Volume 2 – Appendices

WESTON RANCH TOWNE CENTER PROJECT

Draft Environmental Impact Report
EIR No. 5-04
State Clearinghouse No. 2005012056

Prepared for:
City of Stockton
Community Development Department

December 2006

Volume 2 – Appendices

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City of Stockton
Community Development Department

December 2006

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Draft Environmental Impact Report

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Appendix A
Notice of Preparation

WESTON RANCH TOWNE CENTER PROJECT

Revised Notice of Preparation of the
Draft Environmental Impact Report and Initial Study
State Clearinghouse No. 2005012056
EIR No. 5-04

Prepared for:
City of Stockton
Community Development Department
Planning Division

November 2005

WESTON RANCH TOWNE CENTER PROJECT

Revised Notice of Preparation of the Draft Environmental Impact Report and Initial Study

State Clearinghouse No. 2005012056
EIR No. 5-04

Prepared for:
City of Stockton
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CITY OF STOCKTON
NOTICE OF PREPARATION

To: (See attached list)

From: Lead Agency
City of Stockton
c/o Community Development Dept.
Planning Division
345 North El Dorado Street
Stockton, CA 95202-1997

SUBJECT: **NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT PURSUANT TO PUB. RES. CODE SEC. 21080.4 AND CAL. CODE OF REGULATIONS TITLE 14, SEC 15082(a)**

The City of Stockton will be the Lead Agency and will prepare a Draft Environmental Impact Report (EIR) for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project.

The project description, location and the probable 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 receipt of this notice. We respectfully request that you return your comments to the above-noted Lead Agency address by Thursday, December 16, 2005. If no comments are received by the date indicated, it will be assumed that the document is acceptable.

If you have any questions regarding this matter, please contact Mark Martin at (209) 937-8569.

PROJECT TITLE: Weston Ranch Towne Center Project
EIR FILE #: 5-04_ DISCRETIONARY APPLICATION NO.(S): GPA 10-04, Z-13-04, DA 8-04, TM 44-04, UP 89-04
APPLICANT: Vestar Development Company
PROJECT DESCRIPTION/LOCATION: The EIR will address the potential environmental impacts related to the implementation of the proposed project. The project proposes a commercial development which would include up to 710,000 square feet of shopping center retail space including large retail stores, in-line shops, retail pad stores, restaurants, and fuel centers. Approximately 60 acres of the site will be developed under the first phase, an additional 6 acres is proposed to be developed at a later date and is subject to a general plan amendment and rezone only at this time. The project also proposes parking, landscaping, and utility relocation and upgrades. The proposed project will include a general plan amendment, a rezone of the site, tentative maps, development agreements and a use permit. The property is located at the southern boundary of the City of Stockton immediately north of French Camp Road, west of Manthey Road and Interstate 5, and east of McDougald Boulevard. The property is entirely with Stockton City limits.

James E. Glaser, DIRECTOR
COMMUNITY DEVELOPMENT DEPARTMENT

By _____ Date: November 15, 2005
Project Manager II Mark Martin

AFFIDAVIT OF MAILING AND POSTING

I declare that on _____, I deposited in the United States mail facilities in the City of Stockton, State of California, a true copy of the above Notice of Preparation (NOP) with any attachments, with the postage thereon prepaid, addressed to each public agency and other interested parties on the attached distribution list. A copy of the NOP has also been mailed or delivered to the San Joaquin County Clerk who is required to post said NOP for a period of 30 days in accordance with Public Resources Code Section 21092.3.

_____ _____
Signature Title

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ATTACHMENT 1

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REVISED
NOTICE OF PREPARATION OF AN
DRAFT ENVIRONMENTAL IMPACT REPORT
FOR THE WESTON RANCH TOWNE CENTER PROJECT

OVERVIEW OF PROJECT

Lead Agency

The City of Stockton is the lead agency for the preparation of an Environmental Impact Report (EIR) for the Weston Ranch Towne Center Project (Project), located within the City of Stockton, San Joaquin County, immediately north of French Camp Road and west of Interstate 5 (I-5) (Figure 1). The document is being prepared in compliance with the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.).

CEQA Section 15082 states that once a decision is made to prepare an EIR, the lead agency must prepare a Notice of Preparation (NOP) to inform all responsible and trustee agencies that an EIR will be prepared. The purpose of this NOP is to provide responsible and trustee agencies and interested persons with sufficient information describing the proposed project, and the potential environmental effects of the Project, to enable them to make a meaningful response to the lead agency concerning the scope and content of the information to be included in the EIR.

