recordation of the Final Maps. Subject to: (1) the City's receipt, review and approval of a grading plan for the Project or any portion thereof (the "Grading Plan"), geotechnical report and engineering geologic report for the Property; (2) Developer's satisfaction of the City's bonding requirements; and (3) requirements for the issuance of a grading permit with respect to such Grading Plan, the City agrees to review the reports and the Grading Plan when submitted and issue a grading permit with respect to the Grading Plan subject to the Grading Plan's compliance with all Applicable Rules. The City agrees that the Grading Plan will be timely reviewed by the City, that a grading permit with respect to the Grading Plan may be issued and that Developer may rough grade the Property in accordance with the approved Grading Plan without Developer first recording the final maps associated with the Project. The City reserves the right to condition the issuance of such rough grading permits upon Developer implementing and maintaining reasonable and appropriate erosion control measures until sufficient work on the Property is completed to address erosion concerns.

6.11 Financing Districts. At Developer's request and to the extent permitted by State law, the City shall consider (1) establishing one or more community facilities districts, assessment districts, infrastructure financing districts, or other form of district or bond financing authorized by California as a means to fund public improvements and/or the maintenance of those improvements (a "Financing District") and (2) creating bonded indebtedness to finance the construction, acquisition, and/or maintenance of facilities associated with the Project. If any of the proceeds of such bonded indebtedness are not used or if any reimbursement is received by the Financing District that is not used for the purpose for which the Financing District was established, then such unused proceeds or any such reimbursement shall be used to retire or defease (as applicable) a portion of such bonded indebtedness.

It is presently anticipated that these Financing Districts will consist of:

(a) A "Capital Improvement Community Facilities District" created pursuant to California Government Code section 53311 *et seq.*, to establish a community facilities district and create bonded indebtedness for the purpose of financing the construction or acquisition cost of a portion of community facilities associated with the Project. The establishment and maintenance of the Capital Improvement Community Facilities District shall be in accordance with City Council Resolution No. 11,630 adopted on September 14, 1999.

(b) A "Maintenance Community Facilities District" created pursuant to California Government Code section 53311, *et seq.*, to establish a community facilities district for the purpose of funding the cost of maintaining certain community facilities, improvements, and other services authorized pursuant to section 53313 *et seq.* of the California Government Code, including, but not limited to, landscaping, public recreation areas, recreation trails, water features, related equipment, and contribution to the provision of public safety services in the Specific Plan. Specifically, the Maintenance Community Facilities District shall contribute $300,000, annually adjusted by the increase in the Consumer Price Index, All Urban Consumers, as published by the Bureau of Labor Statistics of the United States Department of Labor, to the operation of the Fire Station. The establishment and maintenance of the Maintenance Community Facilities District shall be in accordance with City Council Resolution No. 11,630 adopted on September 14, 1999.

6.12 Phasing.

(a) The City and Developer acknowledge that Developer cannot predict when or in what order the Project will be developed. Such decisions depend upon numerous factors which are not within the control of Developer including, but not limited to, market orientation and demand, interest rates, competition and similar factors beyond the control of Developer. Developer shall have the discretion to develop the Project in phases and in such order as Developer deems appropriate within the exercise of its subjective and independent business judgment. Specifically, City and Developer agree that Developer shall be entitled to apply for and receive permits, maps, certificates of occupancy and other entitlements to use at any time that this Agreement is in effect, provided that such actions are in accordance with the Applicable Rules. Because the California Supreme Court held in Pardee Construction Co. vs. City of Camarillo, 37 Cal.3d 465 (1984), that failure of the parties therein to provide for the timing of development resulted in a later-adopted initiative restricting the timing of development to prevail over such parties' agreement, the parties herein intend to cure that deficiency by acknowledging and providing that Developer shall have the right (without obligation) to develop the Project in such order and at such rate and at such time as Developer deems appropriate within the exercise of its subjective business judgment.

(b) The Project Area will be developed in various phases over the next several years. In order to accommodate the anticipated intermittent development patterns, all required circulation infrastructure and community improvements to accommodate each new development of the Specific Plan shall be completed prior to, or simultaneously with, individual projects. The Specific Plan Planning Areas as described on the Phasing Matrix (Exhibit 4.32) of the Specific Plan may be further divided into subareas to better reflect the anticipated development pattern and infrastructure improvement phasing. The Phasing Plan presents a schedule of project development based on an incremental installation of infrastructure improvements. The Phasing Plan recognizes that the Project Area is presently vacant with few infrastructure improvements. The development phasing schedule has been prepared to provide that adequate public facilities and services will be available for each new project.

6.13 Extension of Maps and Project Approvals. In accordance with Government Code section 66452.6, subd. (a) and Government Code section 65863.9, unless a longer term would result under otherwise applicable state law, the term of any subdivision map or other permits approved as part of the Project approvals shall be automatically extended for the term of this Agreement.

6.14 Calculation of Floor Area Ratio. Developer and City agree that the calculation of the Floor Area Ratio (the "FAR") for the Project which permits up to 8,500,000 square feet of development within the Project shall not be reduced or otherwise impacted by (a) the Rice/101 Interchange Dedication, (b) the Del Norte/101 Interchange Dedication, (c) the Gonzales Road Dedication, (d) the dedication of the Fire Station Site, (e) the dedication of the

ASR Site, and (f) the dedication of any other land within the Project required to be dedicated for public use.

6.15 Property Acquisition for Public Improvements. City shall cooperate with Developer in coordinating all onsite and offsite public facility improvements, including, but not limited to, roads, sewers, and other infrastructure, constructed or enhanced under this Agreement or in connection with the development of the Property. Developer shall use good faith efforts to acquire any right(s)-of-way necessary to construct such public facility improvements. If, for any reason, Developer is unable or fails to acquire such needed right(s)-of-way within four months after Developer begins its acquisition efforts, City shall take such actions as are necessary and consistent with State law to acquire such right(s)-of-way. City may, and where needed shall, use its powers of eminent domain to condemn such right(s)-of-way. Developer shall pay for all costs associated with such acquisition and condemnation proceedings. If the City cannot make the proper findings or if, for any other reason under State condemnation laws, City is prevented from acquiring the necessary right(s)-of-way, then the Parties shall amend this Agreement and any Existing Project Approvals to eliminate any obligation of Developer which requires the acquisition of the subject right(s)-of-way. City may require a substitute obligation to provide public improvements which will serve the same purpose as the eliminated obligation, provided that, by comparison to the eliminated condition, (1) the cost to Developer of implementing the new condition will not increase, (2) there will be no impact on Developer's ability to develop the Property to the maximum density and intensity permitted by this Agreement, and (3) the provisions of this Paragraph 6.15 pertaining to the acquisition of right(s)-of-way will apply to the new condition in the same manner as the eliminated condition. Nothing contained in this Paragraph 6.15 shall be deemed to constitute a determination or resolution of necessity by City to initiate condemnation proceedings.

7. Affordable Housing Development. If Developer elects to introduce residential uses into the Project under the Specific Plan, the residential component under the Specific Plan shall include the Affordable Housing Units (as defined below) and the Workforce Housing described below, each of which shall be held, transferred, encumbered, used, sold, conveyed, leased and occupied, subject to the covenants and restrictions set forth herein. Developer acknowledges that its agreement to construct Affordable Housing Units and Workforce Housing is in exchange for the regulatory incentives included in this Agreement.

7.1 Affordable Housing Units.

(a) A minimum of Fifteen Percent (15%) of the Dwelling Units constructed in the Project shall be Affordable to Low Income Households (collectively, "Affordable Housing Units"). The City Council may increase the affordable housing requirement to not more than Twenty-one Percent (21%) based on a nexus study that compares the economic profile of jobs, past and future, created within the Specific Plan to the City's supply, planned feasible development, and RHNA target for affordable housing by affordable housing category. Developer's obligation to provide the Affordable Housing Units shall be referred to herein as the "Affordable Housing Requirement."

(b) Developer shall have fully satisfied and complied with the Affordable Housing Requirement at such time that Developer conveys the land in the Project (the "Affordable Housing Site") necessary for the construction of the Affordable Housing Units to a non-profit organization dedicated to the production of affordable housing acceptable to Developer and the City ("Non-Profit Housing Organization"). Subject to compliance with the Specific Plan, federal, state and local laws, resolutions and planning requirements, the location and size of the Affordable Housing Site shall be determined by Developer in its sole discretion. As a condition of such land being conveyed to the Non-Profit Housing Organization, the Non-Profit Housing Organization must assume all of the Affordable Housing Requirements set forth in this Agreement. Developer shall have no obligation to perform any improvements to the Affordable Housing Site, and at such time that the land for the Affordable Housing Site is conveyed to the Non-Profit Housing Organization pursuant to the provisions of this Paragraph 7.1, Developer shall be released from its obligations under this Agreement relating to the Affordable Housing Units.

(c) A density of not more than 24 units per acre shall be used for purposes of determining the appropriate amount of land for the Affordable Housing Site, net of street and park dedications.

(d) The Affordable Housing Site shall be conveyed to the Non-Profit Housing Organization subject to covenants, conditions, restrictions and reciprocal easements (the "Residential CCRs") which shall, among other matters, provide for architectural controls to be exercised by Developer as "Declarant" and its successors and assigns, reciprocal easements and access to the Affordable Housing Units and the Residential Project, if necessary, and other covenants, conditions and restrictions determined by Developer. The Residential CCRs shall require the Non-Profit Housing Organization to maintain all interior and exterior improvements in the Affordable Housing Project, including landscaping, in good condition and repair (and, as to landscaping, in a healthy condition), reasonable wear and tear excepted, and in accordance with applicable laws, rules, ordinances, orders, and regulations of all governmental agencies and bodies having or claiming jurisdiction. In addition, the Residential CCRs shall require that the Non-Profit Housing Organization keep the Affordable Housing Site free from all graffiti and any accumulation of debris or waste material.

(e) The Affordable Housing Units shall be rented at rents that are Affordable to Low Income Households for a period of thirty (30) years from the date the first Affordable Housing Unit is rented to a member of the public eligible for Affordable Housing.

7.2 <u>Workforce Housing Units</u>.

(a) A minimum of Ten percent (10%) of the Dwelling Units constructed in the Residential Project shall be Workforce Housing (the "Workforce Housing Units") which are separate from the Section 7.1 Affordable Housing units.

(b) The Workforce Housing Units shall be rented or for sale at rents or sales prices that are affordable to Workforce Households for a period of twenty (20) years from the date the first Workforce Housing Unit is rented or sold to a member of the public eligible for Workforce Housing.

(c) Developer and its successors and assigns shall make commercially reasonable efforts to offer vacant Workforce Housing Units to employees of the Business Park prior to offering such units to members of the public.

(d) Affordable Housing Fee. In lieu of providing the Affordable Housing Units within the Project pursuant to Paragraph 7.1 of this Agreement, Developer may elect to pay the City's affordable housing in-lieu fee pursuant to Ordinance No. 2721.

7.3 No Other Affordable Requirements. Except for the Affordable Housing Units and the Workforce Housing Units or, if Developer elects and approved by the City Council, the In Lieu Fees, the City shall not impose any additional affordable housing requirements or fees on any portion of the Residential Project during the term of this Agreement or any extension thereof with the exception of a requirement consistent with a Citywide implementation of the Sustainable Communities Strategy or Alternative Planning Strategy that is implementing a SB-375 program by the Southern California Association of Governments.

8. Water, Sewer and Recycled Water Services Provided by the City to the Project. The Parties agree that the City shall provide water, recycled water and wastewater-related utility services to the Project and the infrastructure improvements required for the Project (collectively, the "**Improvements**") shall be constructed as more particularly set forth in this Paragraph.

8.1 Subject to the terms of this Agreement, the City has and will have sufficient capacity for public sewer collection, sewer treatment and sanitation service, and water treatment, distribution and service to accommodate the Project, as each final map for the Project is recorded. The City has analyzed the existing and projected water needs for the areas served by the City and has determined that the City and its applicable water purveyors have the necessary water supplies available to properly serve the Project. To the extent that the City renders the services or provides the utilities referenced in this Paragraph, the City agrees to timely grant or issue hookups or service to all development in the Project upon request for such hookups and services. Notwithstanding the foregoing, the City may delay the granting of any or all requested water hookups for the Project, provided the City declares a water shortage emergency and adopts a moratorium on issuance of new water services pursuant to Water Code section 350 *et. seq.* When the City lifts the restrictions imposed pursuant to Water Code section 350 *et. seq.*, it shall adopt nondiscriminatory rules for issuance of new water service connections, giving priority to those development projects which had already received full development approval prior to the adoption of the water shortage emergency.

8.2 **On-Site Improvements.** Developer shall construct, repair, and / or upgrade to the extent necessary the Improvements that are within the Project Area and serve only the Project (the "**On-Site Improvements**") at Developer's sole cost and expense.

8.3 Offset for Master Planned Facilities. Subject to Paragraph 5 of this Agreement, should Developer construct Improvements that are Master Planned Facilities on or serving the Property, the City agrees to credit or reimburse Developer for City approved costs of the design and construction of these Master Planned Facilities in excess of the Water, Recycled Water or Wastewater Impact Fees charged to this Project.

8.4 **Off-Site Improvements.** The Parties acknowledge that the off-site Improvements described in Exhibit X (the "**Off-Site Improvements**") are needed to serve both the Project, at build-out, as well as the other projects as designated on Exhibit X.

(a) On or before ______, the City shall provide Developer with a revised Exhibit X, which shall include a final estimation of the total cost for each Off-Site Improvement (the "**Total Estimated Off-Site Improvements Cost**"); provided, that the scope of the Off-Site Improvements and percentage cost allocation for each Off-Site Improvement listed in Exhibit X shall not be modified (hereinafter, the "**Revised Exhibit X**").

(b) **Subdivision Improvement Agreement for Off-Site Improvements.** On or before _____, the City and the Developer shall enter into a "Subdivision Improvement Agreement" consistent with the Revised Exhibit X, which at a minimum, shall set forth: (i) the Off-Site Improvements; (ii) Total Estimated Off-Site Improvements Cost; (iii) Developer and City's respective percentage cost allocation of each Off-Site Improvement; (iv) the anticipated completion date of each Off-Site Improvement; and (v) provision for the adjustment and reconciliation of Total Estimated Off-Site Improvements Cost to reflect the Total Actual Off-Site Improvements Cost, substantially as set forth in Paragraph 8(c), and (vi) a method of resolving any disputes regarding the reimbursement for Total Actual Off-Site Improvements Cost. The Subdivision Improvement Agreement also shall set forth the form and amount of security (either a performance bond, letter of credit, or other form of security mutually acceptable to the Parties) which Developer shall provide to the City to guarantee payment to the City of the Developer's share of the Total Estimated Off-Site Improvements Cost.

(c) **Reconciliation of Estimated Costs to Incurred Costs.** Upon completion of the construction of the Off-Site Improvements, the Total Estimated Off-Site Improvements Cost set forth on Revised Exhibit X shall be adjusted as necessary to reflect the actual costs incurred by the City in connection with the construction of the Off-Site Improvements (such adjusted amount, the "**Total Actual Off-Site Improvements Cost**"). The percentage cost allocation provided in Revised Exhibit X shall remain unchanged, and such adjustment shall ensure that the Developer and the City shall each pay no more than their respective share of the actual costs incurred by the Parties in connection with the Off-Site Improvements, including but not limited to, the design, permitting, administrative and construction costs associated with the Off-Site Improvements. Provided the Total Actual Off-Site Improvement Cost is no more than five percent (5%) higher than the Total Estimated Off-Site Improvements Cost, Developer's obligation to reimburse the City shall be capped at and not exceed the Developer's share of the Total Estimated Off-Site Improvements Cost set forth in the Revised Exhibit X. The Subdivision Improvement Agreement shall provide for the circumstance where the Total Actual Off-Site Improvements Cost exceeds by greater than 5% the Total Estimated Off-Site Improvements Cost.

(d) Developer shall: (i) provide to the City either a performance bond, letter of credit or other form of security mutually acceptable to the Parties to guarantee payment to the City of Developer's share of the Total Estimated Off-Site Improvements Cost, as more particularly provided in the Subdivision Improvement Agreement, and (ii) reimburse the City for Developer's share of the Total Estimated Off-Site Improvements Cost as specified in Revised Exhibit X, subject to adjustment as provided in Paragraph 8(c). Developer shall pay to the City 50% of the Developer's share on or before December 31, _____, and shall pay the remaining 50% on or before December 31,______.

(e) **Additions to Master Planned Facilities.** The Parties acknowledge that the Off-Site Improvements are not currently included within the City's approved Master Planned Facilities, nor are any portion of the Total Estimated Off-Site Improvements Cost included in any Applicable Fees. However the Off-Site Improvements are consistent with the types of facilities included in the City's Master Planned Facilities. The City, at its sole discretion, may: (i) elect to add all or some portion of the Off-Site Improvements to the City's Master Plan in the future, and (ii) include all or some portion of the Total Estimated Off-Site Improvements Cost within one or more of the Applicable Fees. To the extent the City adjusts any Applicable Fees to include some or all of the Total Estimated Off-Site Improvements Cost, Developer, to the extent it has paid the adjusted Applicable Fees, shall be entitled to an offset against its share of the Total Estimated Off-Site Improvements Cost. The Subdivision Improvement Agreement shall provide the mechanism by which this accounting and offset shall be calculated.

8.5 **Water Rights and Water Allocation.** Consistent with the provisions of the Recycled Water Service Agreement (see below), the Parties shall coordinate and cooperate to obtain all approvals necessary to transfer to the City a minimum of __ acre-feet of Fox Canyon Groundwater Management Agency ("FCGMA") historical allocation.

8.6 **Aquifer Storage and Recovery Well Site.** Developer shall grant to the City an approximate – by – foot portion of the Property for use as an aquifer storage and recovery well site ("ASR Site"), to be integrated into the City's Groundwater Recovery Enhancement and Treatment Program ("GREAT Program"). The ASR Site shall be located --- and include ingress and egress rights sufficient to construct, operate, maintain and repair an aquifer storage and recovery groundwater well and associated facilities, and connection of that well to a recycled water distribution pipeline to be located along the public right of way on ---.

8.7 **Recycled Water for Agricultural Use on the Property.** The City and Developer acknowledge that the Property is currently being used for agricultural uses. Developer intends to continue to use the Property for such purposes until the Property is developed in accordance with the Specific Plan. The City agrees that Developer shall not be required to grant to the City any groundwater rights belonging to all or any portion of the Property while Developer is continuing to use the Property for agricultural uses until recycled water is available for use for agricultural purposes on the Property. On or before ____, Developer and the City shall enter into a Recycled Water Service Agreement ("Developer Recycled Water Service Agreement") which shall provide for, but not be limited to, the following: a) Developer's commitment to use GREAT Program generated recycled water on specified portions of the Property, both during the development process, and following completion of the Project; b) recycled water shall be the exclusive water supply source for all purposes amenable for recycled water uses; c) the City shall provide the recycled water for commercial agricultural irrigation use on the Project Area at a cost no more than that which Developer would incur to obtain an equal quantity of groundwater through a groundwater well located on or nearby the Property; d) recycled water supplied for uses other than commercial agricultural production shall be charged at the then applicable rate established through the City's rate making process; e) Developer shall cooperate and coordinate with the City in obtaining FCGMA approval to grant the City a minimum of 1 acre-foot groundwater pumping credit for each acre-foot of recycled water used for commercial agricultural purposes; Developer shall not receive any compensation or cost offset for these FCGMA pumping credits granted to the City; f) the City's prior approval shall be obtained for any groundwater used on the Project Area; such groundwater use shall not interfere with the operation of the ASR component of the GREAT Program and the City's approval consideration shall be limited to an evaluation of such potential interference; and g) designation of an on-site supervisor who shall be responsible to receive training from the City and oversee use of recycled water on the Property.

9. **Standards for and Dedication of Improvements**. All grading, paving, curbs and gutters, pathways, bikeways, water and recycled water facilities and distribution systems, storm water drains, storm water drainage systems and associated collection facilities, waste water collection and sanitary sewers, utilities, street lights, traffic safety devices and ornamental "street trees", landscaping and landscaping maintenance, and Off-Site and On-Site Improvements that are associated with the Project shall be designed, constructed and completed in accordance with City standards and Applicable Law. All On-Site and Off-Site Improvements located within the public right-of-way shall be dedicated to the City upon completion of construction and final acceptance by the City.

10. Cooperation in Relocation of Utilities. To facilitate the development of the Project, which will benefit the entire City, the City agrees to cooperate in the relocation of utilities on or adjacent to the Project Area, which are reasonably necessary to develop the Property pursuant to the provisions of the Specific Plan, provided that such cooperation is at no cost or expense to the City. Such cooperation shall include, but not be limited to, the City serving as the applicant in any such relocation matters, where appropriate.

11. Compliance Review.

11.1 Periodic Review. Pursuant to the Development Agreement Statute, the City Manager shall, not less than once in every twelve (12) months, review the Project and this Agreement to ascertain whether or not Developer is in full compliance with the terms of this Agreement (the "Periodic Review").

11.2 Review Procedure. During a Periodic Review, Developer shall provide information reasonably requested by the City Manager that the Project is being developed in good faith compliance with the terms of this Agreement. Upon completion of a Periodic Review, the City Manager shall submit a report to the City Council setting forth the City Manager's findings. If, as a result of a Periodic Review, the City Council finds and determines on the basis of substantial evidence that Developer has not complied in good faith with the terms or conditions of this Agreement, the City shall issue a written "Notice of Non Compliance" to Developer specifying the grounds therefore and all facts demonstrating such non compliance. Developer's failure to cure the alleged non compliance within one hundred twenty (120) days after receipt of the notice, or, if such noncompliance is not capable of being cured within one hundred twenty (120) days, Developer's failure to initiate substantially all actions required to cure such non compliance within one hundred twenty (120) days after receipt of the notice, shall constitute a default under this Agreement on the part of Developer and shall constitute grounds for the termination of this Agreement by the City as provided for below.

11.3 Termination or Modification for Non Compliance. Pursuant to the Development Agreement Statute, if the City Council finds and determines, on the basis of substantial evidence, that Developer has not complied in good faith with the terms or conditions of this Agreement, the City Council may modify or terminate this Agreement. Any action by the City with respect to the termination or modification of this Agreement shall comply with the notice and public hearing requirements of the Development Agreement Statute in addition to any other notice required by law. Additionally, the City shall give Developer written notice of its intention to terminate or modify this Agreement and shall grant Developer a reasonable opportunity to be heard on the matter and to oppose such termination or modification by the City. Notwithstanding anything to the contrary contained herein, no such modification to this Agreement shall impose additional burdens or obligations upon Developer.

12. Amendment.

12.1 Amendment of Agreement. This Agreement may be amended from time to time by the mutual consent of the Parties hereto but only in the same manner as its adoption by an ordinance as set forth in the Development Agreement Statute. The term "Agreement" used herein shall include any such amendment properly approved and executed. For purposes of this Agreement, the resubdivision of the Project or the filing of an amended subdivision map which creates new legal lots (including the creation of new lots within any designated remainder parcel) or which reflects a merger of lots, shall not require an amendment to this Agreement. Those Subsequent Approvals which are consistent with the General Plan and the Specific Plan also shall not require an amendment to this Agreement.

12.2 Cancellation or Termination of Agreement. This Agreement may be canceled and terminated at any time by mutual consent in writing of all Parties.

13. Assignment.

13.1 Developer's Right to Assign. Developer shall have the right to sell, lease, assign, hypothecate or otherwise transfer (a "Transfer") all or any portion of the Project (the "Transferred Property"), and to assign part or all of its rights, title and interest in and to this Agreement, to one or more persons or entities (a "Transferee") at any time and from time to time during the Term of this Agreement, subject to the following terms and conditions:

(a) Developer's rights and obligations under this Agreement may be transferred only in conjunction with the Transfer of the portion of the Transferred Property to which the rights and obligations apply; [WE DO NOT HAVE THE AGREEMENT WRITTEN UP THIS WAY]

(b) Developer shall give written notice to the City upon the closing or other completion of a Transfer, and shall concurrently deliver to the City a fully executed Assignment and Assumption Agreement between Developer and the Transferee pursuant to which Developer shall assign and delegate to the Transferee, and the Transferee shall accept, assume and agree to perform all of the rights and obligations of Developer under this Agreement that are allocable to the Transferred Property (the "Assignment and Assumption Agreement"), and

(c) Except as otherwise provided in Paragraph 13.2 below, upon recordation of the deed conveying title to the Transferred Property to the Transferee and delivery to the City of the fully executed Assignment and Assumption Agreement (the date of delivery to be the "Transfer Date"), the Transferee shall succeed to all of Developer's rights under this Agreement which relate to the Transferred Property (including without limitation the right to Transfer), and to all of Developer's obligations which relate to the Transferred Property, and Developer shall have no further rights or obligations under this Agreement with respect to the applicable Transferred Property, except for any such rights and obligations that accrued prior to the Transfer Date.

13.2 Transfer of Obligations. [THIS NEEDS TO BE EXPLAINED TO LEGAL]If Developer so elects in its sole discretion, Developer may enter into a separate agreement with a Transferee (a "Transfer Agreement") concerning the allocation of rights and obligations between Developer and Transferee with respect to the Transferred Property. Without limiting the foregoing, a Transfer Agreement may contain provisions: (a) assigning to the Transferee any obligations that otherwise would not relate to the Transferred Property (provided the Transferee expressly assumes all such obligations); (b) releasing the Transferee from any obligations that otherwise could relate to the Transferred Property; (c) reserving to Developer certain rights that relate to the Transferred Property and otherwise would be assigned in the Assignment and Assumption Agreement; (d) assigning to the Transferee any of Developer's other rights hereunder; and (e) defining and describing the extent to which the Transferee will be deemed to be a "Developer" hereunder. To the extent a Transfer Agreement delegates obligations to a Transferee that otherwise would not be allocable to the Transferred Property, the Transferee shall be liable for the performance of such delegated obligations on and after the Transfer Date and Developer shall have no further liability with respect thereto. Such Transfer Agreements shall not be binding upon or amend the City's rights under this Agreement unless the City agrees to such assignments of rights and obligations in writing, which agreement shall not be unreasonably withheld, conditioned or delayed.

13.3 Non-Assuming Transferees. The burdens, obligations, and duties of Developer under this Agreement shall terminate with respect to, and neither a Transfer Agreement nor the City's consent shall be required in connection with, any parcel conveyed to a purchaser. [WHAT IS MEANT BY THIS?] The transferee in such a transaction and its successors shall be deemed to have no obligations under this Agreement, but shall continue to benefit from the vested rights provided by this Agreement for the duration of the Term.

13.4 Liability for Default. The default under this Agreement by any Transferee shall not entitle the City to modify or terminate this Agreement, or otherwise affect any rights hereunder, with respect to any portion of the Project other than that portion that is owned or leased by the Transferee in default.

13.5 Covenants Run with the Land; Binding Effect. Subject to the terms, conditions and exceptions set forth in this Paragraph 13.5 and elsewhere in this Agreement, this Agreement shall run with the land, and shall be binding upon and inure to the benefit of the parties' respective successors and assigns (including without limitation all Transferees). This Agreement shall terminate with respect to any lot, and such lot shall be released and no longer be subject to this Agreement, without the recordation of any further document, when a certificate of occupancy has been issued for the building(s) on the lot.

14. Defaults Notice and Cure Periods, Events of Default and Remedies.

14.1 Default By Developer.

(a) Default. If Developer does not perform its material obligations under this Agreement in a timely manner, the City may exercise all rights and remedies provided in this Agreement, provided the City shall have first given written notice to Developer, and provided further Developer may appeal such declaration in the manner provided in, and subject to all terms and provisions of Paragraph 14.

(b) Notice of Default. If Developer does not perform its material obligations under this Agreement in a timely manner, the City through the City Manager may submit to Developer a written notice of default in the manner prescribed in Paragraph 19.1 identifying with specificity those obligations of Developer under this Agreement which have not been timely performed. Upon receipt of any such written notice of default, Developer shall promptly commence to cure the identified default(s) at the earliest reasonable time after receipt of any such written notice of default and shall complete the cure of any such default(s): (1) within thirty (30) days in the case of payment of money; (2) no later than one hundred and twenty (120) days; or (3) if within one hundred twenty (120) days is not possible within such longer period as is reasonably necessary to remedy such default(s), provided Developer shall commence the cure of any such default(s) within such one hundred and twenty (120) day period and thereafter diligently pursue such cure at all times until any such default(s)is cured.

(c) Failure to Cure Default Procedure. If after the cure period provided in Paragraph 13.1(b) has elapsed, the City Manager finds and determines Developer, or its successors, transferees and/or assignees, as the case may be, remains in default and that the City intends to terminate or modify this Agreement, or those transferred or assigned rights and obligations, as the case may be, the City's Development Services Director shall make a report to the Planning Commission and then set a hearing before the Planning Commission in accordance with the notice and hearing requirements of the Development Agreement Statute. If after hearing, the Planning Commission finds and determines, on the basis of substantial evidence, that Developer, or its successors, transferees and/or assigns, as the case may be, has not cured a default under this Agreement pursuant to this Paragraph 14, and that the City may terminate or modify this Agreement, or those transferred or assigned rights and obligations, as the case may be, Developer, and its successors, transferees and/or assigns, shall be entitled to appeal that finding and determination to the City Council in accordance with Paragraph 15. Such right of appeal shall include, but not be limited to, an objection to the manner in which the City intends to modify this Agreement if the City intends as a result of a default of Developer, or one of its successors or assigns, to modify this Agreement. In the event of a finding and determination that all defaults are cured, there shall be no appeal by any person or entity.

(d) Termination or Modifications of Agreements. The City may terminate or modify this Agreement, or those transferred or assigned rights and obligations, as the case may be, after such final determination of the City Council or, where no appeal is taken, after the expiration of the applicable appeal periods described in Paragraph 15. Notwithstanding any other provision of this Agreement to the contrary, in the event that: (a) Developer or any of its successors assigns some, but not all, of its rights under this Agreement in connection with a sale of some, but not all, of the Property; and (b) thereafter Developer or one or more of its successors in interest under this Agreement is in default under this Agreement and either Developer or one or more of its successors in interest under this Agreement is not in default under this Agreement, then any remedy the City may have the right to take under this Agreement including the right of termination or modification of this Agreement shall only apply to the party(ies) that is (are) in default and the portions of the Property owned by such party(ies) and shall not apply to Developer or any successor and/or assignee of Developer under this Agreement that is not in default hereunder. Notwithstanding anything to the contrary contained herein, no such modification to this Agreement shall impose additional burdens or obligations upon Developer.

(e) Lender Protection Provisions.

(i) Notice of Default. In addition to the notice provisions set forth in Paragraph 14.1(b), the City shall send a copy of any notice of default sent to Developer or any of its successors or assigns to any lender that has made a loan then secured by a deed of trust against the Property, or a portion thereof, provided such lender shall have (a) delivered to the City written notice in the manner provided in Paragraph 19.1 of such lender's election to receive a copy of any such written notice of default and (b) provided to the City a recorded copy of any such deed of trust. Any such lender that makes a loan secured by a deed of trust against the Property, or a portion thereof, and delivers a written notice to the City and provides the City with a recorded copy of any such deed of trust in accordance with the provisions of this Paragraph 13.1(e) is herein referred to as a "Qualified Lender."

(ii) Right of a Qualified Lender to Cure a Default. If Developer, or any of its applicable successors or assigns, fails to timely cure any default under this Agreement within the time periods specified in Paragraph 14.1(b), then the City shall send a written notice of any such failure to timely cure any such default to each Qualified Lender. From and after receipt of any such written notice of failure to cure, each Qualified Lender shall have the right to cure any such default, provided the Qualified Lenders commence the cure of any such default within sixty (60) days after receipt of any such written notice of failure to cure and thereafter diligently pursue the cure thereof to completion.

(iii) Exercise of City's Remedies. Notwithstanding any other provision of this Agreement, the City shall not exercise any right or remedy granted under this Agreement or otherwise arising out of a default under the Agreement by Developer or any of its successors or assigns during the period of time which Developer, any of its successors or assigns and/or a Qualified Lender has the right to cure any such default pursuant to this Paragraph 14.

(iv) No Impairment of Development Agreement to Mortgage. No default by the Developer (or any successor or assign) under this Agreement shall subordinate, invalidate or defeat the lien of any mortgage held by a lender. Neither a breach of any obligation secured by any mortgage held by a lender or other lien against the mortgaged interest, nor a judicial foreclosure, trustee's sale or acceptance of a deed in lieu of foreclosure (a "Foreclosure") under any mortgage or other lien, shall defeat, diminish, render invalid or unenforceable or otherwise impair the Developer's rights or obligations, or constitute a default, under this Agreement. In no event shall a Foreclosure or other exercise by a lender of its pre- or post-Foreclosure rights in connection with a mortgage require any consent or approval by the City.

(v) Lender's Obligations with Respect to the Property. Notwithstanding anything to the contrary in this Agreement, no lender shall have any obligations or other liabilities under this Agreement unless and until the lender acquires title to the portion of the Property that was subject to the applicable mortgage. Without limiting the foregoing, no lender shall have any obligations or other liabilities under this Agreement solely because it holds a mortgage, or an interest in any party or successor or assign.

14.2 Default by the City.

(a) Default. In the event the City does not accept, process or render a decision in a timely manner on necessary development permits, entitlements, or other land use or building approvals for use as provided in this Agreement upon compliance with the requirements therefore, or as otherwise agreed to by the City and Developer, or the City fails to honor Developer's vested rights pursuant to this Agreement or the City otherwise defaults under the provisions of this Agreement, Developer shall have all rights and remedies provided herein or by applicable law, which shall include compelling the specific performance of the City's obligations under this Agreement provided Developer has first complied with the procedures in Paragraph 14.2(b).

(b) Notice of Default. Prior to the exercise of any other right or remedy arising out of a default by the City under this Agreement, Developer shall first submit to the City a written notice of default stating with specificity those obligations which have not been performed under this Agreement. Upon receipt of the notice of default, the City shall promptly commence to cure the identified default(s) at the earliest reasonable time after receipt of the notice of default and shall complete the cure of such default(s) no later than thirty (30) days after receipt of the notice of default, or such longer period as is reasonably necessary to remedy such default(s), provided the City shall continuously and diligently pursue each remedy at all times until such default(s) is cured. In the case of a dispute as to whether the City is in default under this Agreement or whether the City has cured the default, or to seek the enforcement of this Agreement, the City and Developer may commence legal action.

14.3 Monetary Damages. Developer and the City acknowledge that neither the City nor Developer would have entered into this Agreement if either were liable for monetary damages under or with respect to this Agreement or the application thereof. Both the City and Developer agree and recognize that, as a practical matter, it may not be possible to determine an amount of monetary damages which would adequately compensate Developer for its investment of time and financial resources in planning to arrive at the kind, location, intensity of use, and improvements for the Project, nor to calculate the consideration the City would require to enter into this Agreement to justify such exposure. Therefore, the City and Developer agree that neither shall be liable for monetary damages under or with respect to this Agreement or the application thereof and the City and Developer covenant not to sue for or claim any monetary damages for the breach of any provision of this Agreement. The foregoing waiver shall not be deemed to apply to any fees or other monetary amounts specifically required to be paid by Developer to the City pursuant to this Agreement. The foregoing waiver shall also not be deemed to apply to any fees or other monetary amounts specifically required to be paid or credited by the City to Developer pursuant to this Agreement, including, but not limited to any fee credits specifically required to be credited by City to Developer or its assignee(s). The foregoing waiver shall not be deemed to apply to attorneys' fees and other costs and expenses required to be paid to the prevailing party pursuant to Paragraph 19.6 of this Agreement.

15. Administration of Agreement and Resolution of Disputes. Developer shall at all times have the right to appeal to the City Council any decision or determination made by any employee, agent or other representative of the City concerning the Project or the interpretation and administration of this Agreement. All City Council decisions or determinations regarding the Project or the administration of this Agreement shall also be subject to judicial review pursuant to Code of Civil Procedure section 1094.5, provided that, pursuant to Code of Civil Procedure section 1094.6, any such action must be filed in a court of competent jurisdiction not later than ninety (90) days after the date on which the City Council's decision becomes final. In addition, in the event Developer and the City cannot agree whether a default on the part of Developer, or any of its successors or assigns, under this Agreement exists or whether or not any such default has been cured, then the City or Developer may commence legal action.

16. Recordation of this Agreement. Pursuant to Government Code section 65868.5, the City Clerk shall record a copy of this Agreement in the Official Records of the County within ten (10) days after the mutual execution of this Agreement.

17. Constructive Notice and Acceptance. Every person or entity who now or hereafter owns or acquires any right, title or interest in or to any portion of the Property is, and shall be, conclusively deemed to have consented and agreed to every provision contained herein, whether or not any reference to this Agreement is contained in the instrument by which such person acquired an interest in the Property.

18. No Third Party Beneficiaries. This Agreement is made and entered into for the sole protection and benefit of the City, Developer and their respective successors and assigns. No other person or entity shall have any right of action based upon any provision of this Agreement.

19. Miscellaneous.

19.1 Notices. All notices which are allowed or required to be given hereunder shall be in writing and (1) shall be deemed given and received when personally delivered or (2) shall be deemed given when the same are deposited in the United States mail, with postage prepaid, to be sent by registered or certified mail or overnight mail service, addressed to the applicable designated person by one party to the other in writing, and shall be deemed received on the second business day after such mailing.

If to City:	City of Oxnard 300 West Third Street Oxnard, California 93030 Attention: City Manager Tel. No.: (805) 385 7430 Fax No.: (805) 385 7595
with a copy to:	City of Oxnard 214 South C Street Oxnard, California 93030 Attention: Development Services Director Tel. No.: (805) 385 7877 Fax No.: (805) 385 7854
	City of Oxnard 300 West Third Street Oxnard, California 93030 Attention: City Attorney Tel. No.: (805) 385 7483 Fax No.: (805) 385 7423
	City of Oxnard 214 South C Street Oxnard, California 93030 Attention: Planning Manager Tel. No.: (805) 385 7863 Fax No.: (805) 385 7417
If to Developer:	Sakioka Farms 3183-A Airway Ave., Suite 2 Costa Mesa, California 92626 Attention: Jeffrey Littell Tel. No.: (714) 434-9318 Fax No.: (714) 434-9054
	AMS Craig, LLC 1451 N. Rice Avenue, Suite E Oxnard, CA 93030 Attention: Craig Kaihara Tel: No.: (805) 278-1703 Fax No.: (805) 278-1768
with a copy to:	Palmieri, Tyler, Wiener, Wilhelm & Waldron LLP 2603 Main Street, Suite 1300

Irvine, California 92614
Attention: Cynthia M. Wolcott, Esq.
Tel. No.: (949) 851-9400
Fax No.: (949) 851-1554

19.2 Severability. If any part of this Agreement is declared invalid for any reason, such invalidity shall not affect the validity of the remainder of the Agreement. The other parts of this Agreement shall remain in effect as if this Agreement had been executed without the invalid part. The City and Developer intend and desire that the remaining parts of this Agreement continue to be effective without any part or parts that have been declared invalid.

19.3 Entire Agreement; Conflicts. This Agreement represents the entire agreement between the City and Developer with respect to the subject matter hereof and supercedes all prior agreements and understandings, whether oral or written, between the City and Developer with respect to the matters contained in this Agreement. Should any or all of the provisions of this Agreement be found to be in conflict with any other provision or provisions found in the Applicable Rules or the Subsequent Applicable Rules, then the provisions of this Agreement shall govern and prevail.

19.4 Further Assurances. The City and Developer agree to perform, from time to time, such further acts and to execute and deliver such further instruments reasonably necessary to effect the intents and purposes of this Agreement, provided that the intended obligations of the City and Developer are not thereby modified.

19.5 Negation of Agency. The City and Developer acknowledge that, in entering into and performing under this Agreement, each is acting as an independent entity and not as an agent of the other in any respect. Nothing contained herein or in any document executed in connection herewith shall be construed as making the City and Developer joint venturers, partners or employer/employee.

19.6 Attorneys' Fees. In the event of any claim, dispute or controversy arising out of or relating to this Agreement, including an action for declaratory relief, the prevailing party in such action or proceeding shall be entitled to recover its court costs and reasonable out of pocket expenses not limited to taxable costs, including, but not limited to telephone calls, photocopies, expert witness, travel, and reasonable attorneys' fees and costs to be fixed by the court. Such recovery shall include, but not limited to, court costs, out of pocket expenses and attorneys' fees on appeal, if any. The court shall determine who is the "prevailing party," whether or not the dispute or controversy proceeds to final judgment. If the City or Developer is reasonably required to incur such out of pocket expenses and attorneys' fees as a result of any claim arising out of or concerning this Agreement or any right or obligation derived hereunder, then the prevailing party shall be entitled to recover such reasonable out of pocket expenses and attorneys' fees whether or not an action is filed.

19.7 Waiver. No waiver of any provision of this Agreement shall be effective unless in writing and signed by a duly authorized representative of the party against whom enforcement of a waiver is sought.

19.8 Force Majeure. In the event of changed conditions, litigation filed to challenge the Project Approvals, changes in local, state or federal laws or regulations, floods, delays due to strikes, inability to obtain materials, civil commotion, fire, acts of God, or other circumstances which substantially interfere with carrying out the Project or with the ability of either the City or Developer to perform its obligations under this Agreement, and which are not due to actions on the part of Developer or the City and are beyond the reasonable control of Developer and the City, Developer and the City agree to bargain in good faith to modify this Agreement as may be necessary to achieve the goals and preserve the original intent of this Agreement.

19.9 Paragraph Headings. The paragraph headings contained in this Agreement are for convenience and identification only and shall not be deemed to limit or define the contents to which they relate.

19.10 Time of Essence. Time is of the essence of this Agreement, and all performances required hereunder shall be completed within the time periods specified. Any failure of performance shall be deemed as a material breach of this Agreement.

19.11 Counterparts. This Agreement and any modifications hereto may be executed in any number of counterparts with the same force and effect as if executed in the form of a single document.

19.12 Indemnification. Developer agrees, as a condition of approval of this Agreement, to indemnify, defend and hold harmless at Developer's expense, the City, the City Council, and the City's agents, officers and employees (collectively, the "Indemnified Parties") from and against any claim, action or proceeding commenced within the applicable time period, to attack, review, set aside, void or annul the approval of this Agreement, the Specific Plan or EIR or to determine the legality or validity of any provision hereof or obligation contained herein, with the exception of any claim, action or proceeding arising from or caused by the arbitrary or capricious conduct or the negligence or willful misconduct of the Indemnified Parties.

The City shall promptly notify Developer of any such claim, action or proceeding of which the City receives notice, and the City will cooperate fully with Developer in the defense thereof. Developer shall reimburse the City for any court costs and reasonable attorneys' fees which the City may be required to pay as a result of any such claim, action or proceeding. The City may, in its sole discretion, participate in the defense of any such claim, action or proceeding; provided, however, that the settlement of any dispute shall be determined by Developer in its sole discretion.

19.13 Agreement Regarding Fee Credits. To the extent Developer wishes to transfer City Fee Credits to a third party, Developer shall present to the City executed agreements delineating the right of such third party to use such credits.

19.14 Reference of California Law. Unless expressly stated to the contrary, all references to statutes herein are to the California codes.

Signatures on Following Page

IN WITNESS WHEREOF, the City and Developer hereto have each executed this Agreement as of the date first written above.

Developer: SAKIOKA FARMS

By: MARJACK, LLC,
a California limited liability company

By: ______________________________

Phyllis T. Sakioka, Manager

By: ______________________________

Roy T. Sakioka, Manager

By: PHYLROY, LLC,
a California limited liability company

By: ______________________________

Phyllis T. Sakioka, Manager

By: ______________________________

Roy T. Sakioka, Manager

AMS CRAIG, LLC, a Delaware limited liability company

By: ______________________________

Craig Kaihara, Manager

City: CITY OF OXNARD, a municipal corporation of the State of California

By:

Dr. Thomas E. Holden, Mayor

ATTEST:

Daniel Martinez, City Clerk

APPROVED AS TO FORM:

Alan Holmberg, City Attorney

EXHIBIT A

LEGAL DESCRIPTION OF PROPERTY

DESCRIPTION

Exhibit A

The land referred to herein is situated in the County of Ventura, State of California, and is described as follows:

Parcel "C", and that portion of Parcel "D" of the resubdivision of the Subdivisions 45, 46 and part of 49, Rancho El Rio de Santa Clara o'La Colonia, in the City of Oxnard, County of Ventura, State of California, as per map filed in Book 2, Page 43 of Record of Surveys in the office of the County Recorder of said County, described as a whole as follows:

Beginning at a point in the Easterly line of Rice Road, 50 feet wide, as shown on said map at the Southwesterly terminus of that certain course in the Southerly boundary of the State Highway recited as "N. 70° 33' 43" E., 157.48 feet", in the deed to the State of California, recorded December 23, 1963 in Book 2450, Page 16 of Official Records as Document No. 76087, in said office of the County Recorder; thence along said certain course,

1st: North 69° 17' 35" East 157.48 feet; thence continuing along the Southerly boundary of the State Highway by the following 13 courses,

2nd: North 76° 49' 51" East 161.22 feet; thence,

3rd: North 89° 48' 08" East 204.28 feet; thence,

4th: South 88° 24' 53" East 711.16 feet, more or less, to the intersection with a line which is parallel with and distant Southerly 12.00 feet measured at right angles from the 13th course recited as "N. 86° 23' 35" W., 1842.44 feet", in the deed to the State of California recorded December 7, 1953 as Document No. 31569 in Book 1172, Page 229 of Official Records; thence along said parallel line and Easterly prolongation thereof,

5th: South 87° 07' 50" East 1422.22 feet more or less, to the intersection with the Westerly prolongation of a line which is parallel with and distant Southerly 12.00 feet, measured at right angles, from the 7th course recited as "N. 89° 27' 13" W., 721.73, feet", in said last mentioned deed; thence along said prolongation and parallel line,

6th: North 89° 48' 42" East 812.99 feet; thence,

7th: South 85° 07' 07" East 672.25 feet; thence,

8th: South 63° 48' 56" East 411.90 feet; thence,

9th: South 1° 02' 37" West 134.02 feet; thence,

10th: South 89° 48' 42" East 121.00 feet; thence,

11th: North 69° 42' 17" East 185.75 feet; thence,

12th: North 53° 11' 34" East 365.60 feet; thence,

DESCRIPTION

Exhibit A

13th: North 69° 22' 05" East 75.96 feet; thence,

14th: South 89° 48' 42" feet East 110.23 feet, more or less, to the Easterly line of said Parcel "D"; thence along said Easterly line to and along the Easterly line of said Parcel "C",

15th: South 0° 00' 25" East 3535.29 feet, more or less, to the Southeasterly corner of said Parcel "C"; thence along the Southerly line of said Parcel "C",

16th: South 89° 47' 44" West 5258.60 feet to said Easterly line of Rice Road; thence along said Easterly line,

17th: North 0° 01' 15" West 3595.90 feet to the point of beginning.

EXCEPT that portion conveyed to the City of Oxnard in deed recorded April 29, 1988 as Document No. 88-58919.

ALSO EXCEPT all oil, gas, petroleum, hydrocarbons and mineral substances lying in, on, or under said land, but without the right to enter upon and use the surface and the subsurface of said land to a depth of 500 feet below the surface except upon those certain drill site easements and easements for ingress and egress and for utility and pipeline purposes as particularly described in those certain agreements executed by Frances M. Conway, et al., and by Xerox Corporation recorded December 22, 1969 as Document Nos. 66767, 66768, 66769, 66770, 66771 and 66772.

EXHIBIT B

MASTER PLANNED FACILITIES

EXHIBIT C

NIAD IN LIEU CREDITS

CITY OF OXNARD – ASSESSMENT DISTRICT NO. 86-3

NORTHEAST INDUSTRIAL ASSESSMENT DISTRICT
IN-LIEU CREDITS

JUN 28, 1993

TRACT NO.	ORIGINAL OWNER OR DEVELOPER	CURRENT DEVELOPER, OWNER OR ASSESSOR'S PAR. #	ORIGINAL TRACT ACREAGE	TOTAL ASSESSMENT SERIES "A" *	CURRENT TRACT ACREAGE	WATER ASSESSMENT	PERCENT	WATER IN-LIEU CREDIT	SEWER ASSESSMENT	PERCENT	SEWER IN-LIEU CREDIT	STREET ASSESSMENT	PERCENT	STREET IN-LIEU CREDIT	TOTAL IN-LIEU CREDIT
	SAKIOKA	216-030-06,7,8,10	431.48	$7,340,472.00	427.23	$676,619.00	80.85%	$547,046.46	$1,033,815.00	67.60%	$698,858.94	$2,856,002.00	53.09%	$1,516,251.46	$2,762,156.86

* INFRASTRUCTURE IMPROVEMENTS ONLY

EXHIBIT D

DEL NORTE/101 INTERCHANGE DEDICATION

EXHIBIT E

CITY COUNCIL OF THE CITY OF OXNARD
RESOLUTION NO. 10,272

CITY COUNCIL OF THE CITY OF OXNARD

RESOLUTION NO. 10,272

A RESOLUTION OF THE CITY OF OXNARD ESTABLISHING A POLICY CONCERNING CREDIT IN LIEU OF PAYMENT FOR FACILITIES FEES AND REIMBURSEMENT FOR CONSTRUCTION OF PLANNED FACILITIES FOR DRAINAGE, WASTEWATER, TRAFFIC CIRCULATION, AND WATER SYSTEMS.

WHEREAS, Division 1 of Article V-A of Chapter 27 of the Oxnard City Code provides that a person may receive credit in lieu of payment of facilities fees; and

WHEREAS, Division 1 of Article V of Chapter 27 of the Oxnard City Code provides that a subdivider required to install improvements containing supplemental capacity shall be reimbursed for that portion of the cost of the improvements, including an amount attributable to interest, in excess of the construction required for the subdivision;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF OXNARD RESOLVES AS FOLLOWS:

1. Credit in lieu of payment of facilities fees and cash reimbursements provided herein shall be available to persons constructing drainage, wastewater conveyance, wastewater treatment, traffic circulation, and water facilities as a condition of development or subdivision, which are consistent with the City's master plans.

2. For the purposes of this resolution, the word "facilities" and the phrase "type of infrastructure" shall mean drainage, wastewater conveyance, wastewater treatment, traffic circulation, or water facilities constructed within the City.

3. When a person is required by the City to construct facilities consistent with the City's master plans, the cost of such facilities shall be either credited to such person in lieu of the payment of facilities fees or reimbursed to such person by the City.

4. The amount of the credit in lieu of payment of facilities fees shall be limited to the person's actual engineering and construction costs to construct the facilities and shall not exceed the amount of the estimated facilities fees. Facilities fees estimates shall be determined by the City by assuming the highest and best use of the parcels under the approved zoning at the time of subdivision map recordations. The actual engineering and

construction costs to construct the facilities shall be determined by the City based on and limited to unit costs and items established and revised from time to time by the Public Works Director.

5. A person who provides master planned facilities containing supplemental capacity, as provided in Section 27-79.1 of the Oxnard City Code, will be eligible for reimbursement based on the cost of the facilities used in calculating the facility fees in effect at the time of related map recordation;provided, however, that if the development is subject to a development agreement limiting or freezing facility fees, the person will be eligible for reimbursement based on the cost of the facilities used in calculating the facility fees in effect at the time of the development agreement, or as otherwise provided in the development agreement.

6. The person who provided the master planned facilities for which the credit was earned may use such credits to offset the amount of the facilities fees required to be paid by such person when such person receives a building permit. The credit may be used to offset facilities fees up to the full amount of each fee on parcels for which building permits are received by such person, but only with the project for which the facilities were provided, until the credits are exhausted.

7. If the master planned facilities were paid for from the proceeds of a special financing district formed after the date of adoption of Resolution No. 9797, September 19, 1989, such as an Assessment District or a Community Facilities District, then reimbursements or credits will be made pursuant to Resolution No. 9797 as follows:

(a) Any reimbursement will paid to the bond redemption fund.

(b) Any in-lieu of fee credit will be granted to the properties which are assessed or taxed through the special financing district and will be applied only to future fees for those properties.

8. Whenever facilities fees are paid by others than the person with the credit for that subdivision, the City shall pay to such person with the credit the amount of the facilities fees paid until the credit is exhausted.

9. Any credit in lieu of payment of facilities fees or payment by the City pursuant to paragraph seven, shall apply only to each specific type of infrastructure fee, so that the cost of one type of conditioned infrastructure shall not be accepted as credit in lieu of payment of the fee for another type of infrastructure. For example, the cost of wastewater conveyance facilities shall be credited only to future wastewater conveyance facility fees, and not to wastewater treatment, water, drainage, or traffic circulation facilities fees.