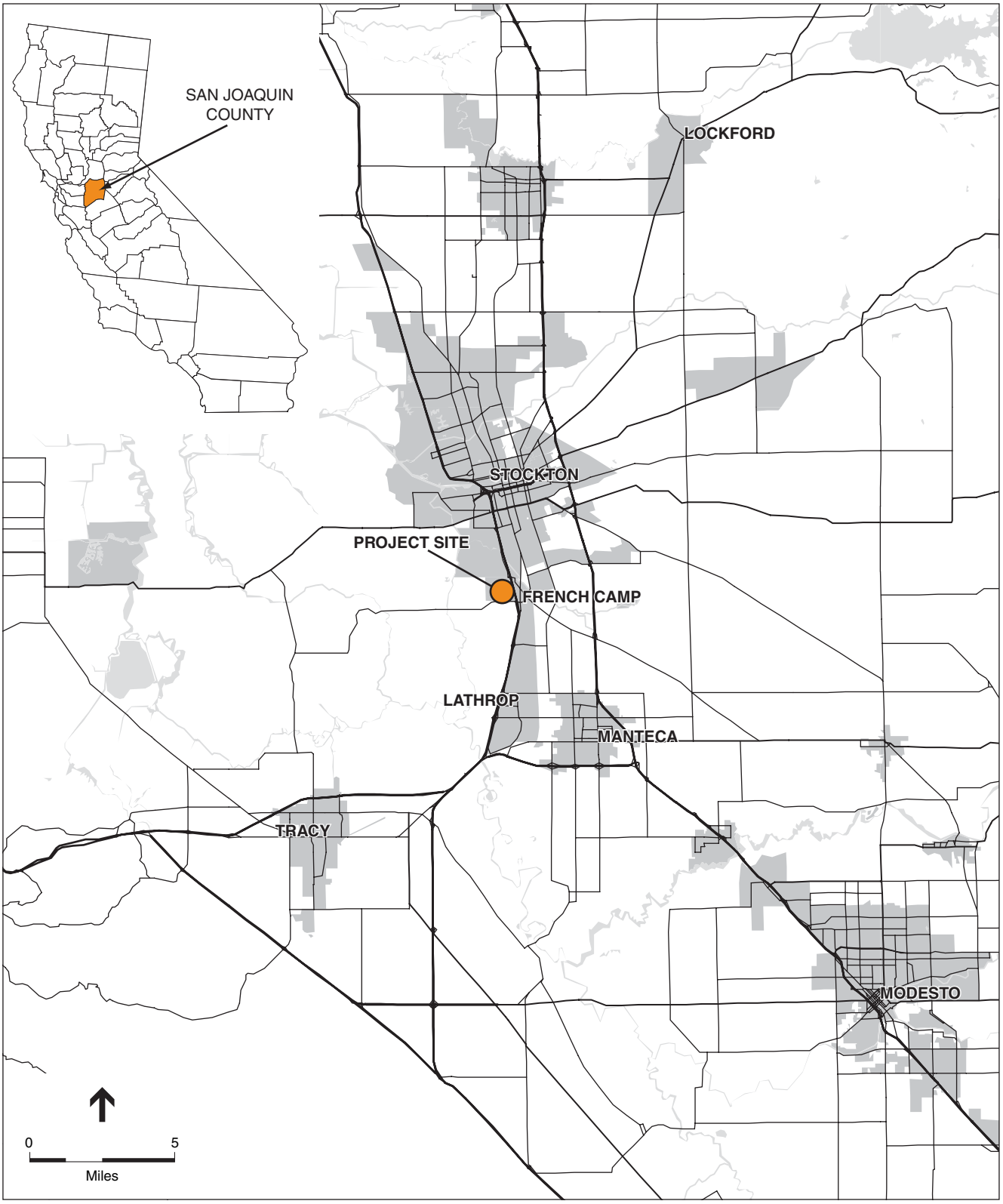
Project Title

Weston Ranch Towne Center

Introduction

A Notice of Preparation for the proposed project was circulated January 14, 2005 with a 30-day comment period through February 14, 2005. A revised Notice of Preparation is being circulated to reflect changes in the proposed project. The proposed project has been expanded to include two additional parcels, known as the Barkett Property. However, this additional property is only subject to general plan and rezone entitlements at this time. Unlike the rest of the project site, specific uses and plans will be determined in a later phase of development. The Initial Study and Notice of Preparation have been amended to reflect the potential for environmental impacts (particularly hazards) related to the future development of the additional parcels, which are currently used as an asbestos disposal site.