10. If a person sells all the remaining undeveloped parcels of a subdivision for which that person earned a credit, such person may assign those credits to the buyer of the parcels by providing to the Public Works Director a written notice of the assignment at the time the sale is completed.

11. Any person required to construct master planned facilities shall be reimbursed by the City for the actual engineering and construction costs in excess of the estimated facilities fees, as described above. The City shall usually spread reimbursements over a period of one to ten years, with each annual disbursement being limited to the greater of twenty thousand dollars ($20,000) or ten per cent (10%) of the original reimbursement amount. The City will pay interest on outstanding balances during a fiscal year at a rate determined by the Finance and Management Services Director based on the average for the fiscal year of the rates paid by the Local Agency Investment Fund.

12. When a person is required to provide supplement capacity in non-master planned facilities as part of the subdivision conditioning process, the City shall enter into an agreement with such person to provide reimbursement pursuant to Section 27-79.1 of the Oxnard City Code.

13. No credit or reimbursement shall be made unless a written request therefore is made to the Director of Public Works.

14. This resolution shall become effective on December 23, 1991.

15. Any person who owned a parcel on June 7, 1988, within a subdivision with a final map recorded on or before June 7, 1988, shall retain any credits in the amount that would have been assigned to the parcel under the policy in effect prior to June 7, 1988. After June 7, 1988, if such parcel is sold, the credit shall be retained by the owner as of June 7, 1988.

16. Resolution No. 9666, adopted March 28, 1989, is hereby repealed effective on the date this resolution becomes effective.

PASSED AND ADOPTED this 8th day of October, 1991, by the following vote:

AYES: Councilmembers Takasugi, Furr, Lopez, Maron

NOES: None

ABSENT: None

ABSTAIN: Councilman Plisky

Nao Takasugi
NAO TAKASUGI, MAYOR

ATTEST:

Mabi Plisky
MABI PLISKY, CITY CLERK

APPROVED AS TO FORM:

Paula Kimbrell for
GARY L. GILLIG, CITY ATTORNEY

Appendix M
Biology Impacts Document

State of California
The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
Biogeographic Data Branch
California Natural Diversity Database

SPECIAL ANIMALS (883 taxa)
July 2009

The California Natural Diversity Database (CNDDB) is a continually refined and updated, computerized inventory of location information on the most rare animals, plants, and natural communities in California. The blueprint used to set up the CNDDB was developed by The Nature Conservancy (TNC) in the early 1970's. The California program was started in 1979. TNC has helped to set up similar programs in all 50 states and a number of foreign countries. Collectively these programs are known as the Natural Heritage Network. The "Heritage Methodology" used by all of these programs sets the standards on the information we gather and the procedures we use. In 1999 TNC and the Natural Heritage Network jointly established an independent organization, the Association for Biodiversity Information (ABI), to achieve their mutual goal of using the wealth of biodiversity information in the Heritage Network to support conservation efforts. In November 2001 ABI changed its name to NatureServe. More information the Natural Heritage Network is available on the NatureServe web site: **http://www.natureserve.org**.

"Special Animals" is a general term that refers to all of the taxa the CNDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of "species at risk" or "special status species". The Department of Fish and Game considers the taxa on this list to be those of greatest conservation need. The species on this list were used in the development of California's Wildlife Action Plan (available at: **http://www.dfg.ca.gov/wildlife/WAP**)

The species on this list generally fall into one or more of the following categories:

- Officially listed or proposed for listing under the State and/or Federal Endangered Species Acts.
- State or Federal candidate for possible listing.
- Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the California Environmental Quality Act Guidelines. (More information on CEQA is available at **http://ceres.ca.gov/topic/env_law/ceqa/guidelines/**
- Taxa considered by the Department to be a Species of Special Concern (SSC)
- Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring.
- Populations in California that may be on the periphery of a taxon's range, but are threatened with extirpation in California.

- Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, vernal pools, etc.)
- Taxa designated as a special status, sensitive, or declining species by other state or federal agencies, or non-governmental organization (NGO).

Taxa marked with a "+" to the left of the scientific name are those for which there is location information in the CNDDB Geographic Information System (GIS), as of the date of this list.

Taxa with a "Yes" in the "Notes" column have more information in an end note at the back of the list.

Additional information on the CNDDB is available on the Department of Fish and Game web site at: **http://www.dfg.ca.gov/biogeodata/cnddb** .
Additional information on other Department resource management programs is available at: **http://www.dfg.ca.gov/about/resource-mgmt.html .** The Species Conservation & Recovery Program page at: **http://www.dfg.ca.gov/wildlife/species** is a particularly rich source of information including such topics as "Survey Standards and Guidelines", "Threats to Wildlife", "Habitats", and "Plant and Animal Pictures".

What is an Element Occurrence?

An element Occurrence (EO) is a location where the element (species) has been documented to occur. **An EO is not a population**, but it may indicate that a population is present in that area; and a single population may be represented by more than one EO. An EO is based upon the source documents available to us at the time it was mapped. Both the mapped feature and the text portion of EO's are updated as new information becomes available.

Element Occurrence (EO) Definition:

The EO definition refers to the types of information we map. For most animal taxa, the CNDDB is interested in information that indicates the presence of a resident population. For many birds, however, the CNDDB tracks only nesting locations, (those species are so indicated on the list). It is not necessary to actually locate the nest to confirm breeding status. Any indication of breeding (territorial males, adults carrying nest material, adults carrying food, the presence of newly fledged young, etc.) is acceptable evidence of nesting. For other taxa where we track only a certain part of their range or life history, the area or life stage is indicated on the list.

Mapping Conventions:

Our information is mapped as precisely as possible, based upon the source materials used to map the element occurrence (EO). More vague location information is mapped with the larger circular features and more precise location information is mapped with 80m radius circles or polygon features. Generally, observations/collections within ¼ mile, within continuous habitat, are combined into a single element occurrence (EO). However, there are exceptions such as nest trees for Swainson's hawk, where each known nest tree is mapped.

Taxonomic References and Sources of Additional Information:

We follow the most current published taxonomy.

For butterflies we followed the taxonomy used by NatureServe:
http://www.natureserve.org/explorer/

For fish we used:

Moyle, P. B. 2002. Inland Fishes of California. University of California Press.

Nelson, J.S., E.J. Crossman, H. Espinosa-Perea, L.T. Findley, C.R. Gilbert, R. N. Lea, and J. D. Williams. 2004. Common and scientific names of fishes from the United States, Canada, and Mexico. American Fisheries Society, Special Publication 29, Bethesda, Maryland. 386 pp.

For reptiles and amphibians, most changes are explained and referenced on the Center for North American Herpetology web site: **http://www.cnah.org**. In addition, we made taxonomic changes based on the following papers:

Crother, B. I., J. Boundy, J. A. Campbell, K. de Quieroz, D. Frost, D. M. Green, R. Highton, J. B. Iverson, R. W. McDiarmid, P. A. Meylan, T. W. Reeder, M. E. Seidel, J. W. Sites, Jr., S. G. Tilley, and D. B. Wake. 2003. Scientific and Standard English Names of Amphibians, and Reptiles of North American North of Mexico: Update. Herpetological Review 34:198-203.

Feldman, C. R. & J. F. Parham. 2002. Molecular phylogenetics of emydine turtles: Taxonomic revision and the evolution of shell kinesis. Molecular Phylogenetics and Evolution 22(3): 388-398.

Goebel, A. M., T. A. Ranker, P. S. Corn, & R. G. Olmstead. 2009. Mitochondrial DNA evolution in the *Anaxyrus boreas* species group. Molecular Phylogenetics and Evolution 50(2009) 209-225.

Hollingsworth, B. D. 1998. The systematics of chuckwallas (SAUROMALUS) with a phylogenetic analysis of other iguanid lizards. Herpetological Monographs (12):38-191.

Holman, J.A. & U. Fritz. 2001. A new emydine species from the Medial Miocene (Barstovian) of Nebraska, USA with a new generic arrangement for the species of *Clemmys* sensu McDowell (1964) (Reptilia: Testudines: Emydidae). Zoologische Abhandlungen Staatliches Museum fur Tiekunde Dresden 51(19)321-344.

Mead, Louise S., David R. Clayton, Richard S. Nauman, Deanna H. Olsen, & Michael E. Pfrender. 2005. Newly discovered populations of salamanders from Siskiyou County, California, represent a species distinct from Plethodon stormi. Herpetologica 61(2): 158-77.

Reeder, T., C. J Cole & H. C. Dessauer. 2002. Phylogenetic Relationships of Whiptail Lizards of the Genus Cnemidophorus (Squamata: Teiidae): A Test of monophyly, reevaluation of karyotypic evolution, and review of hybrid origins. American Museum Novitates No. 3365. 61pp.

Shaffer, H. Bradley, G. M. Fellers, S. Randal Voss, J. C. Oliver & Gregory B. Pauly. 2004. Species boundaries, phylography and conservation genetics of the red-legged frog (*Rana aurora/draytonii*) complex. Molecular Ecology (2004) 13, 2667-2677.

Stephens, Patrick R. and John J. Wiens. 2003, Ecological Diversification and Phylogeny of Emydid Turtles. Biological Journal of the Linnean Society 79: 577-610.

Vredenburg, V.T., R. Bingham, R. Knapp, J.A.T. Morgan, C. Moritz & D. Wake. 2007. Concordant molecular and phenotypic data delineate new taxonomy and conservation priorities for the endangered mountain yellow-legged frog. Journal of Zoology 271 (2007) 361-374.

For birds we made taxonomic changes based on the following papers:

American Ornithologists' Union (AOU). 1998. Check-list of North American birds. Seventh edition. American Ornithologists' Union, Washington, D.C. 829 pp.

Banks, R. C. , R. T. Chesser, C.Cicero, J. L. Dunn, A. W. Kratter, I. J. Lovette, P. C. Rasmussen, J. V. Remsen Jr., J. D. Rising, D. F. Stotz, & K. Winker. 2008. Forty-ninth Supplement to the American Ornithologists' Union *Check-list of North American Birds.* The Auk 125(3):758-768.

Barrowclough, Geroge F., Jeff G. Groth, Lisa A. Mertz and R. J. Gutierrez. 2004. Phylogeographic structure, gene flow and species status in blue grouse (*Dendragapus obscurus*). Molecular Ecology (2004) 13, 1911-1922.

Bridge, E. S., A. W. Jones, and A. J. Baker. 2005. A Phylogenetic Framework for the Terns (Sternini) Inferred from mtDNA sequences: Implications for Taxonomy and Plumage Evolution. Molecular Phylogenetis and Evolution 35:459-469.

Patten, M. A. 2001. The roles of habitat and signaling in speciation: Evidence from a contact zone of two song sparrow (Melospiza melodia) subspecies. Ph.D. dissertation, Univ. Calif., Riverside.

For mammals we made taxonomic changes based on the following papers:

Baker, R. J., L. C. Bradley, R. D. Bradley, J. W. Dragoo, M. D. Engstrom, R. Hoffman, C. A. Jones, F. Reid, D. W. Rice, & C. Jones. 2003. Revised Checklist of North American Mammals North of Mexico, 2003. Museum of Texas Tech University Occasional Papers 229:1-23.

Bean, C. 2003. An Assessment of the Endangerment Status of the Santa Cruz Kangaroo Rat. MS Thesis, San Jose State University.

Best, T. L., R. K. Chesser, D. A. McCullough, & G. D. Baumgardner. 1996. Genetic and Morphometric Variation in Kangaroo Rats, Genus *Dipodomys*, from Coastal California. Journal of Mammalogy 77(3):785-800.

Jones, C. A. & C. N. Baxter. 2004. *Thomomys bottae*. Mammalian Species 742:1-14.

Matocq, M. D. 2002. Morphological and Molecular Analysis of a Contact Zone in the *Neotoma fuscipes* complex. Journal of Mammalogy 83(3):866-883.

Patton, J. L. & M. A. Smith. 1990. The Evolutionary Dynamics of the Pocket Gopher *Thomomys bottae*, with Emphasis on California Populations. University of California Publications in Zoology 123:1-161.

Wehausen, John D., Bleich, Vernon C., and Ramey Rob R. II. 2005. Correct Nomenclature for Sierra Nevada Bighorn Sheep. Calif Fish and Game 91(3):216-218.

CNDDB CONSERVATION STATUS RANKS:

The CNDDB ranking codes are part of the "Heritage Methodology". It is a shorthand formula that provides information about the status of a taxon, both throughout its entire range and within California. We use the best information available to assign these ranks and they are changed and refined as new information becomes available. More detailed information about the conservation status ranking system can be found at: **http://www.natureserve.org/explorer/ranking.htm**

CALIFORNIA ENDANGERED SPECIES ACT (CESA) LISTING CODES: The listing status of each species is current as of the date of this list. The most current changes in listing status will be found in the list of "Endangered and Threatened Animals of California", which the CNDDB updates and issues quarterly (January, April, July, & October).

SE	State-listed as Endangered
ST	State-listed as Threatened
SCE	State candidate for listing as Endangered
SCT	State candidate for listing as Threatened
SCD	State candidate for delisting

FEDERAL ENDANGERED SPECIES ACT (ESA) LISTING CODES: The listing status is current as of the date of this list. The most current changes in listing status will be found in the list of "Endangered and Threatened Animals of California", which the CNDDB updates and issues quarterly (January, April, July, & October). Federal listing actions are also available at: **http://www.epa.gov/fedrgstr/EPA-SPECIES/index.html.** After careful consideration we have removed the USFWS Federal Species of Concern (FSC) designation from this list. The Federal Species of Concern list was not maintained on a statewide basis. The Sacramento field office, with jurisdiction over the central portion of California, maintained a list, but the Ventura, Carlsbad and Arcata offices did not. Therefore, species in the northern and southern parts of the state were not considered. Information on the list maintained by the Sacramento field office is available at: **http://sacramento.fws.gov/es/spp_concern.htm**

FE Federally listed as Endangered
FT Federally listed as Threatened
FPE Federally proposed for listing as Endangered
FPT Federally proposed for listing as Threatened
FPD Federally proposed for delisting
FC Federal candidate species (former Category 1 candidates)
SC Species of Concern – list established by National Marine Fisheries Service (NMFS) effective 15 April 2004

OTHER STATUS CODES:

IUCN - The World Conservation Union, through its Species Survival Commission (SSC) assess, on a global scale, the conservation status of species, subspecies, varieties and even selected subpopulations in order to highlight taxa threatened with extinction, and therefore promote their conservation. The SSC is firmly committed to providing the world with the most objective, scientifically-based information on the current status of globally threatened biodiversity. The taxa assessed for the IUCN Red List have been evaluated using the IUCN Red List Categories and Criteria **http://www.iucnredlist.org/static/categories_criteria**. Detailed information on the IUCN and the Red List is available at: **http://www.redlist.org/.**

American Bird Conservancy: United States WatchList of Birds of Conservation Concern: The United States *WatchList* is a joint project between the American Bird Conservancy and the National Audubon Society. It reflects a comprehensive analysis of all the bird species in the United States. It reveals those in greatest need of immediate conservation attention to survive a convergence of environmental challenges, including habitat loss, invasive species, and global warming. The list builds on the species assessments conducted for many years by Partners in Flight (PIF) for land birds. It uses those same PIF standards but it is expanded to cover all bird species, not just land birds. The list is based on the latest available research and assessments from the bird conservation community, along with data from the Christmas Bird Count and Breeding Bird Survey. More information is available at: **http://www.abcbirds.org/abcprograms/science/watchlist/index.html**

AFS: Designations for freshwater and diadromous species were taken from the paper: Jelks, H.L., S.J. Walsh, N.M. Burkhead, S.Contreras-Balderas, E. Díaz-Pardo, D.A. Hendrickson, J. Lyons, N.E. Mandrak, F. McCormick, J.S. Nelson, S.P. Platania, B.A. Porter, C.B. Renaud, J. J. Schmitter-Soto, E.B. Taylor, and M.L. Warren, Jr. 2008. Conservation status of imperiled North American freshwater and diadromous fishes. Fisheries 33(8):372-407. Available at: **http://www.fisheries.org/afs/docs/fisheries/fisheries_3308.pdf** . Designations for marine and estuarine species were taken from the paper: Musick, J.T. et al. 2000. "Marine, Estuarine, and Diadromous Fish Stocks at Risk of Extinction in North America (Exclusive of Pacific Salmonids). Fisheries 25(11):6-30. Available at: **http://afsjournals.org/doi/pdf/10.1577/1548-8446(2000)025%3C0006%3AMEADFS%3E2.0.CO%3B2**

Audubon: WatchList: The Audubon WatchList has been incorporated into the **American Bird Conservancy United States WatchList of Birds of Conservation Concern** and no longer has a separate designation.

BLM: Sensitive: Bureau of Land Management. BLM Manual §6840 defines sensitive species as"…those species that are (1) under status review by the FWS/NMFS; or (2) whose numbers are declining so rapidly that Federal listing may become necessary, or (3) with typically small and widely dispersed populations; or (4) those inhabiting ecological refugia or other specialized or unique habitats." Existing California-BLM policy concerning the designation of sensitive species identifies two conditions that must be met before a species may be considered as BLM sensitive: (1) a significant population of the species must occur on BLM-administered lands, and (2) the potential must exist for improvement of the species' condition through BLM management. The "Sensitive Species" designation is not meant to include federally listed species, proposed species, candidate species or State-listed species. It is BLM policy to provide sensitive species with the same level of protection that is given federal candidate species. The list is available at:
http://www.blm.gov/ca/pdfs/pa_pdfs/biology_pdfs/SensitiveAnimals.pdf

CDF: Sensitive: California Department of Forestry and Fire Protection. The Board of Forestry classifies as "sensitive species" those species that warrant special protection during timber operations. The list of "sensitive species" is given in §895.1 (Definitions) of the California Forest Practice Rules. The 2009 Forest Practice Rules are available at:
http://www.fire.ca.gov/resource_mgt/downloads/2009_Forest_Practice_Rules_and_Act.pdf

DFG: SSC: California Species of Special Concern. It is the goal and responsibility of the Department of Fish and Game to maintain viable populations of all native species. To this end, the Department has designated certain vertebrate species as "Species of Special Concern" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating species as "Species of Special Concern" is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long term viability. Not all "Species of Special Concern" have declined equally; some species may be just starting to decline, while others may have already reached the point where they meet the criteria for listing as a "Threatened" or "Endangered" species under the State and/or Federal Endangered Species Acts. More information is available on the Department's web site at: **http://www.dfg.ca.gov/wildlife/species/ssc/index.html** . The reports for fish and amphibians and reptiles are available on-line.

Fish: **http://www.dfg.ca.gov/habcon/info/fish_ssc.pdf** .

Amphibians & Reptiles: **http://www.dfg.ca.gov/habcon/info/herp_ssc.pdf** .

A new *California Bird Species of Special Concern* report was completed in 2008. More information is available at: **http://www.dfg.ca.gov/wildlife/species/ssc/birds.html .** A new category of **"Taxa to Watch"** was created in the new *California Bird Species of Special Concern* report. The birds on this watch list are 1) not on the current Special Concern list but were on previous lists and they have not been state listed under CESA; 2) were previously state or federally listed and now are on neither list; or 3) are on the list of "fully protected" species. More information and brief accounts for each species is available in the report.

Information on Mammal Species of Special Concern is available at: **http://www.dfg.ca.gov/wildlife/species/ssc/mammals.html .**

DFG: Fully Protected: The classification of Fully Protected was the State's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds and mammals. Most of the species on these lists have subsequently been listed under the state and/or federal endangered species acts; white-tailed kite, golden eagle, trumpeter swan, northern elephant seal and ring-tailed cat are the exceptions. The white-tailed kite and the golden eagle are tracked in the CNDDB; the trumpeter swan, northern elephant seal and ring-tailed cat are not.

The Fish and Game Code sections dealing with Fully Protected species state that these species "....may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected" species, although take may be authorized for necessary scientific research. This language arguably makes the "Fully Protected" designation the strongest and most restrictive regarding the "take" of these species. In 2003 the code sections dealing with fully protected species were amended to allow the Department to authorize take resulting from recovery activities for state-listed species.

More information on Fully Protected species and the take provisions can be found in the Fish and Game Code, (birds at §3511, mammals at §4700, reptiles and amphibians at §5050, and fish at §5515). Additional information on Fully Protected fish can be found in the California Code of Regulations, Title 14, Division 1, Subdivision 1, Chapter 2, Article 4, §5.93. The category of Protected Amphibians and Reptiles in Title 14 has been repealed.

The Fish and Game Code is available online at: **http://www.leginfo.ca.gov/cgi-bin/calawquery?codesection=fgc&codebody=&hits=20** . Title 14 of the California Code of Regulations is available at: **http://weblinks.westlaw.com/toc/default.aspx?Abbr=ca-adc&AP=CAT14&ItemKey=CAT14&RP=%2Ftoc%2Fdefault.wl&Service=TOC&RS=WEBL9.01&VR=2.0&SPa=CCR-1000&fragment#CAT14**

FS: Sensitive: USDA Forest Service defines sensitive species as those plant and animal species identified by a regional forester that are not listed or proposed for listing under the federal Endangered Species Act for which population viability is a concern, as evidenced by significant current or predicted downward trends in population numbers or density, or significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution. Regional Foresters shall identify sensitive species occurring within the region. California is the Pacific Southwest Region (Region 5).The list of sensitive animals for Region 5 is undergoing revision with an anticipated completion date of spring 2009. The sensitive designation on this list is based on the previous list. More information is available at: **http://www.fs.fed.us/r5/projects/sensitive-species/**

FWS: BCC: Fish and Wildlife Service: Birds of Conservation Concern: The goal of the *Birds of Conservation Concern 2002* report is to accurately identify the migratory and nonmigratory bird species (beyond those already designated as Federally threatened or endangered) that represent our highest conservation priorities and draw attention to species in need of conservation action. We hope, that by focusing attention on these highest priority species, this report will promote greater study and protection of the habitats and ecological communities upon which these species depend, thereby ensuring the future of healthy avian populations and communities. This report is available at:
http://www.fws.gov/migratorybirds/reports/BCC2002.pdf

Marine Mammal Commission: Marine Mammal Species of Special Concern: Section 202 of the Marine Mammal Protection Act directs the Marine Mammal Commission, in consultation with its Committee of Scientific Advisors, to make recommendations to the Department of Commerce, the Department of the Interior, and other federal agencies on research and management actions needed to conserve species of marine mammals. To meet this charge, the Commission devotes special attention to particular species and populations that are vulnerable to various types of human-related activities, impacts, and contaminants. Such species may include marine mammals listed as endangered or threatened under the Endangered Species Act or as depleted under the Marine Mammal Protection Act. In addition, the Commission often directs special attention to other species or populations of marine mammals not so listed whenever special conservation challenges arise that may affect them. More information on the Marine Mammal Protection Act and the Species of Special Concern list is available at: **http://www.mmc.gov/species**

WBWG: High Priority: The Western Bat Working Group is comprised of agencies, organizations and individuals interested in bat research, management and conservation from the 13 western states and provinces. The goals are (1) to facilitate communication among interested parties and reduce risks of species decline or extinction; (2) to provide a mechanism by which current information on bat ecology, distribution and research techniques can be readily accessed; and (3) to develop a forum to discuss conservation strategies, provide technical assistance and encourage education programs. Species designated as "High Priority" are imperiled or are at high risk of imperilment based on available information on distribution, status, ecology and known threats. More information is available at: **http://www.wbwg.org**.