The proposed project includes an application to the City of Stockton to amend the General Plan designation and to rezone the project site. The current and proposed General Plan designation and zoning (including the Barkett Property) are summarized in Table 1, below:



SOURCE: DeLorme Street Atlas USA, 2000; and ESA, 2005

Weston Ranch Towne Center Revised NOP . 204152

Figure 1
Regional Location

TABLE 1

EXISTING AND PROPOSED LAND USE DESIGNATIONS

	Current	Proposed
General Plan designation	Low-Medium Density Residential; Commercial	Commercial
Zoning district	RL Residential, Low Density CG Commercial, General	CL (Commercial Large-Scale) District

The other entitlements requested by the applicant are Development Agreements, Tentative Maps covering the project site, and a Use Permit with a Project Plan. Because the approval of this project constitutes a discretionary action by the City of Stockton, it is subject to the requirements of CEQA. A previous EIR (1987) was prepared and circulated for the Weston Ranch Annexation which included pre-zoning, a General Plan amendment, annexation into the City of Stockton, and residential and commercial development. The proposed Weston Ranch Towne Center project site is entirely within the Weston Ranch Annexation EIR project site, but the parcels directly adjacent to French Camp Road (southern portion of the proposed project site) were not included in the development plan which was also analyzed in the previous EIR. Because the proposed project is substantially different from the project addressed by the 1987 Weston Ranch EIR and because further discretionary actions by the City of Stockton would be necessary, an EIR is considered to be the appropriate CEQA document to be prepared at this time.

The City of Stockton is San Joaquin County's largest metropolitan center and has the most extensive supply of urban land. Consequently, it is assumed under the County's General Plan that it will absorb the bulk of the County's growth through the year 2010 and that commercial activities and the need for commercial space will grow at a rate similar to population growth. Economic development efforts by the City of Stockton have helped to establish Stockton as a desirable place to live and work. Continuing regional growth, as well as the cost and availability of housing in other parts of the State are expected to promote continuation of strong housing demands in the Stockton area for the immediately foreseeable future. In light of these above-mentioned factors, the proposed project would provide needed commercial and retail space; augment the City's available commercial space for continuing growth demands; provide job opportunities for members of Stockton's work force; help increase the proportion of local income invested and spent locally; provide retail and commercial services at a location that is convenient and where economic viability can be sustained; and provide a recognizable "gateway" at a major entrance into the City.

Project Background

In 1987, the City of Stockton prepared and circulated for public comment a Draft EIR addressing the proposed annexation of 1,623 acres known as the Weston Ranch Development. The proposed annexation area included the entire Weston Ranch Towne Center project site. The Weston Ranch

Annexation also involved a General Plan amendment and pre-zoning of the proposed project site, including the area encompassing the Weston Ranch Towne Center Project Site, and development of 1,454 acres, including portions of the Weston Ranch Towne Center Project Site. Proposed pre-zoning in the areas encompassing the Weston Ranch Towne Center project site included both residential and commercial designations. The Weston Ranch Annexation, pre-zoning, and development project was approved by the City of Stockton in 1988, concurrent with a General Plan amendment. The Weston Ranch area was annexed into the City of Stockton in July 1988.

A Tentative Subdivision Map (Weston Ranch Phase 3 and portions of Phase 5, 6, 7, and 12) with planned residential development in areas comprising portions of the proposed Weston Ranch Towne Center project site was filed in 1989 and approved in 1990, although no subsequent development occurred in the area comprising the Weston Ranch Towne Center project site.

In 1998, the City of Stockton circulated a Supplemental EIR addressing a proposed General Plan amendment and rezoning of 85.6 acres within the Weston Ranch Annexation area. Portions of the proposed rezoned parcels include land within the Proposed Weston Ranch Towne Center project site. Proposed rezoning within the Weston Ranch Towne Center project site included low-medium density residential to commercial (R-1 to C-2); and high density residential to commercial (R-3 to C-2) in Parcels E, and F respectively.