Xerces Society: Red list: The Xerces Society is an international non-profit organization dedicated to protecting biological diversity through invertebrate conservation. The Society advocates for invertebrates and their habitats by working with scientists, land managers, educators, and citizens on conservation and education projects. Their core programs focus on endangered species, native pollinators, and watershed health. More information on the Red list is available at: **http://www.xerces.org/**

Table of status code abbreviations

Organization	Abbreviation
American Bird Conservancy - U. S. WatchList of Birds of Conservation Concern	ABC_WLBCC
American Fisheries Society - Endangered	AFS_EN
American Fisheries Society - Threatened	AFS_TH
American Fisheries Society - Vulnerable	AFS_VU
Bureau of Land Management - Sensitive	BLM_S
Calif Dept of Forestry & Fire Protection - Sensitive	CDF_S
Calif Dept of Fish & Game - Fully Protected	DFG_FP
Calif Dept of Fish & Game - Species of Special Concern	DFG_SSC
Calif Dept of Fish & Game - Watch List	DFG_WL
IUCN - Conservation Dependent	IUCN_CD
IUCN - Critically Endangered	IUCN_CR
IUCN - Data Deficient	IUCN_DD
IUCN - Endangered	IUCN_EN
IUCN - Least Concern	IUCN_LC
IUCN - Near Threatened	IUCN_NT
IUCN - Vulnerable	IUCN_VU
Marine Mammal Commission - Species of Special Concern	MMC_SSC
National Marine Fisheries Service - Species of Concern	NMFS_SC
U. S. Forest Service - Sensitive	USFS_S
U. S. Fish & Wildlife Service Birds of Conservation Concern	USFWS_BCC
Western Bat Working Group - High Priority	WBWG_H
Western Bat Working Group - Low-Medium Priority	WBWG_LM
Western Bat Working Group - Medium Priority	WBWG_M
Western Bat Working Group - Medium-High Priority	WBWG_MH
Xerces Society - Critically Imperiled	XERCES_CI
Xerces Society - Data Deficient	XERCES_DD
Xerces Society - Imperiled	XERCES_IM
Xerces Society - Vulnerable	XERCES_VU

Invertebrates

Species	Comment	Rank	ESA	CESA	Other Status	Notes
PELECYPODA (clams and mussels)						
+Anodonta californiensis California floater		G3Q S2?	None	None	USFS:S	
Anodonta oregonensis Oregon floater		G5Q SNR	None	None		
+Gonidea angulata western ridged mussel		G3 S1S2	None	None		
+Margaritifera falcata western pearlshell		G4 S2S3?	None	None		
Pisidium ultramontanum fingernail clam		G1 S1	None	None	USFS:S	
GASTROPODA (Snails, slugs and abalone)						
Algamorda newcombiana Newcomb's littorine snail		G1G2 S1S2	None	None	USFS:S	
+Ammonitella yatesii tight coin (=Yates' snail)		G1 S1	None	None	IUCN:VU	
+Ancotrema voyanum hooded lancetooth		G1G2 S1S2	None	None	BLM:S	
+Assiminea infima Badwater snail		G1 S1	None	None	IUCN:VU	
+Binneya notabilis Santa Barbara shelled slug		G1 S1	None	None	IUCN:DD	
+Colligyrus convexus canary duskysnail		G1G2 S1S2	None	None		
+Eremarionta immaculata white desertsnail		G1 S1	None	None	IUCN:VU	
Eremarionta millepalmarum Thousand Palms desertsnail		G1 S1	None	None	IUCN:VU	
+Eremarionta morongoana Morongo (=Colorado) desertsnail		G1G3 S1	None	None	IUCN:NT	
+Eremarionta rowelli bakerensis Baker's desertsnail		G1T1 S1	None	None	IUCN:DD	
+Eremarionta rowelli mccoiana California Mccoy snail		G1T1 S1	None	None	IUCN:DD	
+Fluminicola seminalis nugget pebblesnail		G2 S1S2	None	None	USFS:S	
+Fontelicella sp. Deep Springs fontelicella		G1 S1	None	None		
Haliotis corrugata pink abalone		GNR SNR	None	None	NMFS:SC	
+Haliotis cracherodii black abalone		G3G4 S3	Endangered	None	IUCN:CR NMFS:SC	
Haliotis fulgens green abalone		GNR SNR	None	None	NMFS:SC	
Haliotis kamtschatkana pinto abalone		G3G4 S1S3	None	None	IUCN:EN NMFS:SC	
Haliotis sorenseni white abalone		G1 S1	Endangered	None		
+Haplotrema catalinense Santa Catalina lancetooth		G1 S1	None	None		
+Haplotrema duranti Durant's snail		G2G3 S2S3	None	None		
+Helisoma newberryi Great Basin rams-horn		G1Q S1	None	None	USFS:S	
+Helminthoglypta allynsmithi Merced Canyon shoulderband		G1 S1	None	None	IUCN:VU	
+Helminthoglypta arrosa monticola mountain shoulderband		G2G3T1 S1	None	None		
+Helminthoglypta arrosa pomoensis Pomo bronze shoulderband		G2G3T1 S1	None	None	IUCN:DD	

Invertebrates

Species	Comment	Rank	ESA	CESA	Other Status	Notes
GASTROPODA (Snails, slugs and abalone)						
+Helminthoglypta ayresiana sanctaecrucis Ayer's snail		G1G2T1T2 S1S2	None	None		
+Helminthoglypta callistoderma Kern shoulderband		G1 S1	None	None	IUCN:EN	
+Helminthoglypta coelata mesa shoulderband		G1 S1	None	None	IUCN:VU	
+Helminthoglypta concolor whitefir shoulderband		G1G3 S1S3	None	None		
+Helminthoglypta hertleini Oregon shoulderband		G1 S1	None	None	BLM:S	
+Helminthoglypta milleri peak shoulderband		G1 S1	None	None		
+Helminthoglypta mohaveana Victorville shoulderband		G1 S1	None	None	IUCN:NT	
+Helminthoglypta nickliniana awania Peninsula coast range shoulderband		G1T1 S1	None	None	IUCN:DD	
+Helminthoglypta nickliniana bridgesi Bridges' coast range shoulderband		G2T1 S1	None	None	IUCN:DD	
+Helminthoglypta sequoicola consors redwood shoulderband		G1G2T1 S1	None	None	IUCN:DD	
+Helminthoglypta stiversiana williamsi Williams' bronze shoulderband		G2G3T1 S1	None	None	IUCN:DD	
+Helminthoglypta talmadgei Trinity shoulderband		G1G3 S1S3	None	None	BLM:S	
+Helminthoglypta taylori westfork shoulderband		G1 S1	None	None		
+Helminthoglypta traskii traskii Trask shoulderband		G1G2T1 S1	None	None		
+Helminthoglypta walkeriana Morro shoulderband (=banded dune) snail		G1 S1	Endangered	None	IUCN:CR	
+Hesperarion plumbeus leaden slug		G1G3 S1S3	None	None		
+Ipnobius robustus robust tryonia		G1G2 S1	None	None		
+Juga acutifilosa topaz juga		G2 S2	None	None	USFS:S	
+Juga chacei Chace juga		G1 S1	None	None		
+Juga occata scalloped juga		G1 S1	None	None	USFS:S	
+Juga orickensis redwood juga		G2 S1S2	None	None		
Lanx alta highcap Lanx		G2 S1S2	None	None		
Lanx klamathensis scale lanx		G1 S1	None	None		
+Lanx patelloides kneecap lanx		G2 S2	None	None		
+Megomphix californicus Natural Bridge megomphix		G1G2 S1S2	None	None		
+Micrarionta facta Santa Barbara islandsnail		G1G2 S1S2	None	None	IUCN:VU	
+Micrarionta feralis San Nicolas islandsnail		G1 S1	None	None	IUCN:CR	
+Micrarionta gabbi San Clemente islandsnail		G1 S1	None	None	IUCN:VU	
+Micrarionta opuntia pricklypear islandsnail		G1 S1	None	None	IUCN:VU	

Invertebrates

Species	Comment	Rank	ESA	CESA	Other Status	Notes
GASTROPODA (Snails, slugs and abalone)						
+Monadenia callipeplus downy sideband		G1G2 S1S2	None	None		
+Monadenia chaceana Siskiyou shoulderband		G2 S2	None	None	BLM:S	
+Monadenia churchi Klamath sideband		G2 S2	None	None		
+Monadenia circumcarinata keeled sideband		G1 S1	None	None	BLM:S IUCN:VU	
+Monadenia cristulata crested sideband		G1G2 S1S2	None	None		
+Monadenia fidelis leonina A terrestrial snail		G4G5T1T2 S1S2	None	None		
+Monadenia fidelis pronotis rocky coast Pacific sideband		G4G5T1 S1	None	None	IUCN:DD	
+Monadenia infumata ochromphalus yellow-based sideband		G2T1 S1	None	None		
+Monadenia infumata setosa Trinity bristle snail		G2T2 S2	None	Threatened	IUCN:VU	
Monadenia marmarotis marble sideband		G1 S1	None	None		
+Monadenia mormonum buttoni Button's Sierra sideband		G1G2T1 S1	None	None	IUCN:DD	
+Monadenia mormonum hirsuta hirsute Sierra sideband		G1G2T1 S1	None	None	BLM:S IUCN:DD	
+Monadenia troglodytes troglodytes Shasta sideband		G1G2T1T2 S1S2	None	None	IUCN:DD USFS:S	
Monadenia troglodytes wintu Wintu sideband		G1G2T1T2 S1S2	None	None	IUCN:DD USFS:S	
+Monadenia tuolumneana Tuolumne sideband		G1 S1	None	None	BLM:S	
+Monadenia yosemitensis Yosemite Mariposa sideband		G1 S1	None	None	IUCN:DD	
+Noyo intersessa Ten Mile shoulderband		G2 S2	None	None		
+Pomatiopsis binneyi robust walker		G1 S1	None	None		
Pomatiopsis californica Pacific walker		G1 S1	None	None		
Pomatiopsis chacei marsh walker		G1 S1	None	None		
+Pristiloma shepardae Shepard's snail		G1 S1	None	None		
+Pristinicola hemphilli pristine pyrg		G3 S1	None	None		
Prophysaon coeruleum Blue-gray taildropper slug	(May be a species complex.)	G3G4 S1S2	None	None	USFS:S	
+Punctum hannai Trinity Spot		G1 S1S3	None	None		
+Pyrgulopsis aardahli Benton Valley (=Aahrdahl's) springsnail		G1 S1	None	None		
+Pyrgulopsis archimedis Archimedes pyrg		G1 S1	None	None		
+Pyrgulopsis cinerana Ash Valley pyrg		G1G2 S1S2	None	None		
+Pyrgulopsis diablensis Diablo Range pyrg		G1 S1	None	None		
+Pyrgulopsis eremica Smoke Creek pyrg		G2 S2	None	None		

Invertebrates

Species	Comment	Rank	ESA	CESA	Other Status	Notes
GASTROPODA (Snails, slugs and abalone)						
+*Pyrgulopsis falciglans* Likely pyrg		G1G2 S1	None	None		
+*Pyrgulopsis gibba* Surprise Valley pyrg		G3 S2?	None	None		
+*Pyrgulopsis greggi* Kern River pyrg		G1 S1	None	None		
+*Pyrgulopsis lasseni* Willow Creek pyrg		G1G2 S1S2	None	None		
+*Pyrgulopsis longae* Long Valley pyrg		G1 S1	None	None		
+*Pyrgulopsis owensensis* Owens Valley springsnail		G1G2 S1S2	None	None	USFS:S	
+*Pyrgulopsis perturbata* Fish Slough springsnail		G1G2 S1S2	None	None		
+*Pyrgulopsis rupinicola* Sucker Springs pyrg		G1G2 S1	None	None		
+*Pyrgulopsis taylori* San Luis Obispo pyrg		G1 S1	None	None		
Pyrgulopsis ventricosa Clear Lake pyrg		G1 S1	None	None		
+*Pyrgulopsis wongi* Wong's springsnail		G2 S1S2	None	None	USFS:S	
+*Radiocentrum avalonense* Catalina mountainsnail		G1 S1	None	None	IUCN:CR	
+*Rothelix warnerfontis* Warner Springs shoulderband		G1 S1	None	None		
+*Sterkia clementina* San Clemente Island blunt-top snail		G1 S1	None	None	IUCN:NT	
+*Trilobopsis roperi* Shasta chaparral		G1 S1	None	None	USFS:S	
Trilobopsis tehamana Tehama chaparral		G1 S1	None	None	BLM:S USFS:S	
+*Tryonia imitator* mimic tryonia (=California brackishwater snail)		G2G3 S2S3	None	None	IUCN:DD	
+*Tryonia margae* Grapevine Springs elongate tryonia		G1 S1	None	None		
+*Tryonia rowlandsi* Grapevine Springs squat tryonia		G1 S1	None	None		
+*Vespericola karokorum* Karok hesperian		G2G3 S2S3	None	None	IUCN:DD	
+*Vespericola marinensis* Marin hesperian		G2G3 S2S3	None	None		
+*Vespericola pressleyi* Big Bar hesperian		G1 S1	None	None	BLM:S USFS:S	
Vespericola scotti Benson Gulch hesperian	(Known only from the type locality, Benson Gulch, Trinity Co.)	G1 S1	None	None		
+*Vespericola shasta* Shasta hesperian		G1 S1	None	None	USFS:S	
+*Vespericola sierranus* Siskiyou hesperian		G2 S1S2	None	None		
+*Xerarionta intercisa* horseshoe snail		G1 S1	None	None	IUCN:VU	
+*Xerarionta redimita* wreathed cactussnail		G1 S1	None	None	IUCN:VU	
Xerarionta tryoni Bicolor cactussnail		G1 S1	None	None	IUCN:VU	

Invertebrates

Species	Comment	Rank	ESA	CESA	Other Status	Notes
ARACHNIDA (Spiders and relatives)						
+Aphrastochthonius grubbsi Grubbs' Cave pseudoscorpion		G1G2 S1S2	None	None		
Aphrastochthonius similis Carlow's Cave pseudoscorpion		G1G2 S1S2	None	None		
Archeolarca aalbui Aalbu's Cave pseudoscorpion		G1G2 S1S2	None	None		
+Banksula californica Alabaster Cave harvestman		GH SH	None	None		
+Banksula galilei Galile's cave harvestman		G1 S1	None	None		
+Banksula grubbsi Grubbs' cave harvestman		G1 S1	None	None		
+Banksula incredula incredible harvestman		G1 S1	None	None		
+Banksula martinorum Martins' cave harvestman		G1 S1	None	None		
+Banksula melones Melones Cave harvestman		G2G3 S2S3	None	None	IUCN:VU	
+Banksula rudolphi Rudolph's cave harvestman		G1 S1	None	None		
+Banksula tuolumne Tuolumne cave harvestman		G1 S1	None	None		
+Banksula tutankhamen King Tut Cave harvestman		G1 S1	None	None		
+Calicina arida San Benito harvestman		G1 S1	None	None		
+Calicina breva Stanislaus harvestman		G1 S1	None	None		
+Calicina cloughensis Clough Cave harvestman		G1 S1	None	None		
+Calicina conifera Crane Flat harvestman		G1 S1	None	None		
+Calicina diminua Marin blind harvestman		G1 S1	None	None		
+Calicina dimorphica Watts Valley harvestman		G1 S1	None	None		
+Calicina macula marbled harvestman		G1 S1	None	None		
+Calicina mesaensis Table Mountain harvestman		G1 S1	None	None		
+Calicina minor Edgewood blind harvestman		G1 S1	None	None		
+Calicina piedra Piedra harvestman		G1 S1	None	None		
+Calileptoneta briggsi Briggs' leptonetid spider		G1 S1	None	None		
+Calileptoneta oasa Andreas Canyon leptonetid spider		G1 S1	None	None		
+Calileptoneta ubicki Ubick's leptonetid spider		G1 S1	None	None		
+Calileptoneta wapiti Mendocino leptonetid spider		G1 S1	None	None		
+Fissilicreagris imperialis Empire Cave pseudoscorpion		G1 S1	None	None	IUCN:VU	
+Hubbardia idria Idria short-tailed whipscorpion		G1 S1	None	None		
+Hubbardia secoensis Arroyo Seco short-tailed whipscorpion		G1 S1	None	None		

Invertebrates

Species	Comment	Rank	ESA	CESA	Other Status	Notes
ARACHNIDA (Spiders and relatives)						
+Hubbardia shoshonensis Shoshone Cave whip-scorpion		G1 S1	None	None	BLM:S	
+Larca laceyi Lacey's Cave pseudoscorpion		G1G2 S1	None	None		
+Meta dolloff Dolloff Cave spider		G1 S1	None	None	IUCN:VU	
+Microcina edgewoodensis Edgewood Park micro-blind harvestman		G1 S1	None	None		
+Microcina homi Hom's micro-blind harvestman		G1 S1	None	None		
+Microcina jungi Jung's micro-blind harvestman		G1 S1	None	None		
+Microcina leei Lee's micro-blind harvestman		G1 S1	None	None		
+Microcina lumi Lum's micro-blind harvestman		G1 S1	None	None		
+Microcina tiburona Tiburon micro-blind harvestman		G1 S1	None	None		
+Neochthonius imperialis Empire Cave pseudoscorpion		G1 S1	None	None		
Pauroctonus maritimus Monterey dunes scorpion		GNR SNR	None	None		
+Pseudogarypus orpheus Music Hall Cave pseudoscorpion		G1G2 S1	None	None		
+Socalchemmis gertschi Gertsch's socalchemmis spider		G1 S1	None	None		
+Socalchemmis icenoglei Icenogle's socalchemmis spider		G1 S1	None	None		
+Socalchemmis monterey Monterey socalchemmis spider		G1 S1	None	None		
+Talanites moodyae Moody's gnaphosid spider		G1G2 S1S2	None	None		
+Talanites ubicki Ubick's gnaphosid spider		G1 S1	None	None		
Telema sp. Santa Cruz telemid spider		G1G2 S1S2	None	None		
Texella deserticola Whitewater Canyon harvestman		G1 S1	None	None		
+Texella kokoweef Kokoweef Crystal Cave harvestman		G1 S1	None	None		
+Texella shoshone Shoshone Cave harvestman		G1 S1	None	None		
CRUSTACEA, Order Anostraca (fairy shrimp)						
+Artemia monica Mono brine shrimp		G1 S1	None	None	IUCN:CD	
+Branchinecta campestris pocket pouch fairy shrimp		G4 S1	None	None		
+Branchinecta conservatio Conservancy fairy shrimp		G1 S1	Endangered	None	IUCN:EN	
+Branchinecta longiantenna longhorn fairy shrimp		G1 S1	Endangered	None	IUCN:EN	
+Branchinecta lynchi vernal pool fairy shrimp		G3 S2S3	Threatened	None	IUCN:VU	
+Branchinecta mesovallensis midvalley fairy shrimp		G2 S2	None	None		
+Branchinecta sandiegonensis San Diego fairy shrimp		G1 S1	Endangered	None	IUCN:EN	
+Linderiella occidentalis California linderiella		G3 S2S3	None	None	IUCN:NT	

Invertebrates

Species	Comment	Rank	ESA	CESA	Other Status	Notes
CRUSTACEA, Order Anostraca (fairy shrimp)						
+Linderiella santarosae Santa Rosa Plateau fairy shrimp		G1G2 S1	None	None		
+Streptocephalus woottoni Riverside fairy shrimp		G1 S1	Endangered	None	IUCN:EN	
CRUSTACEA, Order Notostraca (tadpole shrimp)						
+Lepidurus packardi vernal pool tadpole shrimp		G3 S2S3	Endangered	None	IUCN:EN	
CRUSTACEA, Order Anomopoda (water fleas)						
+Dumontia oregonensis hairy water flea		G1G3 S1	None	None		
CRUSTACEA, Order Isopoda (isopods)						
+Caecidotea sequoiae Sequoia cave isopod		G1G2 S1S2	None	None		
+Caecidotea tomalensis Tomales isopod		G2 S2	None	None		
+Calasellus californicus An isopod		G2G3 S2S3	None	None		
+Calasellus longus An isopod		G1G2 S1S2	None	None		
CRUSTACEA, Order Amphipoda (amphipods)						
+Stygobromus gradyi Grady's Cave amphipod		G1 S1	None	None	IUCN:VU	
+Stygobromus harai Hara's Cave amphipod		G1G2 S1S2	None	None	IUCN:VU	
+Stygobromus mackenziei Mackenzie's Cave amphipod		G1G2 S1S2	None	None	IUCN:VU	
+Stygobromus wengerorum Wengerors' Cave amphipod		G1G2 S1S2	None	None	IUCN:VU	
CRUSTACEA, Order Decapoda (crayfish & shrimp)						
+Pacifastacus fortis Shasta crayfish		G1 S1	Endangered	Endangered	IUCN:CR	
Pacifastacus leniusculus klamathensis Klamath crayfish		G5T5 S3	None	None		
+Syncaris pacifica California freshwater shrimp		G1 S1	Endangered	Endangered	IUCN:EN	
INSECTA, Order Odonata (dragonflies & damselflies)						
+Ischnura gemina San Francisco forktail damselfly		G2 S2	None	None	IUCN:VU	
INSECTA, Order Plecoptera (stoneflies)						
+Capnia lacustra Lake Tahoe benthic stonefly		G1 S1	None	None		
+Cosumnoperla hypocrena Cosumnes spring stonefly		G1 S1	None	None		
+Megaleuctra sierra Shirttail Creek stonefly		G2Q S1?	None	None		
INSECTA, Order Orthoptera (grasshoppers, katydids, and crickets)						
+Aglaothorax longipennis Santa Monica shieldback katydid		G1G2 S1S2	None	None	IUCN:CR	
+Ammopelmatus kelsoensis Kelso jerusalem cricket		G1 S1	None	None	IUCN:VU	
+Ammopelmatus muwu Point Conception jerusalem cricket		G1 S1	None	None	IUCN:VU	
+Idiostatus kathleenae Pinnacles shieldback katydid		G1G2 S1S2	None	None		
+Idiostatus middlekauffi Middlekauff's shieldback katydid		G1G2 S1	None	None	IUCN:CR	

Invertebrates

Species	Comment	Rank	ESA	CESA	Other Status	Notes
INSECTA, Order Orthoptera (grasshoppers, katydids, and crickets)						
Macrobaenetes algodonensis Algodones sand treader cricket		G1G2 S1S2	None	None		
+Macrobaenetes kelsoensis Kelso giant sand treader cricket		G1 S1	None	None	IUCN:VU	
+Macrobaenetes valgum Coachella giant sand treader cricket		G1G2 S1S2	None	None	IUCN:VU	
Pristoceuthophilus sp. Samwell Cave cricket		G1G3 S1S3	None	None	IUCN:VU	
+Psychomastax deserticola desert monkey grasshopper		G1G2 S1S2	None	None	IUCN:VU	
+Stenopelmatus cahuilaensis Coachella Valley jerusalem cricket		G1G2 S1S2	None	None	IUCN:VU	
+Tetrix sierrana Sierra pygmy grasshopper		G1G2 S1S2	None	None	IUCN:VU	
+Trimerotropis infantilis Zayante band-winged grasshopper		G1 S1	Endangered	None	IUCN:EN	
+Trimerotropis occidentiloides Santa Monica grasshopper		G1G2 S1S2	None	None	IUCN:EN	
+Trimerotropis occulens Lompoc grasshopper		GH SH	None	None	IUCN:EN	
INSECTA, Order Heteroptera (true bugs)						
+Ambrysus funebris Nevares Spring naucorid bug		G1 S1	Candidate	None		
+Belostoma saratogae Saratoga Springs belostoman bug		G1 S1	None	None		
+Oravelia pege Dry Creek cliff strider bug		G1 S1	None	None		
+Pelocoris shoshone Amargosa naucorid bug		G1G3 S1S2	None	None		
+Saldula usingeri Wilbur Springs shorebug		G1 S1	None	None		
INSECTA, Order Neuroptera (lacewings)						
+Oliarces clara cheeseweed owlfly (cheeseweed moth lacewing)		G1G3 S1S3	None	None		
INSECTA, Order Coleoptera (beetles)						
+Aegialia concinna Ciervo aegilian scarab beetle		G1 S1	None	None	BLM:S IUCN:VU	
+Agabus rumppi Death Valley agabus diving beetle		G1G3 S1	None	None		
Agrilus harenus Narenus jewel beetle		G1G2 S1S2	None	None		
+Anomala carlsoni Carlson's dune beetle		G2 S2	None	None		
+Anomala hardyorum Hardy's dune beetle		G2 S2	None	None		
+Anthicus antiochensis Antioch Dunes anthicid beetle		G1 S1	None	None		
+Anthicus sacramento Sacramento anthicid beetle		G1 S1	None	None	IUCN:EN	
+Atractelmis wawona Wawona riffle beetle		G1G3 S1S2	None	None		
+Chaetarthria leechi Leech's chaetarthrian water scavenger beetle		G1? S1?	None	None		
+Cicindela gabbii western tidal-flat tiger beetle		G4 S1	None	None		
+Cicindela hirticollis abrupta Sacramento Valley tiger beetle		G5TH SH	None	None		

Invertebrates

Species	Comment	Rank	ESA	CESA	Other Status	Notes
INSECTA, Order Coleoptera (beetles)						
+Cicindela hirticollis gravida sandy beach tiger beetle		G5T2 S1	None	None		
+Cicindela latesignata latesignata western beach tiger beetle		G4T1T2 S1	None	None		
+Cicindela ohlone Ohlone tiger beetle		G1 S1	Endangered	None		
+Cicindela senilis frosti senile tiger beetle		G4T1 S1	None	None		
+Cicindela tranquebarica ssp. San Joaquin tiger beetle		G5T1 S1	None	None		
+Cicindela tranquebarica viridissima greenest tiger beetle		G5T1 S1	None	None		
+Coelus globosus globose dune beetle		G1 S1	None	None	IUCN:VU	
+Coelus gracilis San Joaquin dune beetle		G1 S1	None	None	BLM:S IUCN:VU	
Coenonycha clementina San Clemente Island coenonycha beetle		G1? S1?	None	None		
Cyclocephala wandae Wandae dune beetle		G1G2 S1S2	None	None		
Deltaspis ivae marsh-elder long-horned beetle		G1 S1	None	None		
+Desmocerus californicus dimorphus valley elderberry longhorn beetle		G3T2 S2	Threatened	None		
+Dinacoma caseyi Casey's June beetle		G1 S1	Proposed Endangered	None		
+Dubiraphia brunnescens brownish dubiraphian riffle beetle		G1G3 S1S3	None	None		
+Dubiraphia giulianii Giuliani's dubiraphian riffle beetle		G1G3 S1S3	None	None		
+Elaphrus viridis Delta green ground beetle		G1 S1	Threatened	None	IUCN:CR	
+Glaresis arenata Kelso Dunes scarab glaresis beetle		G1G3 S1S3	None	None		
+Hydrochara rickseckeri Ricksecker's water scavenger beetle		G1G2 S1S2	None	None		
+Hydroporus hirsutus wooly hydroporus diving beetle		G1G3 S1S3	None	None		
+Hydroporus leechi Leech's skyline diving beetle		G1? S1?	None	None		
+Hydroporus simplex simple hydroporus diving beetle		G1? S1?	None	None		
+Hygrotus curvipes curved-foot hygrotus diving beetle		G1 S1	None	None		
+Hygrotus fontinalis travertine band-thigh diving beetle		G1 S1	None	None		
Juniperella mirabilis juniper metallic wood-boring beetle		G1 S1	None	None		
+Lepismadora algodones Algodones sand jewel beetle		G1 S1	None	None		
+Lichnanthe albipilosa white sand bear scarab beetle		G1 S1	None	None		
+Lichnanthe ursina bumblebee scarab beetle		G2 S2	None	None		
+Lytta hoppingi Hopping's blister beetle		G1G2 S1S2	None	None		
Lytta insperata Mojave Desert blister beetle		G1G2 S1S2	None	None		

Invertebrates

Species	Comment	Rank	ESA	CESA	Other Status	Notes
INSECTA, Order Coleoptera (beetles)						
+Lytta moesta moestan blister beetle		G2 S2	None	None		
+Lytta molesta molestan blister beetle		G2 S2	None	None		
+Lytta morrisoni Morrison's blister beetle		G1G2 S1S2	None	None		
+Microcylloepus formicoideus Furnace Creek riffle beetle		G1 S1	None	None		
+Miloderes nelsoni Nelson's miloderes weevil		G1G3 S1S3	None	None		
+Nebria darlingtoni South Forks ground beetle		G1 S1	None	None		
+Nebria gebleri siskiyouensis Siskiyou ground beetle		G4G5T4 S1S3	None	None		
+Nebria sahlbergii triad Tinity Alps ground beetle		G1G3T1T3 S1S3	None	None		
Ochthebius crassalus wing shoulder minute moss beetle		G1G3 S1S3	None	None		
+Ochthebius recticulus Wilbur Springs minute moss beetle		G1 S1	None	None		
+Onychobaris langei Lange's El Segundo Dune weevil		G1 S1	None	None		
+Optioservus canus Pinnacles optioservus riffle beetle		G1 S1	None	None		
Paleoxenus dohrni Dohrn's elegant eucnemid beetle		GNR SNR	None	None		
+Polyphylla anteronivea Saline Valley snow-front June beetle		G1 S1	None	None		
+Polyphylla barbata Mount Hermon (=barbate) June beetle		G1 S1	Endangered	None		
+Polyphylla erratica Death Valley June beetle		G1 S1	None	None		
+Polyphylla nubila Atascadero June beetle		G1 S1	None	None		
Prasinalia imperialis Algodones white wax jewel beetle		G1G2 S1S2	None	None		
+Pseudocotalpa andrewsi Andrew's dune scarab beetle		G2G3 S2S3	None	None		
Scaphinotus behrensi A ground beetle		GNR SNR	None	None		
+Trachykele hartmani serpentine cypress wood-boring beetle		G1 S1	None	None		
Trichinorhipis knulli A metallic wood-boring beetle		G1 S1	None	None		
+Trigonoscuta brunnotesselata brown tassel trigonoscuta weevil		G1G2 S1S2	None	None		
+Trigonoscuta dorothea dorothea Dorothy's El Segundo Dune weevil		G1T1 S1	None	None		
Trigonoscuta rothi algodones Algodones dune weevil		G1G2 S1S2	None	None		
Trigonoscuta rothi imperialis Imperial dune weevil		G1G2 S1S2	None	None		
Trigonoscuta rothi punctata Punctate dune weevil		G1G2 S1S2	None	None		
Trigonoscuta rothi rothi Roth's dune weevil		G1G2 S1S2	None	None		
+Trigonoscuta sp. Doyen's trigonoscuta dune weevil		G1 S1	None	None		Yes

Invertebrates

Species	Comment	Rank	ESA	CESA	Other Status	Notes
INSECTA, Order Coleoptera (beetles)						
+Trigonoscuta stantoni Santa Cruz Island shore weevil		G1? S1?	None	None		
+Vandykea tuberculata serpentine cypress long-horned beetle		G1 S1	None	None		
INSECTA, Order Mecoptera (scorpionflies)						
+Orobittacus obscurus gold rush hanging scorpionfly		G1 S1	None	None		
INSECTA, Order Diptera (flies)						
+Ablautus schlingeri Oso Flaco robber fly		G1 S1	None	None		
Apiocera warneri Glamis sand fly		G1G2 S1S2	None	None		
+Brennania belkini Belkin's dune tabanid fly		G1G2 S1S2	None	None	IUCN:VU	
+Efferia antiochi Antioch efferian robberfly		G1G3 S1S3	None	None		
Efferia macroxipha Glamis robberfly		G1G2 S1S2	None	None		
+Metapogon hurdi Hurd's metapogon robberfly		G1G3 S1S3	None	None		
+Paracoenia calida Wilber Springs shore fly		G1 S1	None	None		
+Rhaphiomidas terminatus abdominalis Delhi Sands flower-loving fly		G1T1 S1	Endangered	None		
+Rhaphiomidas terminatus terminatus El Segundo flower-loving fly		G1T1 S1	None	None		
Rhaphiomidas trochilus Valley mydas fly		G1 S1	None	None		
INSECTA, Order Lepidoptera (butterflies & moths)						
+Adela oplerella Opler's longhorn moth		G2G3 S2S3	None	None		
+Apodemia mormo langei Lange's metalmark butterfly		G5T1 S1	Endangered	None	XERCES:CI	
+Areniscythris brachypteris Oso Flaco flightless moth		G1 S1	None	None		
Callophrys comstocki desert green hairstreak		G2G3 S1S2	None	None	XERCES:IM	
+Callophrys mossii bayensis San Bruno elfin butterfly		G4T1 S1	Endangered	None	XERCES:CI	
+Callophrys mossii hidakupa San Gabriel Mountains elfin butterfly		G4T1T2 S1S2	None	None		
+Callophrys mossii marinensis Marin elfin butterfly		G4T1 S1	None	None		
+Callophrys thornei Thorne's hairstreak		G1 S1	None	None	BLM:S	
+Carolella busckana Busck's gallmoth		G1G3 SH	None	None		
+Carterocephalus palaemon magnus Sonoma arctic skipper		G5T1 S1	None	None		
Cercyonis pegala carsonensis Carson Valley wood nymph		G5T12 S1S2	None	None		
+Chlosyne leanira elegans Oso Flaco patch butterfly		G4G5T1T2 S1S2	None	None		
+Coenonympha tullia yontockett Yontocket satyr		G5T1T2 S1	None	None		
+Danaus plexippus monarch butterfly		G5 S3	None	None		

Invertebrates

Species	Comment	Rank	ESA	CESA	Other Status	Notes
INSECTA, Order Lepidoptera (butterflies & moths)						
+Euchloe hyantis andrewsi Andrew's marble butterfly		G3G4T1 S1	None	None		
+Eucosma hennei Henne's eucosman moth		G1 S1	None	None		
+Euphilotes battoides allyni El Segundo blue butterfly		G5T1 S1	Endangered	None	XERCES:CI	
+Euphilotes battoides comstocki Comstock's blue butterfly		G5T1T3 S1S3	None	None		
Euphilotes baueri Bauer's dotted-blue		G2G4 S1S2	None	None	XERCES:IM	
+Euphilotes enoptes smithi Smith's blue butterfly		G5T1T2 S1S2	Endangered	None	XERCES:CI	
Euphilotes mojave Mojave dotted-blue		G2G3 S1S2	None	None	XERCES:IM	
+Euphydryas editha bayensis Bay checkerspot butterfly		G5T1 S1	Threatened	None	XERCES:CI	
+Euphydryas editha monoensis Mono checkerspot butterfly		G5T3? S1S2	None	None		
+Euphydryas editha quino quino checkerspot butterfly		G5T1 S1	Endangered	None	XERCES:CI	
Euphyes vestris harbisoni dun skipper		G5T1 S1?	None	None		
+Euproserpinus euterpe Kern primrose sphinx moth		G1 S1	Threatened	None	XERCES:CI	
+Glaucopsyche lygdamus palosverdesensis Palos Verdes blue butterfly		G5T1 S1	Endangered	None	XERCES:CI	
+Hesperia miriamae longaevicola White Mountains skipper		G2G3T1 S1	None	None		
Hesperopsis gracielae Macneill's sooty wing skipper		G2G3 S2S3	None	None	XERCES:VU	
+Lycaena hermes Hermes copper butterfly		G1G2 S1S2	None	None	IUCN:VU	
Lycaena rubidus incana White Mountains copper		G5T1 S1	None	None		
+Panoquina errans wandering (=saltmarsh) skipper		G4G5 S1	None	None	IUCN:NT	
+Philotiella speciosa bohartorum Boharts' blue butterfly		G3G4T1 S1	None	None		
+Plebejus icarioides albihalos White Mountains icarioides blue butterfly		G5T2T3 S2?	None	None		
+Plebejus icarioides missionensis Mission blue butterfly		G5T1 S1	Endangered	None	XERCES:CI	
+Plebejus icarioides moroensis Morro Bay blue butterfly		G5T1T3 S1S3	None	None		
+Plebejus icarioides parapheres Point Reyes blue butterfly		G5T1T2 S1S2	None	None		
+Plebejus idas lotis lotis blue butterfly		G5TH SH	Endangered	None	XERCES:CI	
+Plebejus saepiolus albomontanus White Mountains saepiolus blue butterfly		G5T2 S1S2	None	None		
+Plebejus saepiolus aureolus San Gabriel Mountains blue butterfly		G5T1 S1	None	None		
+Plebulina emigdionis San Emigdio blue butterfly		G2G3 S2S3	None	None		
+Polites mardon mardon skipper		G2G3 S1	Candidate	None	XERCES:IM	

Invertebrates

Species	Comment	Rank	ESA	CESA	Other Status	Notes
INSECTA, Order Lepidoptera (butterflies & moths)						
Polites sabuleti albamontana White Mountains sandhill skipper		G5T2 S2	None	None		
Psammobotys fordi Ford's sand dune moth		GNR SNR	None	None		
Pseudocopaeodes eunus eunus alkali skipper		G3G4T1T3 S1S3	None	None		
+Pseudocopaeodes eunus obscurus Carson wandering skipper		G3G4T1 S1	Endangered	None	XERCES:CI	
+Pyrgus ruralis lagunae Laguna Mountains skipper		G5T1 S1	Endangered	None	XERCES:CI	
+Speyeria adiaste adiaste unsilvered fritillary		G1G2T1 S1	None	None		
+Speyeria callippe callippe callippe silverspot butterfly		G5T1 S1	Endangered	None	XERCES:CI	
Speyeria egleis tehachapina Tehachapi Mountain silverspot butterfly		G5T2T3 S2S3	None	None		
+Speyeria nokomis carsonensis Carson Valley silverspot		G3T1 S1	None	None		
+Speyeria zerene behrensii Behren's silverspot butterfly		G5T1 S1	Endangered	None	XERCES:CI	
+Speyeria zerene hippolyta Hippolyta frittilary		G5T1 S1	Threatened	None	XERCES:CI	
+Speyeria zerene myrtleae Myrtle's silverspot		G5T1 S1	Endangered	None	XERCES:CI	
INSECTA, Order Trichoptera (caddisflies)						
+Cryptochia denningi Denning's cryptic caddisfly		G1G2 S1S2	None	None		
+Cryptochia excella Kings Canyon cryptochian caddisfly		G1G2 S1S2	None	None		
+Cryptochia shasta confusion caddisfly		G1G2 S1S2	None	None		
+Desmona bethula amphibious caddisfly		G2G3 S2S3	None	None		
+Diplectrona californica California diplectronan caddisfly		G1G2 S1S2	None	None		
+Ecclisomyia bilera Kings Creek ecclysomyian caddisfly		G1G2 S1S2	None	None		
+Farula praelonga long-tailed caddisfly		G1G2 S1S2	None	None		
+Goeracea oregona Sagehen Creek goeracean caddisfly		G2 S1S2	None	None		
+Lepidostoma ermanae Cold Spring caddisfly		G1G2 S1S2	None	None		
+Limnephilus atercus Fort Dick limnephilus caddisfly		G4 S1	None	None		
+Neothremma genella golden-horned caddisfly		G1G2 S1S2	None	None		
Neothremma siskiyou Siskiyou caddisfly		G1G2 S1S2	None	None		
+Parapsyche extensa King's Creek parapsyche caddisfly		GH SH	None	None		
+Rhyacophila lineata Castle Crags rhyacophilan caddisfly		G1G3 S1S2	None	None		
+Rhyacophila mosana bilobed rhyacophilan caddisfly		G1G2Q S1S2	None	None		
+Rhyacophila spinata spiny rhyacophilan caddisfly		G1G2 S1S2	None	None		

Invertebrates

Species	Comment	Rank	ESA	CESA	Other Status	Notes
INSECTA, Order Hymenoptera (ants, bees, & wasps)						
+Andrena blennospermatis Blennosperma vernal pool andrenid bee		G2 S2	None	None		
+Andrena macswaini An andrenid bee		G1G3 S1S3	None	None		
+Andrena subapasta A vernal pool andrenid bee		G1G3 S1S3	None	None		
+Argochrysis lassenae Lassen cuckoo wasp		G1 S1	None	None		
+Ashmeadiella chumashae Channel Islands leaf-cutter bee		G2? S2?	None	None		
Bombus franklini Franklin's bumble bee		G1 S1	None	None	IUCN:CR XERCES:CI	
Bombus occidentalis western bumble bee		G? SNR	None	None	XERCES:IM	
+Ceratochrysis bradleyi Bradley's cuckoo wasp		G1 S1	None	None		
+Ceratochrysis gracilis Piute Mountains cuckoo wasp		G1 S1	None	None		
Ceratochrysis grisselli A cuckoo wasp		GNR SNR	None	None		
+Ceratochrysis longimala A cuckoo wasp		G1 S1	None	None		
+Ceratochrysis menkei Menke's cuckoo wasp		G1 S1	None	None		
+Chrysis tularensis Tulare cuckoo wasp		G1G2 S1S2	None	None		
Cleptes humboldti A cuckoo wasp		GNR SNR	None	None		
+Dufourea stagei Stage's dufourine bee		G1? S1?	None	None		
+Eucerceris ruficeps redheaded sphecid wasp		G1G3 S1S2	None	None		
Euparagia unidentata Algodones euparagia		G1G2 S1S2	None	None		
Habropoda pallida white faced bee		G1G2 S1S2	None	None		
+Halictus harmonius haromonius halictid bee		G1 S1	None	None	XERCES:CI	
+Hedychridium argenteum Riverside cuckoo wasp		G1? S1?	None	None		
+Hedychridium milleri Borax Lake cuckoo wasp		G1? S1?	None	None		
+Lasioglossum channelense Channel Island sweat bee		G1 S1	None	None		
+Melitta californica A mellitid bee		G? SNR	None	None		
Microbembex elegans Algodones elegant sand wasp		G1G2 S1S2	None	None		
+Minymischa ventura Ventura cuckoo wasp		G1G3 S1S3	None	None		
+Myrmosula pacifica Antioch multilid wasp		GH SH	None	None		
Neolarra alba a cuckoo bee		G? SNR	None	None		
+Paranomada californica a cuckoo bee		G1 S1	None	None		
+Parnopes borregoensis Borrego parnopes cuckoo wasp		G1? S1?	None	None		

Invertebrates

Species	Comment	Rank	ESA	CESA	Other Status	Notes
INSECTA, Order Hymenoptera (ants, bees, & wasps)						
Perdita algodones Algodones perdita		G1G2 S1S2	None	None		
Perdita frontalis Imperial Perdita		G1G2 S1S2	None	None		
Perdita glamis Glamis perdita		G1G2 S1S2	None	None		
+Perdita scitula antiochensis Antioch andrenid bee		G1T1 S1	None	None		
+Philanthus nasalis Antioch specid wasp		G1 S1	None	None		
+Protodufourea wasbaueri Wasbauer's protodufourea bee		G1 S1	None	None	XERCES:DD	
+Protodufourea zavortinki Zavortink's protodufourea bee		G1 S1	None	None		
+Rhopalolemma robertsi Roberts' rhopalolemma bee		G1 S1	None	None		
Sedomaya glamisensis Glamis night tiphiid		G1G2 S1S2	None	None		
+Sphecodogastra antiochensis Antioch Dunes halcitid bee		G1 S1	None	None	XERCES:CI	
Spheropthalma ecarinata Glamis night mutillid		G1G2 S1S2	None	None		
Stictiella villegasi Algodones sand wasp		G1G2 S1S2	None	None		
+Trachusa gummifera A leaf-cutter bee		G1 S1	None	None		

Fishes

Species	Comment	Rank	ESA	CESA	Other Status	Notes
PETROMYZONTIDAE (lampreys)						
Lampetra ayresii river lamprey		G4 S4	None	None	AFS:VU DFG:SSC	
+Lampetra hubbsi Kern brook lamprey		G1G2 S1S2	None	None	AFS:TH DFG:SSC IUCN:NT	
Lampetra lethophaga Pit-Klamath brook lamprey		G3G4 S3	None	None	AFS:VU	
Lampetra similis Klamath River lamprey		G3G4Q S3S4	None	None	AFS:TH DFG:SSC	
Lampetra tridentata Pacific lamprey		G5 S4	None	None	AFS:VU	
+Lampetra tridentata ssp. 1 Goose Lake lamprey		G5T1 S1	None	None	AFS:VU DFG:SSC USFS:S	
ACIPENSERIDAE (sturgeon)						
+Acipenser medirostris green sturgeon	(southern DPS)	G3 S1S2	Threatened	None	AFS:VU DFG:SSC IUCN:NT NMFS:SC	Yes
Acipenser transmontanus white sturgeon		G4 S2	None	None	AFS:EN IUCN:LC	
SALMONIDAE (trout & salmon)						
+Oncorhynchus clarkii clarkii coast cutthroat trout		G4T4 S3	None	None	AFS:VU DFG:SSC USFS:S	
+Oncorhynchus clarkii henshawi Lahontan cutthroat trout		G4T3 S2	Threatened	None	AFS:TH	
+Oncorhynchus clarkii seleniris Paiute cutthroat trout		G4T1T2 S1S2	Threatened	None	AFS:EN	
+Oncorhynchus gorbuscha pink salmon		G5 S1	None	None	DFG:SSC	
Oncorhynchus keta chum salmon		G5 S1?	None	None	DFG:SSC	
+Oncorhynchus kisutch coho salmon - southern Oregon / northern California ESU		G4T2Q S2?	Threatened	Threatened	AFS:TH DFG:SSC	Yes
+Oncorhynchus kisutch coho salmon - central California coast ESU		G4 S2?	Endangered	Endangered	AFS:EN	Yes
+Oncorhynchus mykiss aguabonita Volcano Creek golden trout		G5T1 S1	None	None	AFS:TH DFG:SSC USFS:S	
+Oncorhynchus mykiss aquilarum Eagle Lake rainbow trout		G5T1 S1	None	None	AFS:TH DFG:SSC USFS:S	
Oncorhynchus mykiss gilberti Kern River rainbow trout		G5T1Q S1S2	None	None	AFS:TH DFG:SSC	
Oncorhynchus mykiss irideus steelhead - Klamath Mountains Province ESU		G5T3Q S2	None	None	DFG:SSC USFS:S	Yes
+Oncorhynchus mykiss irideus steelhead - central California coast ESU		G5T2Q S2	Threatened	None	AFS:TH	Yes
+Oncorhynchus mykiss irideus steelhead - south/central California coast ESU		G5T2Q S2	Threatened	None	AFS:TH DFG:SSC	Yes
+Oncorhynchus mykiss irideus southern steelhead - southern California ESU		G5T2Q S2	Endangered	None	AFS:EN DFG:SSC	Yes

Fishes

Species	Comment	Rank	ESA	CESA	Other Status	Notes
SALMONIDAE (trout & salmon)						
Oncorhynchus mykiss irideus steelhead - Central Valley ESU		G5T2 S2	Threatened	None	AFS:TH	Yes
+Oncorhynchus mykiss irideus steelhead - northern California ESU		G5T2Q S2	Threatened	None	AFS:TH DFG:SSC	Yes
+Oncorhynchus mykiss irideus summer-run steelhead trout		G5T4Q S2	None	None	DFG:SSC	Yes
+Oncorhynchus mykiss ssp. 1 Goose Lake redband trout		G5T2Q S1	None	None	AFS:VU DFG:SSC USFS:S	
+Oncorhynchus mykiss ssp. 2 McCloud River redband trout		G5T1T2Q S1S2	None	None	AFS:VU DFG:SSC USFS:S	
Oncorhynchus mykiss ssp. 3 Warner Valley redband trout		G5T2Q S1?	None	None	AFS:VU USFS:S	
+Oncorhynchus mykiss whitei Little Kern golden trout		G5T2 S2	Threatened	None	AFS:EN	
Oncorhynchus tshawytscha chinook salmon - Central Valley fall / late fall-run ESU		G5 S2?	None	None	AFS:VU DFG:SSC NMFS:SC USFS:S	Yes
+Oncorhynchus tshawytscha chinook salmon - California coastal ESU		G5 S1	Threatened	None	AFS:TH	Yes
+Oncorhynchus tshawytscha chinook salmon - spring-run Klamath -Trinity Rivers pop.		G5 S1S2	None	None	DFG:SSC USFS:S	
+Oncorhynchus tshawytscha spring-run spring-run chinook salmon		G5 S1	Threatened	Threatened	AFS:TH	Yes
+Oncorhynchus tshawytscha winter-run chinook salmon winter-run		G5 S1	Endangered	Endangered	AFS:EN	
Prosopium williamsoni mountain whitefish		G5 S3	None	None		
+Salvelinus confluentus bull trout		G3 SX	Threatened	Endangered	IUCN:VU	
OSMERIDAE (smelt)						
+Hypomesus transpacificus Delta smelt		G1 S1	Threatened	Threatened	AFS:TH IUCN:EN	
Spirinchus thaleichthys longfin smelt		G5 S1	None	Threatened	DFG:SSC	Yes
Thaleichthys pacificus eulachon		G5 S3	Proposed Threatened	None	DFG:SSC	
CYPRINIDAE (minnows and carp)						
+Gila bicolor mohavensis Mohave tui chub		G4T1 S1	Endangered	Endangered	AFS:EN DFG:FP	
Gila bicolor pectinifer Lahontan Lake tui chub		G4T3 S1S2	None	None	DFG:SSC USFS:S	
+Gila bicolor snyderi Owens tui chub		G4T1 S1	Endangered	Endangered	AFS:EN	
+Gila bicolor ssp. 1 Eagle Lake tui chub		G4T1 S1	None	None	DFG:SSC	
+Gila bicolor ssp. 2 High Rock Spring tui chub		G4TX SX	None	None	DFG:SSC	
Gila bicolor ssp. 3 Pit River tui chub		G4T1T3 S1S3	None	None		
+Gila bicolor thalassina Goose Lake tui chub		G4T2 S1	None	None	AFS:TH DFG:SSC USFS:S	
+Gila bicolor vaccaceps Cow Head tui chub		G4T1 S1	None	None	AFS:EN DFG:SSC	

Fishes

Species	Comment	Rank	ESA	CESA	Other Status	Notes
CYPRINIDAE (minnows and carp)						
+*Gila coerulea* blue chub		G3 S2S3	None	None	DFG:SSC	
+*Gila elegans* bonytail		G1 S1	Endangered	Endangered	AFS:EN IUCN:EN	
+*Gila orcuttii* arroyo chub		G2 S2	None	None	AFS:VU DFG:SSC USFS:S	
+*Lavinia exilicauda chi* Clear Lake hitch		G5T2 S2	None	None	AFS:VU DFG:SSC USFS:S	
Lavinia exilicauda exilicauda Central Valley hitch		G5T2T4 S2S4	None	None		
Lavinia exilicauda harengus Pajaro/Salinas hitch		G5T2T4 S2S4	None	None		
+*Lavinia symmetricus mitrulus* Pit roach		G5T3 S2	None	None	AFS:VU DFG:SSC	
+*Lavinia symmetricus navarroensis* Navarro roach		G5T1T2 S1S2	None	None	DFG:SSC	
+*Lavinia symmetricus parvipinnis* Gualala roach		G5T1T2 S1S2	None	None	DFG:SSC	
+*Lavinia symmetricus ssp. 1* San Joaquin roach		G5T3Q S3	None	None	DFG:SSC	Yes
+*Lavinia symmetricus ssp. 2* Tomales roach		G5T2T3 S2S3	None	None	DFG:SSC	
+*Lavinia symmetricus ssp. 3* Red Hills roach		G5T1 S1	None	None	AFS:VU BLM:S DFG:SSC	
Lavinia symmetricus ssp. 4 Clear Lake - Russian River roach		G5T2T3 S2S3	None	None		
Lavinia symmetricus subditus Monterey roach		G5T2T3 S2S3	None	None	DFG:SSC	
+*Mylopharodon conocephalus* hardhead		G3 S3	None	None	DFG:SSC USFS:S	
+*Pogonichthys macrolepidotus* Sacramento splittail		G2 S2	None	None	AFS:VU DFG:SSC IUCN:EN	
+*Ptychocheilus lucius* Colorado pikeminnow		G1 SX	Endangered	Endangered	DFG:FP IUCN:VU	
+*Rhinichthys osculus ssp. 1* Amargosa Canyon speckled dace		G5T1Q S1	None	None	AFS:TH BLM:S DFG:SSC	Yes
+*Rhinichthys osculus ssp. 2* Owens speckled dace		G5T1T2Q S1S2	None	None	AFS:TH DFG:SSC	Yes
+*Rhinichthys osculus ssp. 3* Santa Ana speckled dace		G5T1 S1	None	None	AFS:TH DFG:SSC USFS:S	
Rhinichthys osculus ssp. 5 Long Valley speckled dace		G5T1 S1	None	None	AFS:EN	
CATOSTOMIDAE (suckers)						
+*Catostomus fumeiventris* Owens sucker		G3 S3	None	None	DFG:SSC	
+*Catostomus latipinnis* flannelmouth sucker		G3G4 S1	None	None		
+*Catostomus microps* Modoc sucker		G1 S1	Endangered	Endangered	AFS:EN DFG:FP IUCN:EN	
+*Catostomus occidentalis lacusanserinus* Goose Lake sucker		G5T2T3Q S1	None	None	AFS:VU DFG:SSC USFS:S	

Fishes

Species	Comment	Rank	ESA	CESA	Other Status	Notes
CATOSTOMIDAE (suckers)						
Catostomus platyrhynchus mountain sucker		G5 S2S3	None	None	DFG:SSC	
Catostomus rimiculus ssp. 1 Jenny Creek sucker		G5T2Q S1	None	None	AFS:VU	
+*Catostomus santaanae* Santa Ana sucker		G1 S1	Threatened	None	AFS:TH DFG:SSC IUCN:VU USFS:S	
+*Catostomus snyderi* Klamath largescale sucker		G3 S2	None	None	AFS:TH DFG:SSC IUCN:NT	
+*Chasmistes brevirostris* shortnose sucker		G1 S1	Endangered	Endangered	AFS:EN DFG:FP IUCN:EN	
+*Deltistes luxatus* Lost River sucker		G1 S1	Endangered	Endangered	AFS:EN DFG:FP IUCN:EN	
+*Xyrauchen texanus* razorback sucker		G1 S1	Endangered	Endangered	AFS:EN DFG:FP IUCN:EN	
CYPRINODONTIDAE (killifishes)						
+*Cyprinodon macularius* desert pupfish		G1 S1	Endangered	Endangered	AFS:EN	
+*Cyprinodon nevadensis amargosae* Amargosa pupfish		G2T1 S1	None	None	AFS:VU BLM:S DFG:SSC	
+*Cyprinodon nevadensis nevadensis* Saratoga Springs pupfish		G2T1 S1	None	None	AFS:TH DFG:SSC	
+*Cyprinodon nevadensis shoshone* Shoshone pupfish		G2T1 S1	None	None	AFS:EN DFG:SSC	
+*Cyprinodon radiosus* Owens pupfish		G1 S1	Endangered	Endangered	AFS:EN DFG:FP IUCN:EN	
+*Cyprinodon salinus milleri* Cottonball Marsh pupfish		G1QT1 S1	None	Threatened	AFS:TH	
+*Cyprinodon salinus salinus* Salt Creek pupfish		G1T1 S1	None	None	AFS:VU DFG:SSC	
GASTEROSTEIDAE (sticklebacks)						
Gasterosteus aculeatus microcephalus resident threespine stickleback	(South of Pt. Conception only)	G5T2T3 S2S3	None	None	USFS:S	Yes
Gasterosteus aculeatus santaannae Santa Ana (=Shay Creek) threespine stickleback		G5T1Q S1	None	None	AFS:EN USFS:S	Yes
+*Gasterosteus aculeatus williamsoni* unarmored threespine stickleback		G5T1 S1	Endangered	Endangered	AFS:EN DFG:FP USFS:S	Yes
POLYPRIONIDAE (wreckfishes)						
Stereolepis gigas giant sea bass		G3 S1S2	None	None	AFS:VU IUCN:CR	Yes
CENTRARCHIDAE (sunfishes)						
+*Archoplites interruptus* Sacramento perch	(Within native range only)	G3 S1	None	None	AFS:TH DFG:SSC	
EMBIOTOCIDAE (surfperches)						
Hysterocarpus traski lagunae Clear Lake tule perch		G5T2T3 S2S3	None	None		
+*Hysterocarpus traski pomo* Russian River tule perch		G5T2 S2	None	None	AFS:VU DFG:SSC	