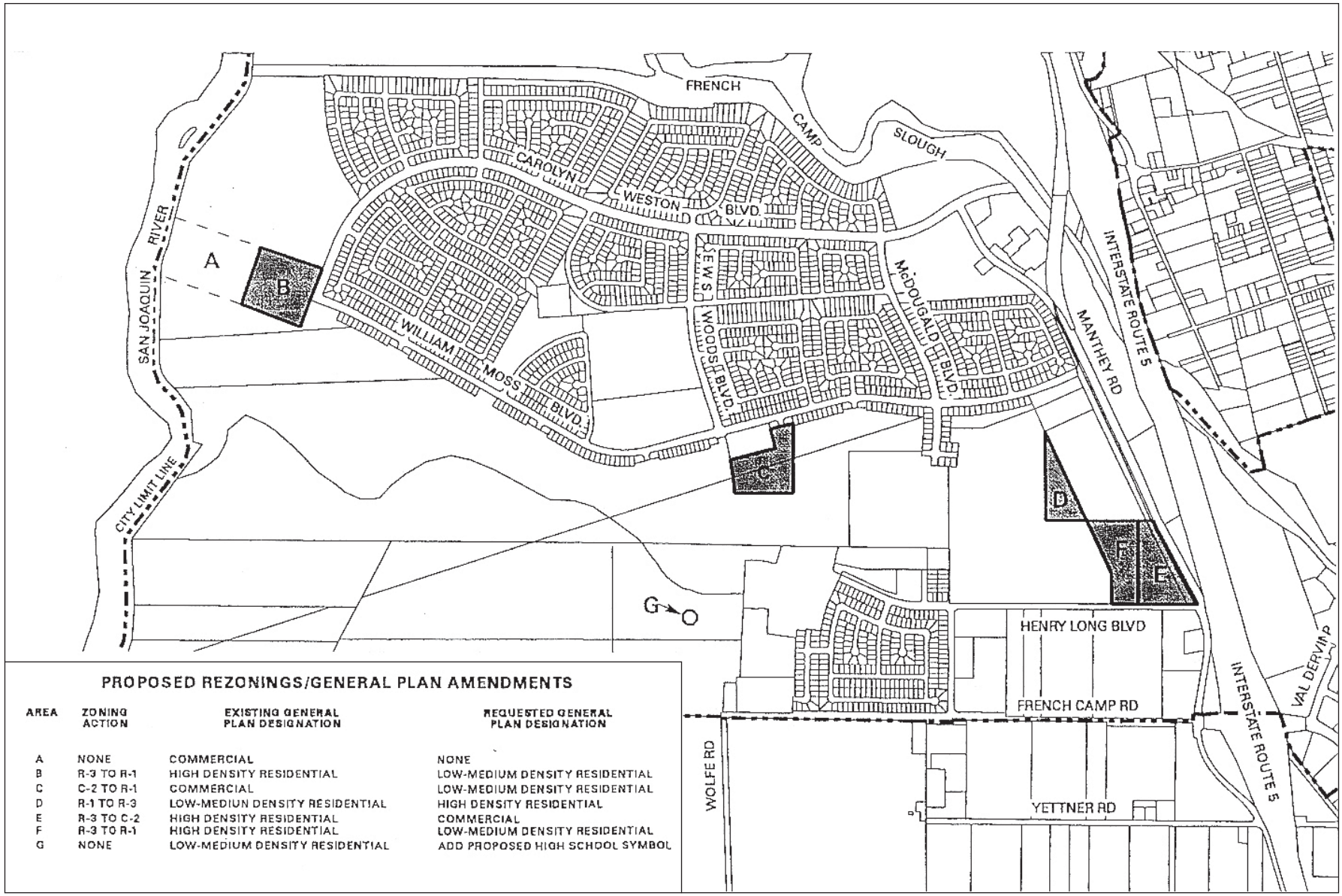
The Final Supplemental EIR (September 1998) reflected a change in the proposed rezoning and General Plan amendment, reducing the size of the areas proposed to be rezoned (Parcels D and E) and changing the proposed high density residential to commercial (R-3 to C-2) in Parcel F to a slightly larger area with a zoning of low-medium density residential (R-1) (Figure 2).

Project Location

The proposed project is located in Stockton, north of French Camp Road, west of I-5 at the northwest quadrant of the I-5/French Camp Road interchange, and east of McDougald Boulevard and the existing Weston Ranch residential subdivision (Figure 3). The proposed project is located within the City of Stockton and is bounded on the south by the Stockton City limit. The project site consists of six parcels (Assessor's Parcels Numbers 16819010, 16819009, 16819008, 16819007, 16819006, and a portion of 16817007) of land totaling approximately 65.8 acres. The proposed project site is located in portions of Sections 12 and D, Township 1N, Range 6E, Mount Diablo Baseline and Principle Meridian, which is within the C. M. Weber Land Grant boundaries.