Fishes

Species	Comment	Rank	ESA	CESA	Other Status	Notes
EMBIOTOCIDAE (surfperches)						
Hysterocarpus traski traski Sacramento-San Joaquin tule perch		G5T2T3 S2S3	None	None		
GOBIIDAE (gobies)						
+Eucyclogobius newberryi tidewater goby		G3 S2S3	Endangered	None	AFS:EN DFG:SSC IUCN:VU	
COTTIDAE (sculpins)						
+Cottus asperrimus rough sculpin		G2 S2	None	Threatened	AFS:VU DFG:FP IUCN:VU	
Cottus gulosus riffle sculpin		G5 S3S4	None	None		
Cottus klamathensis klamathensis Upper Klamath marbled sculpin		G4T1T2 S1S2	None	None		
+Cottus klamathensis macrops bigeye marbled sculpin		G4T3 S3	None	None	AFS:VU DFG:SSC	
Cottus klamathensis polyporus Lower Klamath marbled sculpin		G4T2T4 S2S4	None	None		
Cottus perplexus reticulate sculpin		G4 S2S3	None	None	DFG:SSC	

Amphibians

Species	Comment	Rank	ESA	CESA	Other Status	Notes
AMBYSTOMATIDAE (mole salamanders)						
+*Ambystoma californiense* California tiger salamander		G2G3 S2S3	Threatened	Candidate Endangered	DFG:SSC IUCN:VU	
+*Ambystoma macrodactylum croceum* Santa Cruz long-toed salamander		G5T1 S1	Endangered	Endangered	DFG:FP	
RHYACOTRITONIDAE (Olympic salamanders)						
+*Rhyacotriton variegatus* southern torrent salamander		G3G4 S2S3	None	None	DFG:SSC IUCN:LC USFS:S	
SALAMANDRIDAE (newts)						
+*Taricha torosa torosa* Coast Range newt	(Monterey Co. south only)	G5T4 S4	None	None	DFG:SSC	
PLETHODONTIDAE (lungless salamanders)						
+*Batrachoseps campi* Inyo Mountains slender salamander		G2 S2	None	None	BLM:S DFG:SSC IUCN:EN USFS:S	
Batrachoseps diabolicus Hell Hollow slender salamander		G2 S2	None	None	IUCN:DD	
+*Batrachoseps gabrieli* San Gabriel Mtns slender salamander		G2 S2	None	None	IUCN:DD USFS:S	
Batrachoseps gregarius gregarious slender salamander		G2G3 S2S3	None	None	IUCN:LC	
Batrachoseps incognitus San Simeon slender salamander		G2G3 S2S3	None	None	IUCN:DD	
Batrachoseps kawia Sequoia slender salamander		G1G2 S1S2	None	None	IUCN:DD	
Batrachoseps luciae Santa Lucia Mountains slender salamander		G2G3 S2S3	None	None	IUCN:LC	
+*Batrachoseps major aridus* desert slender salamander		G4T1 S1	Endangered	Endangered		
Batrachoseps minor lesser slender salamander		G1G2 S1S2	None	None	IUCN:DD	
+*Batrachoseps pacificus* Channel Islands slender salamander		G3QT2 S2	None	None	IUCN:LC	
+*Batrachoseps regius* Kings River slender salamander		G1 S1	None	None	IUCN:VU	
+*Batrachoseps relictus* relictual slender salamander		G2 S2	None	None	DFG:SSC IUCN:DD USFS:S	
+*Batrachoseps robustus* Kern slender salamander		G2 S2	None	None	IUCN:NT USFS:S	
+*Batrachoseps simatus* Kern Canyon slender salamander		G2 S2	None	Threatened	IUCN:VU USFS:S	
+*Batrachoseps sp. 1* Breckenridge Mountain slender salamander		G1Q S1	None	None	DFG:SSC USFS:S	
+*Batrachoseps stebbinsi* Tehachapi slender salamander		G2 S2	None	Threatened	BLM:S IUCN:VU USFS:S	
+*Ensatina eschscholtzii croceator* yellow-blotched salamander		G5T2T3 S2S3	None	None	BLM:S DFG:SSC USFS:S	
+*Ensatina klauberi* large-blotched salamander		G5 S2S3	None	None	DFG:SSC USFS:S	
+*Hydromantes brunus* limestone salamander		G1 S1	None	Threatened	DFG:FP IUCN:VU USFS:S	

Amphibians

Species	Comment	Rank	ESA	CESA	Other Status	Notes
PLETHODONTIDAE (lungless salamanders)						
+Hydromantes platycephalus Mount Lyell salamander		G3 S3	None	None	DFG:SSC IUCN:LC	
+Hydromantes shastae Shasta salamander		G1G2 S1S2	None	Threatened	BLM:S IUCN:VU USFS:S	
+Hydromantes sp. 1 Owens Valley web-toed salamander (AKA Oak Creek salamander)		G1Q S1	None	None	DFG:SSC	
+Plethodon asupak Scott Bar salamander		G1G2 S1S2	None	Threatened	IUCN:VU	Yes
+Plethodon elongatus Del Norte salamander		G4 S3	None	None	DFG:SSC IUCN:NT	
+Plethodon stormi Siskiyou Mountains salamander		G2G3 S1S2	None	Threatened	IUCN:EN USFS:S	
ASCAPHIDAE (tailed frogs)						
+Ascaphus truei western tailed frog		G4 S2S3	None	None	DFG:SSC IUCN:LC	
SCAPHIOPODIDAE (spadefoot toads)						
+Scaphiopus couchii Couch's spadefoot		G5 S2S3	None	None	BLM:S DFG:SSC IUCN:LC	
+Spea hammondii western spadefoot		G3 S3	None	None	BLM:S DFG:SSC IUCN:NT	
BUFONIDAE (true toads)						
+Anaxyrus californicus arroyo toad		G2G3 S2S3	Endangered	None	DFG:SSC IUCN:EN	Yes
+Anaxyrus canorus Yosemite toad		G2 S2	Candidate	None	DFG:SSC IUCN:EN USFS:S	Yes
+Anaxyrus exsul black toad		G1Q S1	None	Threatened	DFG:FP IUCN:VU	Yes
+Incilius alvarius Colorado River toad		G5 SH	None	None	DFG:SSC IUCN:LC	Yes
RANIDAE						
+Lithobates pipiens northern leopard frog	(Native populations only)	G5 S2	None	None	DFG:SSC IUCN:LC USFS:S	Yes
+Lithobates yavapaiensis lowland (=Yavapai, San Sebastian & San Felipe) leopard frog		G4 SX	None	None	BLM:S DFG:SSC IUCN:LC	Yes
+Rana aurora aurora northern red-legged frog		G4T4 S2?	None	None	DFG:SSC USFS:S	Yes
+Rana boylii foothill yellow-legged frog		G3 S2S3	None	None	BLM:S DFG:SSC IUCN:NT USFS:S	
+Rana cascadae Cascades frog		G3G4 S3	None	None	DFG:SSC IUCN:NT USFS:S	
+Rana draytonii California red-legged frog		G4T2T3 S2S3	Threatened	None	DFG:SSC IUCN:VU	Yes
+Rana muscosa Sierra Madre yellow-legged frog		G1 S1	Endangered	None	DFG:SSC IUCN:EN USFS:S	Yes
+Rana pretiosa Oregon spotted frog		G2 S1	Candidate	None	DFG:SSC IUCN:VU USFS:S	

Amphibians

Species	Comment	Rank	ESA	CESA	Other Status	Notes
RANIDAE						
+Rana sierrae Sierra Nevada yellow-legged frog		G1 S1	Candidate	None	DFG:SSC IUCN:EN USFS:S	Yes

Reptiles

Species	Comment	Rank	ESA	CESA	Other Status	Notes
CHELONIIDAE (sea turtles)						
Chelonia mydas green turtle		G3 S1	Threatened	None	IUCN:EN	
KINOSTERNIDAE (musk and mud turtles)						
Kinosternon sonoriense Sonoran mud turtle		G4 SH	None	None	DFG:SSC IUCN:VU	
EMYDIDAE (box and water turtles)						
+Actinemys marmorata western pond turtle		G3G4 S3	None	None	DFG:SSC IUCN:VU	
+Actinemys marmorata marmorata northwestern pond turtle		G3G4T3 S3	None	None	DFG:SSC IUCN:VU USFS:S	
+Actinemys marmorata pallida southwestern pond turtle		G3G4T2T3Q S2	None	None	BLM:S DFG:SSC IUCN:VU USFS:S	
TESTUDINIDAE (land tortoises)						
+Gopherus agassizii desert tortoise		G4 S2	Threatened	Threatened	IUCN:VU	
GEKKONIDAE (geckos)						
+Coleonyx switaki barefoot banded gecko		G4 S1	None	Threatened	IUCN:LC	
+Coleonyx variegatus abbotti San Diego banded gecko		G5T3T4 S2S3	None	None		
CROTAPHYTIDAE (collared & leopard lizards)						
+Gambelia sila blunt-nosed leopard lizard		G1 S1	Endangered	Endangered	DFG:FP IUCN:EN	
PHRYNOSOMATIDAE (spiny lizards)						
+Phrynosoma coronatum (blainvillii population) coast (San Diego) horned lizard		G4G5 S3S4	None	None	DFG:SSC IUCN:LC USFS:S	
+Phrynosoma coronatum (frontale population) coast (California) horned lizard		G4G5 S3S4	None	None	BLM:S DFG:SSC IUCN:LC	
+Phrynosoma mcallii flat-tailed horned lizard		G3 S2	None	None	BLM:S DFG:SSC IUCN:NT USFS:S	
+Sceloporus graciosus graciosus northern sagebrush lizard		G5T5 S3	None	None	BLM:S	
+Uma inornata Coachella Valley fringe-toed lizard		G1Q S1	Threatened	Endangered	IUCN:EN	
+Uma notata Colorado Desert fringe-toed lizard		G3 S2?	None	None	BLM:S DFG:SSC IUCN:NT	
+Uma scoparia Mojave fringe-toed lizard		G3G4 S3S4	None	None	BLM:S DFG:SSC IUCN:LC	
XANTUSIIDAE (night lizards)						
Xantusia gracilis sandstone night lizard		G1 S1	None	None	DFG:SSC IUCN:VU	
+Xantusia riversiana island night lizard		G1 S1	Threatened	None	IUCN:LC	
Xantusia vigilis sierrae Sierra night lizard		G5T1 S1	None	None	DFG:SSC USFS:S	
SCINCIDAE (skinks)						
+Eumeces skiltonianus interparietalis Coronado skink		G5T2T3Q S1S2	None	None	BLM:S DFG:SSC	

Reptiles

Species	Comment	Rank	ESA	CESA	Other Status	Notes
TEIIDAE (whiptails and relatives)						
+Aspidoscelis hyperythra orange-throated whiptail		G5 S2	None	None	DFG:SSC IUCN:LC	
+Aspidoscelis tigris stejnegeri coastal western whiptail		G5T3T4 S2S3	None	None		
ANGUIDAE (alligator lizards)						
+Elgaria panamintina Panamint alligator lizard		G1G2 S1S2	None	None	BLM:S DFG:SSC IUCN:VU USFS:S	
ANNIELLIDAE (Legless lizards)						
+Anniella pulchra nigra black legless lizard		G3G4T2T3Q S2	None	None	DFG:SSC USFS:S	
+Anniella pulchra pulchra silvery legless lizard		G3G4T3T4Q S3	None	None	DFG:SSC USFS:S	
HELODERMATIDAE (venomous lizards)						
+Heloderma suspectum cinctum banded gila monster		G4T4 S1	None	None	BLM:S DFG:SSC IUCN:NT	Yes
BOIDAE (boas)						
+Charina trivirgata rosy boa		G4G5 S3S4	None	None	BLM:S IUCN:LC USFS:S	Yes
+Charina umbratica southern rubber boa		G5T2T3 S2S3	None	Threatened	USFS:S	
COLUBRIDAE (egg-laying snakes)						
Bogertophis rosaliae Baja California rat snake		G4 S1	None	None	DFG:SSC IUCN:LC	
+Diadophis punctatus modestus San Bernardino ringneck snake		G5T2T3 S2?	None	None	USFS:S	
+Diadophis punctatus similis San Diego ringneck snake		G5T2T3 S2?	None	None	USFS:S	
+Lampropeltis zonata (parvirubra) California mountain kingsnake (San Bernardino population)		G4G5 S2?	None	None	DFG:SSC IUCN:LC USFS:S	
+Lampropeltis zonata (pulchra) Califonia mountain kingsnake (San Diego population)		G4G5 S1S2	None	None	DFG:SSC IUCN:LC USFS:S	
+Masticophis flagellum ruddocki San Joaquin whipsnake		G5T2T3 S2?	None	None	DFG:SSC	
+Masticophis lateralis euryxanthus Alameda whipsnake		G4T2 S2	Threatened	Threatened		
Pituophis catenifer pumilus Santa Cruz Island gopher snake		G5T1T2 S1?	None	None	DFG:SSC	
+Salvadora hexalepis virgultea coast patch-nosed snake		G5T3 S2S3	None	None	DFG:SSC	
NATRICIDAE (live-bearing snakes)						
+Thamnophis gigas giant garter snake		G2G3 S2S3	Threatened	Threatened	IUCN:VU	
+Thamnophis hammondii two-striped garter snake		G3 S2	None	None	BLM:S DFG:SSC IUCN:LC USFS:S	
+Thamnophis hammondii ssp. Santa Catalina garter snake		G3T1? S1	None	None		
+Thamnophis sirtalis ssp. south coast garter snake	(Coastal plain from Ventura Co. to San Diego Co., from sea level to about 850 m.)	G5T1T2 S1S2	None	None	DFG:SSC	

Reptiles

Species	Comment	Rank	ESA	CESA	Other Status	Notes
NATRICIDAE (live-bearing snakes)						
+Thamnophis sirtalis tetrataenia San Francisco garter snake		G5T2 S2	Endangered	Endangered	DFG:FP	
VIPERIIDAE (vipers)						
+Crotalus ruber ruber northern red-diamond rattlesnake		G4T3T4 S2?	None	None	DFG:SSC	

Birds

Species	Comment	Rank	ESA	CESA	Other Status	Notes
ANATIDAE (ducks, geese, and swans)						
Anser albifrons elgasi tule greater white-fronted goose	(Nonbreeding/wintering)	G5T2T3 S2S3	None	None	DFG:SSC	
Aythya americana redhead	(Nesting)	G5 SNR	None	None	DFG:SSC IUCN:LC	
Aythya valisineria canvasback	(Nesting)	G5 S2?	None	None	IUCN:LC	
Branta bernicla brant	(Nonbreeding/wintering & staging)	G5 SNR	None	None	DFG:SSC IUCN:LC	
+Branta hutchinsii leucopareia cackling (=Aleutian Canada) goose	(Nonbreeding/wintering)	G5T4 S2	Delisted	None		
Bucephala islandica Barrow's goldeneye	(Nesting)	G5 S1	None	None	DFG:SSC IUCN:LC	
+Dendrocygna bicolor fulvous whistling-duck	(Nesting)	G5 S1	None	None	DFG:SSC IUCN:LC	
+Histrionicus histrionicus harlequin duck	(Nesting)	G4 S2	None	None	BLM:S DFG:SSC IUCN:LC	
PHASIANIDAE (grouse and ptarmigan)						
+Bonasa umbellus ruffed grouse		G5 S4	None	None	DFG:WL IUCN:LC	
+Centrocercus urophasianus greater sage-grouse	(Nesting & leks)	G4 S3	None	None	ABC:WLBCC BLM:S DFG:SSC IUCN:NT USFS:S	
+Dendragapus fuliginosus howardi Mount Pinos sooty grouse		G5T1T2 S1S2	None	None	ABC:WLBCC DFG:SSC	Yes
Tympanuchus phasianellus columbianus Columbian sharp-tailed grouse		G4T3 SX	None	None	DFG:SSC	
ODONTOPHORIDAE (partridge and quail)						
Callipepla californica catalinensis Catalina California quail		G5TNR SNR	None	None	DFG:SSC	
GAVIIDAE (loons)						
Gavia immer common loon	(Nesting)	G5 S1	None	None	DFG:SSC IUCN:LC	
DIOMEDEIDAE (albatross)						
Phoebastria albatrus short-tailed albatross		G1 S1	Endangered	None	ABC:WLBCC DFG:SSC IUCN:VU	
HYDROBATIDAE (storm petrels)						
+Oceanodroma furcata fork-tailed storm-petrel	(Rookery site)	G5 S1	None	None	DFG:SSC IUCN:LC	
+Oceanodroma homochroa ashy storm-petrel	(Rookery site)	G2 S2	None	None	ABC:WLBCC DFG:SSC IUCN:EN USFWS:BCC	
+Oceanodroma melania black storm-petrel	(Rookery site)	G2 S1	None	None	ABC:WLBCC DFG:SSC IUCN:LC	
PELECANIIDAE (pelicans)						
+Pelecanus erythrorhynchos American white pelican	(Nesting colony)	G3 S1	None	None	DFG:SSC IUCN:LC	
+Pelecanus occidentalis californicus California brown pelican	(Nesting colony & communal roosts)	G4T3 S1S2	Endangered	Delisted		
PHALACROCORACIDAE (cormorants)						
+Phalacrocorax auritus double-crested cormorant	(Rookery site)	G5 S3	None	None	DFG:WL IUCN:LC	

Birds

Species	Comment	Rank	ESA	CESA	Other Status	Notes
ARDEIDAE (herons, egrets, and bitterns)						
+*Ardea alba* great egret	(Rookery site)	G5 S4	None	None	CDF:S IUCN:LC	
+*Ardea herodias* great blue heron	(Rookery site)	G5 S4	None	None	CDF:S IUCN:LC	
Botaurus lentiginosus American bittern		G4 S3	None	None	IUCN:LC	
+*Egretta thula* snowy egret	(Rookery site)	G5 S4	None	None	IUCN:LC	
+*Ixobrychus exilis* least bittern	(Nesting)	G5 S1	None	None	DFG:SSC IUCN:LC	
+*Nycticorax nycticorax* black-crowned night heron	(Rookery site)	G5 S3	None	None	BLM:S IUCN:LC	
THRESKIORNITHIDAE (ibises and spoonbills)						
+*Plegadis chihi* white-faced ibis	(Rookery site)	G5 S1	None	None	DFG:WL IUCN:LC	
CICONIIDAE (storks)						
Mycteria americana wood stork		G4 S2?	None	None	DFG:SSC IUCN:LC	
CATHARTIDAE (New World vultures)						
+*Gymnogyps californianus* California condor		G1 S1	Endangered	Endangered	ABC:WLBCC CDF:S IUCN:CR	
ACCIPITRIDAE (hawks, kites, harriers, & eagles)						
+*Accipiter cooperii* Cooper's hawk	(Nesting)	G5 S3	None	None	DFG:WL IUCN:LC	
+*Accipiter gentilis* northern goshawk	(Nesting)	G5 S3	None	None	BLM:S CDF:S DFG:SSC IUCN:LC USFS:S	
+*Accipiter striatus* sharp-shinned hawk	(Nesting)	G5 S3	None	None	DFG:WL	
+*Aquila chrysaetos* golden eagle	(Nesting & nonbreeding/wintering)	G5 S3	None	None	BLM:S CDF:S DFG:FP DFG:WL IUCN:LC USFWS:BCC	
+*Buteo regalis* ferruginous hawk	(Nonbreeding/wintering)	G4 S3S4	None	None	BLM:S DFG:WL IUCN:LC USFWS:BCC	
+*Buteo swainsoni* Swainson's hawk	(Nesting)	G5 S2	None	Threatened	ABC:WLBCC IUCN:LC USFS:S USFWS:BCC	
+*Circus cyaneus* northern harrier	(Nesting)	G5 S3	None	None	DFG:SSC IUCN:LC	
+*Elanus leucurus* white-tailed kite	(Nesting)	G5 S3	None	None	DFG:FP IUCN:LC	
+*Haliaeetus leucocephalus* bald eagle	(Nesting & nonbreeding/wintering)	G5 S2	Delisted	Endangered	CDF:S DFG:FP IUCN:LC	
+*Pandion haliaetus* osprey	(Nesting)	G5 S3	None	None	CDF:S DFG:WL IUCN:LC	
Parabuteo unicinctus Harris' hawk	(Nesting)	G5 SH	None	None	DFG:WL IUCN:LC	

Birds

Species	Comment	Rank	ESA	CESA	Other Status	Notes
FALCONIDAE (falcons)						
+Falco columbarius merlin	(Nonbreeding/wintering)	G5 S3	None	None	DFG:WL IUCN:LC	
+Falco mexicanus prairie falcon	(Nesting)	G5 S3	None	None	DFG:WL IUCN:LC USFWS:BCC	
+Falco peregrinus anatum American peregrine falcon	(Nesting)	G4T3 S2	Delisted	Endangered	CDF:S DFG:FP USFS:S USFWS:BCC	
RALLIDAE (rails, coots, and gallinules)						
+Coturnicops noveboracensis yellow rail		G4 S1S2	None	None	ABC:WLBCC DFG:SSC IUCN:LC USFWS:BCC	
+Laterallus jamaicensis coturniculus California black rail		G4T1 S1	None	Threatened	ABC:WLBCC DFG:FP IUCN:NT USFWS:BCC	Yes
+Rallus longirostris levipes light-footed clapper rail		G5T1T2 S1	Endangered	Endangered	ABC:WLBCC DFG:FP	Yes
+Rallus longirostris obsoletus California clapper rail		G5T1 S1	Endangered	Endangered	ABC:WLBCC DFG:FP	Yes
+Rallus longirostris yumanensis Yuma clapper rail		G5T3 S1	Endangered	Threatened	ABC:WLBCC DFG:FP	Yes
GRUIDAE (cranes)						
Grus canadensis canadensis lesser sandhill crane	(Nonbreeding/wintering)	G5T4 SNR	None	None	DFG:SSC	
+Grus canadensis tabida greater sandhill crane	(Nesting & nonbreeding/wintering)	G5T4 S2	None	Threatened	DFG:FP USFS:S	
CHARADRIIDAE (plovers and relatives)						
+Charadrius alexandrinus nivosus western snowy plover	(Nesting)	G4T3 S2	Threatened	None	ABC:WLBCC DFG:SSC USFWS:BCC	Yes
+Charadrius montanus mountain plover	(Nonbreeding/wintering)	G2 S2?	None	None	ABC:WLBCC BLM:S DFG:SSC IUCN:NT USFWS:BCC	
HAEMATOPODIDAE (oystercatchers)						
Haematopus bachmani black oystercatcher	(Nesting)	G5 S2	None	None	IUCN:LC USFWS:BCC	
SCOLOPACIDAE (sandpipers and relatives)						
Numenius americanus long-billed curlew	(Nesting)	G5 S2	None	None	ABC:WLBCC DFG:WL IUCN:LC USFWS:BCC	
LARIDAE (gulls and terns)						
+Chlidonias niger black tern	(Nesting colony)	G4 S2	None	None	DFG:SSC IUCN:LC	
+Gelochelidon nilotica gull-billed tern	(Nesting colony)	G5 S1	None	None	ABC:WLBCC DFG:SSC IUCN:LC USFWS:BCC	Yes
+Hydroprogne caspia Caspian tern	(Nesting colony)	G5 S4	None	None	IUCN:LC USFWS:BCC	Yes
+Larus californicus California gull	(Nesting colony)	G5 S2	None	None	DFG:WL IUCN:LC	

Birds

Species	Comment	Rank	ESA	CESA	Other Status	Notes
LARIDAE (gulls and terns)						
Leucophaeus atricilla laughing gull	(Nesting colony)	G5 SH	None	None	DFG:WL IUCN:LC	
+Rynchops niger black skimmer	(Nesting colony)	G5 S1S3	None	None	ABC:WLBCC DFG:SSC IUCN:LC USFWS:BCC	
Sterna forsteri Forster's tern	(Nesting colony)	G5 S4	None	None	IUCN:LC	
+Sternula antillarum browni California least tern	(Nesting colony)	G4T2T3Q S2S3	Endangered	Endangered	ABC:WLBCC DFG:FP	Yes
Thalasseus elegans elegant tern	(Nesting colony)	G2 S1	None	None	ABC:WLBCC DFG:WL IUCN:NT USFWS:BCC	Yes
ALCIDAE (auklets, puffins, and relatives)						
+Brachyramphus marmoratus marbled murrelet	(Nesting)	G3G4 S1	Threatened	Endangered	ABC:WLBCC CDF:S IUCN:EN	
+Cerorhinca monocerata rhinoceros auklet	(Nesting colony)	G5 S3	None	None	DFG:WL IUCN:LC	
+Fratercula cirrhata tufted puffin	(Nesting colony)	G5 S2	None	None	DFG:SSC IUCN:LC	
Ptychoramphus aleuticus Cassin's auklet	(Nesting colony)	G4 S2S4	None	None	DFG:SSC IUCN:LC USFWS:BCC	
+Synthliboramphus hypoleucus Xantus' murrelet	(Nesting colony)	G3G4 S3	Candidate	Threatened	ABC:WLBCC IUCN:VU USFWS:BCC	
CUCULIDAE (cuckoos and relatives)						
+Coccyzus americanus occidentalis western yellow-billed cuckoo	(Nesting)	G5T3Q S1	Candidate	Endangered	USFS:S USFWS:BCC	
STRIGIDAE (owls)						
+Asio flammeus short-eared owl	(Nesting)	G5 S3	None	None	ABC:WLBCC DFG:SSC IUCN:LC	
+Asio otus long-eared owl	(Nesting)	G5 S3	None	None	DFG:SSC IUCN:LC	
+Athene cunicularia burrowing owl	(Burrow sites & some wintering sites)	G4 S2	None	None	BLM:S DFG:SSC IUCN:LC USFWS:BCC	Yes
+Micrathene whitneyi elf owl	(Nesting)	G5 S1	None	Endangered	ABC:WLBCC IUCN:LC USFWS:BCC	
Otus flammeolus flammulated owl	(Nesting)	G4 S2S4	None	None	ABC:WLBCC IUCN:LC USFWS:BCC	
+Strix nebulosa great gray owl	(Nesting)	G5 S1	None	Endangered	CDF:S IUCN:LC USFS:S	
Strix occidentalis caurina northern spotted owl		G3T3 S2S3	Threatened	None	ABC:WLBCC CDF:S DFG:SSC IUCN:NT	Yes

Birds

Species	Comment	Rank	ESA	CESA	Other Status	Notes
STRIGIDAE (owls)						
Strix occidentalis occidentalis California spotted owl		G3T3 S3	None	None	ABC:WLBCC BLM:S DFG:SSC IUCN:NT USFS:S USFWS:BCC	Yes
APODIDAE (swifts)						
Chaetura vauxi Vaux's swift	(Nesting)	G5 S3	None	None	DFG:SSC IUCN:LC	
+Cypseloides niger black swift	(Nesting)	G4 S2	None	None	ABC:WLBCC DFG:SSC IUCN:LC USFWS:BCC	
TROCHILIDAE (hummingbirds)						
+Calypte costae Costa's hummingbird	(Nesting)	G5 S3?	None	None	ABC:WLBCC IUCN:LC	
Selasphorus rufus rufous hummingbird	(Nesting)	G5 S1S2	None	None	IUCN:LC USFWS:BCC	
Selasphorus sasin Allen's hummingbird	(Nesting)	G5 SNR	None	None	ABC:WLBCC IUCN:LC	
PICIDAE (woodpeckers)						
+Colaptes chrysoides gilded flicker		G5 S1	None	Endangered	ABC:WLBCC IUCN:LC USFWS:BCC	
Melanerpes lewis Lewis' woodpecker	(Nesting)	G4 SNR	None	None	ABC:WLBCC IUCN:LC USFWS:BCC	
+Melanerpes uropygialis Gila woodpecker		G5 S1S2	None	Endangered	IUCN:LC USFWS:BCC	
Picoides albolarvatus White-headed woodpecker	(Nesting)	G4 SNR	None	None	ABC:WLBCC IUCN:LC USFWS:BCC	
Picoides nuttallii Nuttall's woodpecker	(Nesting)	G5 SNR	None	None	ABC:WLBCC IUCN:LC	
Sphyrapicus ruber red-breasted sapsucker	(Nesting)	G5 SNR	None	None		
TYRANNIDAE (tyrant flycatchers)						
Contopus cooperi olive-sided flycatcher	(Nesting)	G4 S4	None	None	ABC:WLBCC DFG:SSC IUCN:NT USFWS:BCC	
+Empidonax traillii willow flycatcher	(Nesting)	G5 S1S2	None	Endangered	ABC:WLBCC IUCN:LC USFS:S	Yes
Empidonax traillii brewsteri little willow flycatcher	(Nesting)	G5T3T4 S1S2	None	Endangered	ABC:WLBCC	Yes
+Empidonax traillii extimus southwestern willow flycatcher	(Nesting)	G5T1T2 S1	Endangered	Endangered	ABC:WLBCC	Yes
+Myiarchus tyrannulus brown-crested flycatcher	(Nesting)	G5 S2S3	None	None	DFG:WL IUCN:LC	
+Pyrocephalus rubinus vermilion flycatcher	(Nesting)	G5 S2S3	None	None	DFG:SSC IUCN:LC	
LANIIDAE (shrikes)						
+Lanius ludovicianus loggerhead shrike	(Nesting)	G4 S4	None	None	DFG:SSC IUCN:LC USFWS:BCC	
Lanius ludovicianus anthonyi Island loggerhead shrike		G4T1 S1	None	None	DFG:SSC	

Birds

Species	Comment	Rank	ESA	CESA	Other Status	Notes
LANIIDAE (shrikes)						
+Lanius ludovicianus mearnsi San Clemente loggerhead shrike		G4T1Q S1	Endangered	None	DFG:SSC	Yes
VIREONIDAE (vireos)						
+Vireo bellii arizonae Arizona bell's vireo	(Nesting)	G5T4 S1	None	Endangered	ABC:WLBCC IUCN:NT USFWS:BCC	Yes
+Vireo bellii pusillus least Bell's vireo	(Nesting)	G5T2 S2	Endangered	Endangered	ABC:WLBCC IUCN:NT USFWS:BCC	Yes
Vireo huttoni unitti Catalina Hutton's vireo		G5TNR SNR	None	None	DFG:SSC	
+Vireo vicinior gray vireo	(Nesting)	G4 S2	None	None	ABC:WLBCC BLM:S DFG:SSC IUCN:LC USFWS:BCC	
CORVIDAE (jays, crows, and magpies)						
Aphelocoma californica cana Eagle Mountain scrub-jay		G5T1T2 S1S2	None	None	DFG:WL	
Aphelocoma insularis Island scrub-jay		G1 S1	None	None	ABC:WLBCC IUCN:NT USFWS:BCC	
Pica nuttalli yellow-billed magpie	(Nesting & communal roosts)	G3G4 S3S4	None	None	ABC:WLBCC IUCN:LC	
ALAUDIDAE (larks)						
+Eremophila alpestris actia California horned lark		G5T3Q S3	None	None	DFG:WL IUCN:LC	
HIRUNDINIDAE (swallows)						
+Progne subis purple martin	(Nesting)	G5 S3	None	None	DFG:SSC IUCN:LC	
+Riparia riparia bank swallow	(Nesting)	G5 S2S3	None	Threatened	IUCN:LC	
PARIDAE (titmice and relatives)						
Baeolophus inornatus oak titmouse	(Nesting)	G5 S3?	None	None	ABC:WLBCC IUCN:LC	
Poecile atricapillus black-capped chickadee		G5 S3	None	None	DFG:WL IUCN:LC	
TROGLODYTIDAE (wrens)						
+Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	(San Diego & Orange Counties only)	G5T3Q S3	None	None	DFG:SSC USFS:S USFWS:BCC	Yes
Cistothorus palustris clarkae Clark's marsh wren		G5TNR SNR	None	None	DFG:SSC	
Thryomanes bewickii leucophrys San Clemente Bewick's wren		G5TX SX	None	None	DFG:SSC	
SYLVIIDAE (gnatcatchers)						
+Polioptila californica californica coastal California gnatcatcher		G3T2 S2	Threatened	None	ABC:WLBCC DFG:SSC	Yes
+Polioptila melanura black-tailed gnatcatcher		G5 S4	None	None	IUCN:LC	
MIMIDAE (mockingbirds and thrashers)						
+Toxostoma bendirei Bendire's thrasher		G4G5 S3	None	None	ABC:WLBCC BLM:S DFG:SSC IUCN:VU USFWS:BCC	

Birds

Species	Comment	Rank	ESA	CESA	Other Status	Notes
MIMIDAE (mockingbirds and thrashers)						
+Toxostoma crissale Crissal thrasher		G5 S3	None	None	DFG:SSC IUCN:LC USFWS:BCC	
+Toxostoma lecontei Le Conte's thrasher		G3 S3	None	None	ABC:WLBCC BLM:S DFG:SSC IUCN:LC USFWS:BCC	Yes
PARULIDAE (wood-warblers)						
Dendroica occidentalis hermit warbler	(Nesting)	G4G5 S3?	None	None	ABC:WLBCC IUCN:LC	
+Dendroica petechia brewsteri yellow warbler	(Nesting)	G5T3? S2	None	None	DFG:SSC	
+Dendroica petechia sonorana Sonoran yellow warbler	(Nesting)	G5T2T3 S1	None	None	DFG:SSC USFWS:BCC	
+Geothlypis trichas sinuosa saltmarsh common yellowthroat		G5T2 S2	None	None	DFG:SSC USFWS:BCC	Yes
+Icteria virens yellow-breasted chat	(Nesting)	G5 S3	None	None	DFG:SSC IUCN:LC	
+Vermivora luciae Lucy's warbler	(Nesting)	G5 S2S3	None	None	ABC:WLBCC DFG:SSC IUCN:LC	
+Vermivora virginiae Virginia's warbler	(Nesting)	G5 S2S3	None	None	ABC:WLBCC DFG:WL IUCN:LC USFWS:BCC	
EMBERIZIDAE (sparrows, buntings, warblers, & relatives)						
+Aimophila ruficeps canescens southern California rufous-crowned sparrow		G5T2T4 S2S3	None	None	DFG:WL	
Aimophila ruficeps obscura Santa Cruz Island rufous-crowned sparrow		G5TNR SNR	None	None	DFG:SSC	
+Ammodramus savannarum grasshopper sparrow	(Nesting)	G5 S2	None	None	DFG:SSC IUCN:LC	
+Amphispiza belli belli Bell's sage sparrow	(Nesting)	G5T2T4 S2?	None	None	ABC:WLBCC DFG:WL USFWS:BCC	Yes
+Amphispiza belli clementeae San Clemente sage sparrow		G5T1Q S1	Threatened	None	ABC:WLBCC DFG:SSC USFWS:BCC	Yes
Chondestes grammacus lark sparrow	(Nesting)	G5 SNR	None	None	IUCN:LC	
+Junco hyemalis caniceps gray-headed junco	(Nesting)	G5T5 S1	None	None	DFG:WL	
Melospiza melodia song sparrow ("Modesto" population)		G5 SNR	None	None	DFG:SSC	
Melospiza melodia graminea, sensu Channel Island song sparrow		G5TNRQ SNR	None	None	DFG:SSC	Yes
+Melospiza melodia maxillaris Suisun song sparrow		G5T2 S2	None	None	DFG:SSC USFWS:BCC	
+Melospiza melodia pusillula Alameda song sparrow		G5T2? S2?	None	None	DFG:SSC USFWS:BCC	
+Melospiza melodia samuelis San Pablo song sparrow		G5T2? S2?	None	None	DFG:SSC USFWS:BCC	
Passerculus sandwichensis alaudinus Bryant's savannah sparrow		G5TNR SNR	None	None	DFG:SSC	
+Passerculus sandwichensis beldingi Belding's savannah sparrow		G5T3 S3	None	Endangered		

Birds

Species	Comment	Rank	ESA	CESA	Other Status	Notes
EMBERIZIDAE (sparrows, buntings, warblers, & relatives)						
Passerculus sandwichensis rostratus large-billed savannah sparrow	(Nonbreeding/wintering)	G5T2T3 S2?	None	None	DFG:SSC	
Pipilo aberti Abert's towhee		G3G4 S2?	None	None	ABC:WLBCC IUCN:LC	
+Pipilo crissalis eremophilus Inyo California towhee		G4G5T1 S1	Threatened	Endangered		
Pipilo maculatus clementae San Clemente spotted towhee		G5T1 S1	None	None	DFG:SSC USFWS:BCC	
+Piranga flava hepatic tanager	(Nesting)	G5 S1	None	None	DFG:WL IUCN:LC	Yes
+Piranga rubra summer tanager	(Nesting)	G5 S2	None	None	DFG:SSC IUCN:LC	Yes
Pooecetes gramineus affinis Oregon vesper sparrow	(Nonbreeding/wintering)	G5T? SNR	None	None	DFG:SSC	
Spizella atrogularis black-chinned sparrow	(Nesting)	G5 S3	None	None	ABC:WLBCC IUCN:LC USFWS:BCC	
+Spizella breweri Brewer's sparrow	(Nesting)	G5 S3	None	None	ABC:WLBCC IUCN:LC USFWS:BCC	
Spizella passerina chipping sparrow	(Nesting)	G5 S3S4	None	None	IUCN:LC	
CARDINALIDAE (cardinals)						
+Cardinalis cardinalis northern cardinal		G5 S1	None	None	DFG:WL IUCN:LC	
ICTERIDAE (blackbirds)						
Agelaius phoeniceus aciculatus Kern red-winged blackbird		G5TNR SNR	None	None	DFG:SSC	
+Agelaius tricolor tricolored blackbird	(Nesting colony)	G2G3 S2	None	None	ABC:WLBCC BLM:S DFG:SSC IUCN:EN USFWS:BCC	
+Xanthocephalus xanthocephalus yellow-headed blackbird	(Nesting)	G5 S3S4	None	None	DFG:SSC IUCN:LC	
FRINGILLIDAE (finches and relatives)						
+Carduelis lawrencei Lawrence's goldfinch	(Nesting)	G3G4 S3	None	None	ABC:WLBCC IUCN:LC USFWS:BCC	

Mammals

Species	Comment	Rank	ESA	CESA	Other Status	Notes
TALPIDAE (moles)						
+*Scapanus latimanus insularis* Angel Island mole		G5T1 S1	None	None		
+*Scapanus latimanus parvus* Alameda Island mole		G5T1Q S1	None	None	DFG:SSC	
SORICIDAE (shrews)						
+*Sorex lyelli* Mount Lyell shrew		G2G3 S2S3	None	None	DFG:SSC IUCN:LC	
+*Sorex ornatus relictus* Buena Vista Lake shrew		G5T1 S1	Endangered	None	DFG:SSC	
Sorex ornatus salarius Monterey shrew		G5T1T2 S1S2	None	None	DFG:SSC	
+*Sorex ornatus salicornicus* southern California saltmarsh shrew		G5T1? S1	None	None	DFG:SSC	
+*Sorex ornatus sinuosus* Suisun shrew		G5T1 S1	None	None	DFG:SSC	
+*Sorex ornatus willetti* Santa Catalina shrew		G5T1 S1	None	None	DFG:SSC	
+*Sorex vagrans halicoetes* salt-marsh wandering shrew		G5T1 S1	None	None	DFG:SSC	
Sorex vagrans paludivagus Monterey vagrant shrew		G5T1 S1	None	None		
PHYLLOSTOMIDAE (leaf-nosed bats)						
+*Choeronycteris mexicana* Mexican long-tongued bat		G4 S1	None	None	DFG:SSC IUCN:NT WBWG:H	
Leptonycteris yerbabuenae lesser long-nosed bat		G4 S1	Endangered	None	IUCN:VU	Yes
+*Macrotus californicus* California leaf-nosed bat		G4 S2S3	None	None	BLM:S DFG:SSC IUCN:LC USFS:S WBWG:H	
VESPERTILIONIDAE (evening bats)						
+*Antrozous pallidus* pallid bat		G5 S3	None	None	BLM:S DFG:SSC IUCN:LC USFS:S WBWG:H	
+*Corynorhinus townsendii* Townsend's big-eared bat		G4 S2S3	None	None	BLM:S DFG:SSC IUCN:LC USFS:S WBWG:H	
+*Euderma maculatum* spotted bat		G4 S2S3	None	None	BLM:S DFG:SSC IUCN:LC WBWG:H	
+*Lasionycteris noctivagans* silver-haired bat		G5 S3S4	None	None	IUCN:LC WBWG:M	
+*Lasiurus blossevillii* western red bat		G5 S3?	None	None	DFG:SSC IUCN:LC USFS:S WBWG:H	Yes
+*Lasiurus cinereus* hoary bat		G5 S4?	None	None	IUCN:LC WBWG:M	
+*Lasiurus xanthinus* western yellow bat		G5 S3	None	None	DFG:SSC IUCN:LC WBWG:H	Yes

Mammals

Species	Comment	Rank	ESA	CESA	Other Status	Notes
VESPERTILIONIDAE (evening bats)						
+*Myotis ciliolabrum* western small-footed myotis		G5 S2S3	None	None	BLM:S IUCN:LC WBWG:M	
+*Myotis evotis* long-eared myotis		G5 S4?	None	None	BLM:S IUCN:LC WBWG:M	
Myotis lucifugus little brown bat	(San Bernardino Mts population)	G5 S2S3	None	None	IUCN:LC WBWG:M	
+*Myotis occultus* Arizona Myotis		G3G4 S2S3	None	None	DFG:SSC IUCN:LC WBWG:M	
+*Myotis thysanodes* fringed myotis		G4G5 S4	None	None	BLM:S IUCN:LC WBWG:H	
+*Myotis velifer* cave myotis		G5 S1	None	None	BLM:S DFG:SSC IUCN:LC WBWG:M	
+*Myotis volans* long-legged myotis		G5 S4?	None	None	IUCN:LC WBWG:H	
+*Myotis yumanensis* Yuma myotis		G5 S4?	None	None	BLM:S IUCN:LC WBWG:LM	
MOLOSSIDAE (free-tailed bats)						
+*Eumops perotis californicus* western mastiff bat		G5T4 S3?	None	None	BLM:S DFG:SSC WBWG:H	
+*Nyctinomops femorosaccus* pocketed free-tailed bat		G4 S2S3	None	None	DFG:SSC IUCN:LC WBWG:M	
+*Nyctinomops macrotis* big free-tailed bat		G5 S2	None	None	DFG:SSC IUCN:LC WBWG:MH	
OCHOTONIDAE (pikas)						
+*Ochotona princeps albata* Mt. Whitney pika		G5T2T4 S2S4	None	None		
+*Ochotona princeps muiri* Yosemite pika		G5T2T4 S2S4	None	None		
+*Ochotona princeps schisticeps* gray-headed pika		G5T2T4 S2S4	None	None	IUCN:NT	
+*Ochotona princeps sheltoni* White Mountains Pika		G5T1T2 S1S2	None	None	IUCN:VU	
+*Ochotona princeps taylori* Taylor pika		G5T2T4 S2S4	None	None		
LEPORIDAE (rabbits and hares)						
+*Brachylagus idahoensis* pygmy rabbit		G4 S3	None	None	BLM:S DFG:SSC IUCN:LC	
+*Lepus americanus klamathensis* Oregon snowshoe hare		G5T3T4Q S2?	None	None	DFG:SSC	
+*Lepus americanus tahoensis* Sierra Nevada snowshoe hare		G5T3T4Q S2?	None	None	DFG:SSC	
+*Lepus californicus bennettii* San Diego black-tailed jackrabbit		G5T3? S3?	None	None	DFG:SSC	
+*Lepus townsendii townsendii* western white-tailed jackrabbit		G5T5 S3?	None	None	DFG:SSC	
+*Sylvilagus bachmani riparius* riparian brush rabbit		G5T1 S1	Endangered	Endangered		

Mammals

Species	Comment	Rank	ESA	CESA	Other Status	Notes
APLODONTIDAE (mountain beavers)						
+Aplodontia rufa californica Sierra Nevada mountain beaver		G5T3T4 S2S3	None	None	DFG:SSC	
+Aplodontia rufa nigra Point Arena mountain beaver		G5T1 S1	Endangered	None	DFG:SSC	
+Aplodontia rufa phaea Point Reyes mountain beaver		G5T2 S2	None	None	DFG:SSC	
SCIURIDAE (squirrels and relatives)						
+Ammospermophilus nelsoni Nelson's antelope squirrel		G2 S2	None	Threatened	IUCN:EN	
+Glaucomys sabrinus californicus San Bernardino flying squirrel		G5T2T3 S2S3	None	None	DFG:SSC USFS:S	
+Neotamias panamintinus acrus Kingston Mountain chipmunk		G4T1T2 S1S2	None	None		
+Neotamias speciosus callipeplus Mount Pinos chipmunk		G4T1T2 S1S2	None	None	USFS:S	
+Neotamias speciosus speciosus lodgepole chipmunk		G4T2T3 S2S3	None	None		
Spermophilus lateralis bernardinus San Bernardino ground squirrel		G5T1 S1	None	None		
+Spermophilus mohavensis Mohave ground squirrel		G2G3 S2S3	None	Threatened	IUCN:VU	
+Spermophilus tereticaudus chlorus Palm Springs round-tailed ground squirrel		G5T1T2 S1S2	Candidate	None	DFG:SSC	
GEOMYIDAE (pocket gophers)						
Thomomys bottae operarius Owens Lake pocket gopher		G5T1? S1?	None	None		
HETEROMYIDAE (kangaroo rats, pockets mice, & kangaroo mice)						
+Chaetodipus californicus femoralis Dulzura pocket mouse		G5T3 S2?	None	None	DFG:SSC	
+Chaetodipus fallax fallax northwestern San Diego pocket mouse		G5T3 S2S3	None	None	DFG:SSC	Yes
+Chaetodipus fallax pallidus pallid San Diego pocket mouse		G5T3 S3	None	None	DFG:SSC	Yes
+Dipodomys californicus eximius Marysville California kangaroo rat		G4T1 S1	None	None	BLM:S DFG:SSC	
+Dipodomys heermanni berkeleyensis Berkeley kangaroo rat		G3G4T1 S1	None	None		
+Dipodomys heermanni dixoni Merced kangaroo rat		G3G4T2T3 S2S3	None	None		
+Dipodomys heermanni morroensis Morro Bay kangaroo rat		G3G4T1 S1	Endangered	Endangered	DFG:FP	
+Dipodomys ingens giant kangaroo rat		G2 S2	Endangered	Endangered	IUCN:EN	
+Dipodomys merriami collinus Earthquake Merriam's kangaroo rat		G5T1T2 S1S2	None	None		
+Dipodomys merriami parvus San Bernardino kangaroo rat		G5T1 S1	Endangered	None	DFG:SSC	
+Dipodomys nitratoides brevinasus short-nosed kangaroo rat		G3T1T2 S1S2	None	None	BLM:S DFG:SSC IUCN:VU	
+Dipodomys nitratoides exilis Fresno kangaroo rat		G3T1 S1	Endangered	Endangered	IUCN:VU	
+Dipodomys nitratoides nitratoides Tipton kangaroo rat		G3T1 S1	Endangered	Endangered	IUCN:VU	
+Dipodomys panamintinus argusensis Argus Mountains kangaroo rat		G5T1T3 S1S3	None	None		

Mammals

Species	Comment	Rank	ESA	CESA	Other Status	Notes
HETEROMYIDAE (kangaroo rats, pockets mice, & kangaroo mice)						
+Dipodomys panamintinus panamintinus Panamint kangaroo rat		G5T3 S3	None	None		
+Dipodomys stephensi Stephens' kangaroo rat		G2 S2	Endangered	Threatened	IUCN:EN	
+Dipodomys venustus elephantinus big-eared kangaroo rat		G3G4T2 S2	None	None	DFG:SSC	
+Dipodomys venustus venustus Santa Cruz kangaroo rat		G4T1 S1	None	None		
+Perognathus alticolus alticolus white-eared pocket mouse		G1G2TH SH	None	None	BLM:S DFG:SSC IUCN:EN USFS:S	Yes
+Perognathus alticolus inexpectatus Tehachapi pocket mouse		G1G2T1T2 S1S2	None	None	DFG:SSC IUCN:EN USFS:S	Yes
+Perognathus inornatus inornatus San Joaquin pocket mouse		G4T2T3 S2S3	None	None	BLM:S	
Perognathus inornatus neglectus McKittrick pocket mouse		G4T2T3 S2S3	None	None		
+Perognathus inornatus psammophilus Salinas pocket mouse		G4T2? S2?	None	None	DFG:SSC	
+Perognathus longimembris bangsi Palm Springs pocket mouse		G5T2T3 S2S3	None	None	BLM:S DFG:SSC	
+Perognathus longimembris brevinasus Los Angeles pocket mouse		G5T1T2 S1S2	None	None	DFG:SSC USFS:S	
+Perognathus longimembris internationalis Jacumba pocket mouse		G5T2T3 S1S2	None	None	DFG:SSC	
+Perognathus longimembris pacificus Pacific pocket mouse		G5T1 S1	Endangered	None	DFG:SSC	
Perognathus longimembris salinensis Saline Valley pocket mouse		G5T1 S1	None	None		
Perognathus longimembris tularensis Tulare pocket mouse		G5T1 S1	None	None		
+Perognathus parvus xanthonotus yellow-eared pocket mouse		G5T2T3 S1S2	None	None	BLM:S	
MURIDAE (mice, rats, and voles)						
+Arborimus albipes white-footed vole		G3G4 S2S3	None	None	DFG:SSC IUCN:LC	
+Arborimus pomo Sonoma tree vole		G3 S3	None	None	DFG:SSC IUCN:NT	
Microtus californicus halophilus Monterey vole		G5T1 S1	None	None		
+Microtus californicus mohavensis Mohave river vole		G5T1 S1	None	None	DFG:SSC	
+Microtus californicus sanpabloensis San Pablo vole		G5T1T2 S1S2	None	None	DFG:SSC	
+Microtus californicus scirpensis Amargosa vole		G5T1 S1	Endangered	Endangered		
+Microtus californicus stephensi south coast marsh vole		G5T1T2 S1S2	None	None	DFG:SSC	
+Microtus californicus vallicola Owens Valley vole		G5T1 S1	None	None	BLM:S DFG:SSC	
+Neotoma albigula venusta Colorado Valley woodrat		G5T3T4 S1S2	None	None		
+Neotoma fuscipes annectens San Francisco dusky-footed woodrat		G5T2T3 S2S3	None	None	DFG:SSC	

Mammals

Species	Comment	Rank	ESA	CESA	Other Status	Notes
MURIDAE (mice, rats, and voles)						
+Neotoma fuscipes riparia riparian (=San Joaquin Valley) woodrat		G5T1Q S1	Endangered	None	DFG:SSC	Yes
+Neotoma lepida intermedia San Diego desert woodrat		G5T3? S3?	None	None	DFG:SSC	
+Neotoma macrotis luciana Monterey dusky-footed woodrat		G5T3? S3?	None	None	DFG:SSC IUCN:DD	
+Onychomys torridus ramona southern grasshopper mouse		G5T3? S3?	None	None	DFG:SSC	
+Onychomys torridus tularensis Tulare grasshopper mouse		G5T1T2 S1S2	None	None	BLM:S DFG:SSC	
+Peromyscus maniculatus anacapae Anacapa Island deer mouse		G5T1T2 S1S2	None	None	DFG:SSC	
Peromyscus maniculatus clementis San Clemente deer mouse		G5T1T2 S1S2	None	None	DFG:SSC	
+Reithrodontomys megalotis distichlis Salinas harvest mouse		G5T1 S1	None	None		
+Reithrodontomys megalotis santacruzae Santa Cruz harvest mouse		G5T1Q S1	None	None		Yes
+Reithrodontomys raviventris salt-marsh harvest mouse		G1G2 S1S2	Endangered	Endangered	DFG:FP IUCN:EN	
+Sigmodon arizonae plenus Colorado River cotton rat		G5T2T3 SH	None	None	DFG:SSC	
+Sigmodon hispidus eremicus Yuma hispid cotton rat		G5T2T3 S2	None	None	DFG:SSC	
DIPODIDAE (jumping mice)						
+Zapus trinotatus orarius Point Reyes jumping mouse		G5T1T3Q S1S3	None	None	DFG:SSC	
CANIDAE (foxes, wolves, and coyotes)						
Urocyon littoralis island fox	(Mapped by subspecies)	G1 S1	None	Threatened	IUCN:CR	Yes
+Urocyon littoralis catalinae Santa Catalina Island fox		G1T1 S1	Endangered	Threatened	IUCN:CR	Yes
+Urocyon littoralis clementae San Clemente Island fox		G1T1 S1	None	Threatened	IUCN:CR	Yes
+Urocyon littoralis dickeyi San Nicolas Island fox		G1T1 S1	None	Threatened	IUCN:CR	Yes
+Urocyon littoralis littoralis San Miguel Island fox		G1T1 S1	Endangered	Threatened	IUCN:CR	Yes
+Urocyon littoralis santacruzae Santa Cruz Island fox		G1T1 S1	Endangered	Threatened	IUCN:CR	Yes
+Urocyon littoralis santarosae Santa Rosa Island fox		G1T1 S1	Endangered	Threatened	IUCN:CR	Yes
+Vulpes macrotis mutica San Joaquin kit fox		G4T2T3 S2S3	Endangered	Threatened		
+Vulpes vulpes necator Sierra Nevada red fox		G5T3 S1	None	Threatened	USFS:S	
MUSTELIDAE (weasels and relatives)						
+Enhydra lutris nereis southern sea otter		G4T2 S2	Threatened	None	DFG:FP IUCN:EN MMC:SSC	Yes
+Gulo gulo California wolverine		G4 S2	None	Threatened	DFG:FP IUCN:NT USFS:S	
+Lontra canadensis sonora southwestern river otter		G5T1 S1	None	None	BLM:S DFG:SSC	
+Martes americana American (=pine) marten		G5 S3S4	None	None	IUCN:LC USFS:S	

Mammals

Species	Comment	Rank	ESA	CESA	Other Status	Notes
MUSTELIDAE (weasels and relatives)						
+Martes americana humboldtensis Humboldt marten		G5T2T3 S2S3	None	None	DFG:SSC USFS:S	
+Martes americana sierrae Sierra marten		G5T3T4 S3S4	None	None	USFS:S	
+Martes pennanti (pacifica) DPS Pacific fisher		G5 S2S3	Candidate	Candidate Threatened	BLM:S DFG:SSC USFS:S	Yes
+Taxidea taxus American badger		G5 S4	None	None	DFG:SSC IUCN:LC	
MEPHITIDAE (skunks)						
+Spilogale gracilis amphiala Channel Islands spotted skunk		G5T3 S3	None	None	DFG:SSC	
FELIDAE (cats and relatives)						
Lynx rufus pallescens pallid bobcat		G5T3? S3?	None	None		
+Puma concolor browni Yuma mountain lion		G5T1T2Q S1	None	None	DFG:SSC	
OTARIIDAE (sea lions and fur seals)						
+Arctocephalus townsendi Guadalupe fur-seal		G1 S1	Threatened	Threatened	DFG:FP IUCN:NT	
+Callorhinus ursinus northern fur-seal		G3 S1	None	None	IUCN:VU	
+Eumetopias jubatus Steller (=northern) sea-lion		G3 S2	Threatened	None	IUCN:EN MMC:SSC	
BOVIDAE (sheep and relatives)						
+Ovis canadensis nelsoni Nelson's bighorn sheep		G4T4 S3	None	None	BLM:S USFS:S	
+Ovis canadensis nelsoni DPS peninsular bighorn sheep		G4T3Q S1	Endangered	Threatened	DFG:FP	Yes
+Ovis canadensis sierrae Sierra Nevada bighorn sheep		G4T1 S1	Endangered	Endangered	DFG:FP	

End Notes

Invertebrates

INSECTA, Order Coleoptera (beetles)

Trigonoscuta sp.

Doyen's trigonoscuta dune weevil

1) Sometimes referred to as "Trigonoscuta doyeni" which is an unpublished manuscript name.

Fishes

ACIPENSERIDAE (sturgeon)

Acipenser medirostris

green sturgeon

1) Federal listing includes all spawning populations south of the Eel River.
2) The NMFS "Special Concern" designation refers to the northern DPS which includes spawning populations north of the Eel River (inclusive).

SALMONIDAE (trout & salmon)

Oncorhynchus kisutch

coho salmon - central California coast ESU

1) The federal listing is limited to naturally spawning populations in streams between Punta Gorda, Humboldt Co. and the San Lorenzo River, Santa Cruz Co.
2) The state listing is limited to Coho south of Punta Gorda, Humboldt Co.

coho salmon - southern Oregon / northern California ESU

1) Federal listing refers to populations between Cape Blanco, Oregon & Punta Gorda, Humboldt Co. California.
2) State listing refers to populations between the Oregon border & Punta Gorda, Humboldt Co. California.

Oncorhynchus mykiss irideus

southern steelhead - southern California ESU

1) The federal designation refers to fish in the coastal basins from the Santa Maria River (inclusive), south to the U.S. - Mexico Border.
2) The DFG "Species of Special Concern" designation refers to southern steelhead trout.

steelhead - central California coast ESU

1) Federal listing includes all runs in coastal basins from the Russian River in Sonoma County, south to Soquel Creek in Santa Cruz County, inclusive. It includes the San Francisco and San Pablo Bay basins, but excludes the Sacramento-San Joaquin River basins.

steelhead - Central Valley ESU

1) Federal listing includes all runs in the Sacramento & San Joaquin Rivers and their tributaries.

steelhead - Klamath Mountains Province ESU

1) This ESU includes all naturally spawned populations residing in streams between the Elk River in Oregon and the Klamath River in California, inclusive.
2) The SSC designation refers only to the California portion of the ESU and refers only to the summer-run.

steelhead - northern California ESU

1) The federal designation refers to naturally spawned populations residing below impassable barriers in coastal basins from Redwood Creek in Humboldt Co. to, and including, the Gualala River in Mendocino Co.
2) The DFG "Species of Special Concern" designation refers only to the summer-run.

steelhead - south/central California coast ESU

1) Federal listing includes all runs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River.
2) The DFG "Species of Special Concern" designation refers to southern steelhead trout.

summer-run steelhead trout

1) Summer-run steelhead are part of both the Klamath Mountains Province ESU and the Northern California ESU.

Oncorhynchus tshawytscha

chinook salmon - California coastal ESU

1) Originally proposed as part of a larger Southern Oregon & California Coastal ESU. This new ESU was revised to include only naturally spawned coastal spring & fall-run chinook salmon between Redwood Creek in Humboldt Co & the Russian River in Sonoma Co.

chinook salmon - Central Valley fall / late fall-run ESU

1) The Central Valley fall/late fall-run ESU refers to populations spawning in the Sacramento & San Joaquin Rivers and their tributaries.
2) The DFG "Species of Special Concern" designation refers only to the fall-run.

Fishes

SALMONIDAE (trout & salmon)

Oncorhynchus tshawytscha spring-run

spring-run chinook salmon

1) Federal listing refers to the Central Valley Spring-run ESU. It includes populations spawning in the Sacramento River & its tributaries.

OSMERIDAE (smelt)

Spirinchus thaleichthys

longfin smelt

1) AFS Threatened designation take from: Musick, J.T. et al. 2000. "Marine, Estuarine, and Diadromous Fish Stocks at Risk of Extinction in North America (Exclusive of Pacific Salmonids). Fisheries 25(11):6-30.
2) At its March 4, 2009 meeting, the Fish and Game Commission made a finding that the petitioned action to list the longfin smelt as threatened is warranted. This determination still needs to be finalized by the Office of Administrative Law.

CYPRINIDAE (minnows and carp)

Lavinia symmetricus ssp. 1

San Joaquin roach

1) Current taxonomy considers this taxon to be a population of Lavinia symmetricus symmetricus, the Sacramento-San Joaquin roach.

Rhinichthys osculus ssp. 1

Amargosa Canyon speckled dace

1) Current taxonomy considers this taxon to be a distinct population of Rhinichthys osculus nevadensis.

Rhinichthys osculus ssp. 2

Owens speckled dace

1) Current taxonomy includes the Benton Valley speckled dace (formerly ssp 4) with the Owens speckled dace.

GASTEROSTEIDAE (sticklebacks)

Gasterosteus aculeatus microcephalus

resident threespine stickleback

1) The U.S. Forest Service "Sensitive" designation refers to the full species.

Gasterosteus aculeatus santaannae

Santa Ana (=Shay Creek) threespine stickleback

1) The U.S. Forest Service "Sensitive" designation refers to the full species.

Gasterosteus aculeatus williamsoni

unarmored threespine stickleback

1) The U.S. Forest Service "Sensitive" designation refer to the full species.

POLYPRIONIDAE (wreckfishes)

Stereolepis gigas

giant sea bass

1) AFS Vulnerable designation taken from: Musick, J.T. et al. 2000. "Marine, Estuarine, and Diadromous Fish Stocks at Risk of Extinction in North America (Exclusive of Pacific Salmonids). Fisheries 25(11):6-30.

Amphibians

PLETHODONTIDAE (lungless salamanders)

Plethodon asupak

Scott Bar salamander

1) Newly described species from what was part of the range of Plethodon stormi.
2) Since this newly described species was formerly considered to be a subpopulation of Plethodon stormi, and since Plethodon stormi is listed as Threatened under the California Endangered Species Act (CESA), Plethodon asupak retains the designation as a Threatened species under CESA.

BUFONIDAE (true toads)

Anaxyrus californicus

arroyo toad

1) Formerly Bufo microscaphus californicus, now considered a full species.

Amphibians

BUFONIDAE (true toads)

Anaxyrus californicus

arroyo toad

2) Formerly Bufo californicus; Frost, Grant, Faivovich, Bain, Haas, Haddad, De Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green & Wheeler (2006. The Amphibian Tree of Life. Bulletin of the American Museum of Natural History 297: 1-370) placed this species in the genus Anaxyrus (Tschudi, 1845). The standard common name remains arroyo toad.

Anaxyrus canorus

Yosemite toad

1) Formerly Bufo canorus; Frost, Grant, Faivovich, Bain, Haas, Haddad, De Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green & Wheeler (2006. The Amphibian Tree of Life. Bulletin of the American Museum of Natural History 297: 1-370) placed this species in the genus Anaxyrus (Tschudi, 1845). The standard common name remains Yosemite toad.

Anaxyrus exsul

black toad

1) Formerly Bufo exsul; Frost, Grant, Faivovich, Bain, Haas, Haddad, De Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green & Wheeler (2006. The Amphibian Tree of Life. Bulletin of the American Museum of Natural History 297: 1-370) placed this species in the genus Anaxyrus (Tschudi, 1845). The standard common name remains black toad.

Incilius alvarius

Colorado River toad

1) Formerly Bufo alvarius. Between 2006 & 2008 the scientific name has been changed to Cranopsis alvaria, to Ollotis alvaria and now to Incilius alvarius.

RANIDAE

Lithobates pipiens

northern leopard frog

1) Formerly Rana pipiens; Frost, Grant, Faivovich, Bain, Haas, Haddad, De Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green & Wheeler (2006. The Amphibian Tree of Life. Bulletin of the American Museum of Natural History 297: 1-370) placed this species in the genus Lithobates (Fitzinger, 1843). The standard common name remains northern leopard frog.

Lithobates yavapaiensis

lowland (=Yavapai, San Sebastian & San Felipe) leopard frog

1) Formerly Rana yavapaiensis; Frost, Grant, Faivovich, Bain, Haas, Haddad, De Sá, Channing, Wilkinson, Donnellan, Raxworthy, Campbell, Blotto, Moler, Drewes, Nussbaum, Lynch, Green & Wheeler (2006. The Amphibian Tree of Life. Bulletin of the American Museum of Natural History 297: 1-370) placed this species in the genus Lithobates (Fitzinger, 1843). The standard common name remains lowland leopard frog.

Rana aurora aurora

northern red-legged frog

1) A recent mtDNA study consludes that Rana aurora aurora and Rana aurora draytonii should be recongnized as separate species with a narrow zone of overlap.

Rana draytonii

California red-legged frog

1) A recent mtDNA study concludes that Rana aurora aurora and Rana aurora draytonii should be recongnized as separate species with a narrow zone of overlap, and that the range of draytonii extends about 100 km further north in coastal California than previously thought.

Rana muscosa

Sierra Madre yellow-legged frog

1) Federal listing refers to populations in the San Gabriel, San Jacinto, & San Bernardino Mountains only.
2) Federal Candidate status refers to all populations that occur north of the Tehachapi Mountains in the Sierra Nevada.
3) Rana muscosa has been split into Rana sierrae, the Sierra Nevada yellow-legged frog, found in the northern and central Sierra Nevada and Rana muscosa, the Sierra Madre yellow-legged frog, found in the southern Sierra Nevada and southern California.

Rana sierrae

Sierra Nevada yellow-legged frog

1) Federal candidate status refers to all populations that occur north of the Tehachapi Mountains in the Sierra Nevada.
2) Formerly Rana muscosa. Rana muscosa has been split into Rana sierrae, the Sierra Nevada yellow-legged frog, found in the northern and central Sierra Nevada and Rana muscosa, the Sierra Madre yellow-legged frog, found in the southern Sierra Nevada and southern California.

Reptiles

HELODERMATIDAE (venomous lizards)

Heloderma suspectum cinctum

banded gila monster

1) The BLM "Sensitive Species" designation refers to the full species.

BOIDAE (boas)

Charina trivirgata

rosy boa

1) The Forest Service "Sensitive" designation refers only to the subspecies roseofusca.

Birds

PHASIANIDAE (grouse and ptarmigan)

Dendragapus fuliginosus howardi

Mount Pinos sooty grouse

1) Formerly merged with D. obscurus as blue grouse, but separated on the basis of genetic evidence and differences in voice, behavior, & plumage.
2) The American Bird Conservancy "WatchList of Birds of Conservation Concern" designation refers to the full species.

RALLIDAE (rails, coots, and gallinules)

Laterallus jamaicensis coturniculus

California black rail

1) The American Bird Conservancy "WatchList of Birds of Conservation Concern" designation refers to the full species.

Rallus longirostris levipes

light-footed clapper rail

1) The American Bird Conservancy "WatchList of Birds of Conservation Concern" designation refers to the full species.

Rallus longirostris obsoletus

California clapper rail

1) The American Bird Conservancy "WatchList of Birds of Conservation Concern" designation refers to the full species.

Rallus longirostris yumanensis

Yuma clapper rail

1) The American Bird Conservancy "WatchList of Birds of Conservation Concern" designation refers to the full species.

CHARADRIIDAE (plovers and relatives)

Charadrius alexandrinus nivosus

western snowy plover

1) Federal listing applies only to the Pacific coastal population
2) DFG "Species of Special Concern" designation refers to both the coastal & interior populations.

LARIDAE (gulls and terns)

Gelochelidon nilotica

gull-billed tern

1) Taxonomy recently changed from Sterna nilotica

Hydroprogne caspia

Caspian tern

1) Taxonomy recently changed from Sterna caspia

Sternula antillarum browni

California least tern

1) Taxonomy recently changed from Sterna antillarum browni.
2) The American Bird Conservancy "WatchList of Birds of Conservation Concern" designation refers to the full species.

Thalasseus elegans

elegant tern

1) Taxonomy recently changed from Sterna elegans

Birds

STRIGIDAE (owls)

Athene cunicularia

burrowing owl

1) Wintering observations with or without a burrow in San Francisco, Ventura, Sonoma, Marin, Napa & Santa Cruz Counties.

Strix occidentalis caurina

northern spotted owl

1) There are no northern spotted owl EOs in the CNDDB. All northern spotted owl location information is maintained in a separate data layer. This layer is packaged with the CNDDB layer in BIOS. All RareFind subscribers have access to this information through BIOS (http:BIOS.dfg.ca.gov)
2) The American Bird Conservancy "WatchList of Birds of Conservation Concern" designation refers to the full species.

Strix occidentalis occidentalis

California spotted owl

1) The American Bird Conservancy "WatchList of Birds of Conservation Concern" designation refers to the full species.

TYRANNIDAE (tyrant flycatchers)

Empidonax traillii

willow flycatcher

1) State listing of the full species includes all subspecies

Empidonax traillii brewsteri

little willow flycatcher

1) State listing of the full species includes all subspecies
2) The American Bird Conservancy "WatchList of Birds of Conservation Concern" designation refers to the full species.

Empidonax traillii extimus

southwestern willow flycatcher

1) State listing of the full species includes all subspecies
2) The American Bird Conservancy "WatchList of Birds of Conservation Concern" designation refers to the full species.

LANIIDAE (shrikes)

Lanius ludovicianus mearnsi

San Clemente loggerhead shrike

1) Subspecific identity of shrikes currently on San Clemente is uncertain. Mundy et al. (1997a, b) provided evidence L. l. mearnsi is genetically distinct from L. l. gambeli and L. l. anthonyi, whereas Patten and Campbell (2000) concluded, based on morphology, that the birds now on San Clemente are intergrades between L. l. mearnsi and L. l. anthonyi.

VIREONIDAE (vireos)

Vireo bellii arizonae

Arizona bell's vireo

1) The American Bird Conservancy "WatchList of Birds of Conservation Concern" designation refers to the full species.

Vireo bellii pusillus

least Bell's vireo

1) The American Bird Conservancy "WatchList of Birds of Conservation Concern" designation refers to the full species.

TROGLODYTIDAE (wrens)

Campylorhynchus brunneicapillus sandiegensis

coastal cactus wren

1) Nomenclature follows the draft DFG Bird Species of Special Concern report.

SYLVIIDAE (gnatcatchers)

Polioptila californica californica

coastal California gnatcatcher

1) AKA Alta California gnatcatcher
2) The American Bird Conservancy "WatchList of Birds of Conservation Concern" designation refers to the full species.

Birds

MIMIDAE (mockingbirds and thrashers)

Toxostoma lecontei

Le Conte's thrasher

1) The BLM "Sensitive Species" designation refers to the subspecies Toxostoma lecontei macmillanorum.
2) DFG "Species of Special Concern" designation refers only to the San Joaquin population, AKA T. l. macmillanorum.

PARULIDAE (wood-warblers)

Geothlypis trichas sinuosa

saltmarsh common yellowthroat

1) AKA San Francisco common yellowthroat

EMBERIZIDAE (sparrows, buntings, warblers, & relatives)

Amphispiza belli belli

Bell's sage sparrow

1) The American Bird Conservancy "WatchList of Birds of Conservation Concern" designation refers to the full species.

Amphispiza belli clementeae

San Clemente sage sparrow

1) Subspecific validity uncertain. Recognized by AOU (1957), but not by Patten and Unitt (2002).
2) The American Bird Conservancy "WatchList of Birds of Conservation Concern" designation refers to the full species.

Melospiza melodia graminea, sensu

Channel Island song sparrow

1) Subspecific validity is uncertain. This subspecies when referred to as Santa Barbara song sparrow is extinct. However, the subspecies was merged by Patten (2001) with the San Miguel (M. m. micronyx), and San Clemente (M. m. clementae) song sparrows as the Channel Island song sparrow with the subspecific name M. m. graminea.

Piranga flava

hepatic tanager

1) According to The A.O.U. Check-list of North American Birds, Seventh Edition, this species is probably misplaced in the current phylogenetic listing but for which data indicating proper placement are not yet available.

Piranga rubra

summer tanager

1) According to The A.O.U. Check-list of North American Birds, Seventh Edition, this species is probably misplaced in the current phylogenetic listing but for which data indicating proper placement are not yet available.

Mammals

PHYLLOSTOMIDAE (leaf-nosed bats)

Leptonycteris yerbabuenae

lesser long-nosed bat

1) Listed by the U.S. Fish & Wildlife Service as Leptonycteris curasoae yerbabuenae.

VESPERTILIONIDAE (evening bats)

Lasiurus blossevillii

western red bat

1) The DFG "Species of Special Concern" designation is based on the draft updated Mammalian Species of Special Concern report.

Lasiurus xanthinus

western yellow bat

1) The DFG "Species of Special Concern" designation is based on the draft updated Mammalian Species of Special Concern report.

HETEROMYIDAE (kangaroo rats, pockets mice, & kangaroo mice)

Chaetodipus fallax fallax

northwestern San Diego pocket mouse

1) The DFG "Species of Special Concern" desgination refers to the full species.

Chaetodipus fallax pallidus

pallid San Diego pocket mouse

1) The DFG "Species of Special Concern" designation refers to the full species.

Mammals

HETEROMYIDAE (kangaroo rats, pockets mice, & kangaroo mice)

Perognathus alticolus alticolus

white-eared pocket mouse

1) The DFG "Species of Special Concern" and the BLM "Sensitive Species" designations refer to the full species.
2) The IUCN "Endangered" designation is at the species level.

Perognathus alticolus inexpectatus

Tehachapi pocket mouse

1) The DFG "Species of Special Concern" designation refers to the full species.
2) The IUCN "Endangered" designation is at the species level.

MURIDAE (mice, rats, and voles)

Neotoma fuscipes riparia

riparian (=San Joaquin Valley) woodrat

1) This species is currently undergoing taxonomic revision

Reithrodontomys megalotis santacruzae

Santa Cruz harvest mouse

1) Synonomous with Reithrodontomys megalotus longicaudus, Santa Cruz Island Population.

CANIDAE (foxes, wolves, and coyotes)

Urocyon littoralis

island fox

1) State listing is at the full species level and includes all subspecies on all islands. Federal listing does not include San Nicolas & San Clemente island subspecies.

Urocyon littoralis catalinae

Santa Catalina Island fox

1) The IUCN "Critically Endangered" designation refers to the full species.

Urocyon littoralis clementae

San Clemente Island fox

1) The IUCN "Critically Endangered" designation refers to the full species.

Urocyon littoralis dickeyi

San Nicolas Island fox

1) The IUCN "Critically Endangered" designation refers to the full species.

Urocyon littoralis littoralis

San Miguel Island fox

1) The IUCN "Critically Endangered" designation refers to the full species.

Urocyon littoralis santacruzae

Santa Cruz Island fox

1) The IUCN "Critically Endangered" designation refers to the full species.

Urocyon littoralis santarosae

Santa Rosa Island fox

1) The IUCN "Critically Endanagered" designation refers to the full species.

MUSTELIDAE (weasels and relatives)

Enhydra lutris nereis

southern sea otter

1) The IUCN "Endangered" designation refers to the full species.

Martes pennanti (pacifica) DPS

Pacific fisher

1) The subspecies pacifica is no longer considered a valid subspecies. The Pacific fisher is now considered to be a distinct population segment (DPS).
2) Federal candidate status refers to the distinct population segment in Washington, Oregon & California.

Mammals

MUSTELIDAE (weasels and relatives)

Martes pennanti (pacifica) DPS

Pacific fisher

3) Candidate for state listing as an endangered or threatened species.

BOVIDAE (sheep and relatives)

Ovis canadensis nelsoni DPS

peninsular bighorn sheep

1) The subspecies O. c. cremnobates has been synonymized with O. c. nelsoni. Peninsular bighorn sheep are now considered to be a Distinct Population Segment (DPS).

Record	QUADNAME	ELMCODE	SCINAME
1	Oxnard	ABNNB03031	Charadrius alexandrinus nivosus
2	Oxnard	ABNNM08103	Sternula antillarum browni
3	Oxnard	ABNRB02022	Coccyzus americanus occidentalis
4	Oxnard	ABNSB10010	Athene cunicularia
5	Oxnard	ABPAU08010	Riparia riparia
6	Oxnard	ABPBW01114	Vireo bellii pusillus
7	Oxnard	ABPBX99015	Passerculus sandwichensis beldingi
8	Oxnard	AFCQN04010	Eucyclogobius newberryi
9	Oxnard	ARAAD02030	Actinemys marmorata
10	Oxnard	ARACC01012	Anniella pulchra pulchra
11	Oxnard	ARACF12100	Phrynosoma blainvillii
12	Oxnard	CTT52120CA	Southern Coastal Salt Marsh
13	Oxnard	CTT52410CA	Coastal and Valley Freshwater Marsh
14	Oxnard	CTT63300CA	Southern Riparian Scrub
15	Oxnard	IICOL02101	Cicindela hirticollis gravida
16	Oxnard	IICOL4A010	Coelus globosus
17	Oxnard	IILEPP2010	Danaus plexippus
18	Oxnard	PDAST5L0A1	Lasthenia glabrata ssp. coulteri
19	Oxnard	PDAST660D0	Malacothrix similis
20	Oxnard	PDFAB0F7B1	Astragalus pycnostachyus var. lanosissimus
21	Oxnard	PDSCR0J0C2	Cordylanthus maritimus ssp. maritimus

COMNAME	FEDSTATUS	CALSTATUS	DFGSTATUS	CNPSLIST
western snowy plover	Threatened	None	SSC	
California least tern	Endangered	Endangered	FP	
western yellow-billed cuckoo	Candidate	Endangered		
burrowing owl	None	None	SSC	
bank swallow	None	Threatened		
least Bell's vireo	Endangered	Endangered		
Belding's savannah sparrow	None	Endangered		
tidewater goby	Endangered	None	SSC	
western pond turtle	None	None	SSC	
silvery legless lizard	None	None	SSC	
coast horned lizard	None	None	SSC	
Southern Coastal Salt Marsh	None	None		
Coastal and Valley Freshwater Marsh	None	None		
Southern Riparian Scrub	None	None		
sandy beach tiger beetle	None	None		
globose dune beetle	None	None		
monarch butterfly	None	None		
Coulter's goldfields	None	None		1B.1
Mexican malacothrix	None	None		1A
Ventura Marsh milk-vetch	Endangered	Endangered		1B.1
salt marsh bird's-beak	Endangered	Endangered		1B.2