The existing Weston Ranch residential subdivision is located north of the proposed project site (north of William Moss Boulevard) and also bounds a portion of the west side of the project site. Agricultural land is located adjacent to the southwest and southern portions of the project site.

Regional access to the project site is provided by I-5 (French Camp Road and Downing Avenue off-ramps). Local project access is provided by French Camp Road on the south and Manthey Road via Downing Avenue and William Moss Boulevard on the north.



PROPOSED REZONINGS/GENERAL PLAN AMENDMENTS

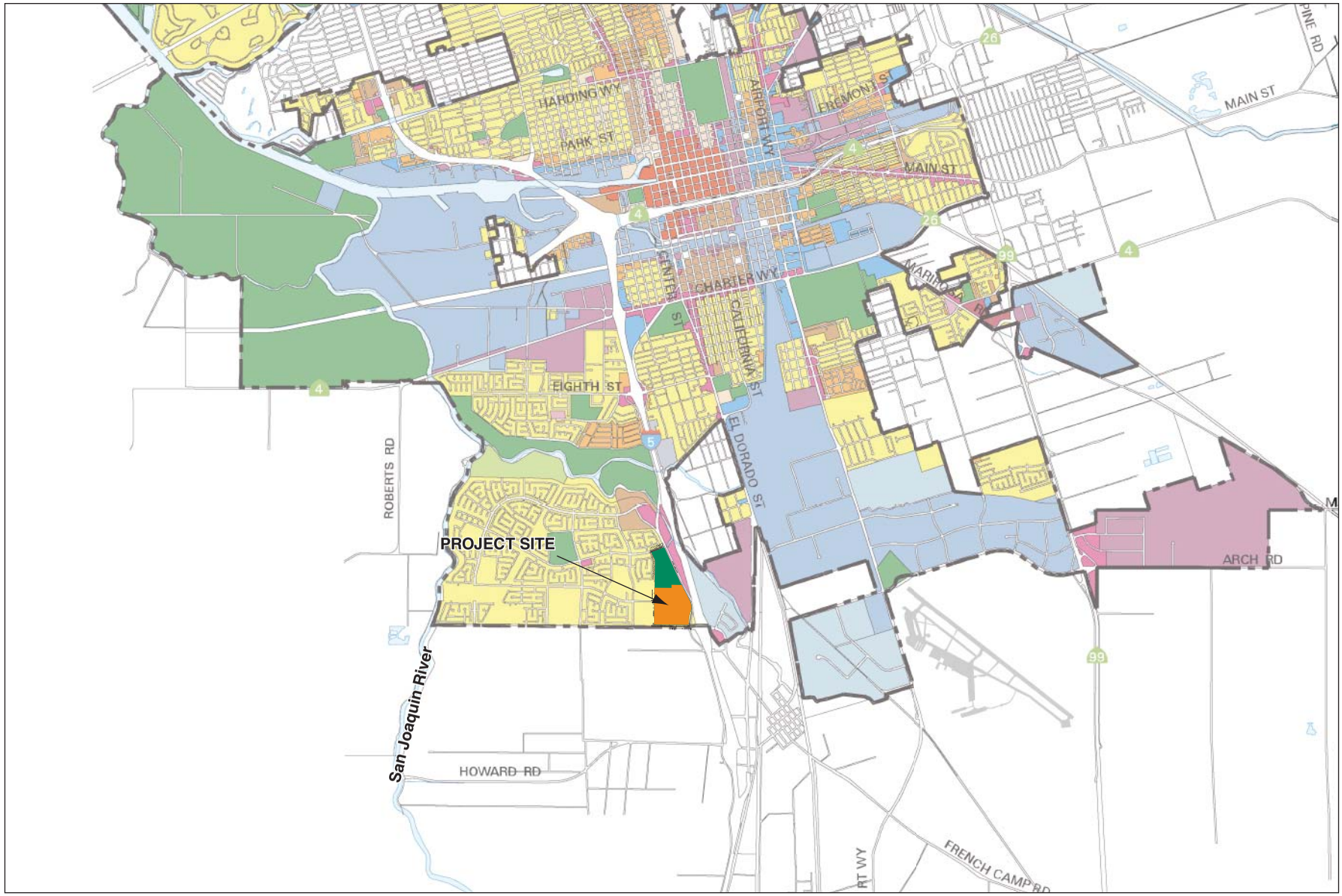
AREA	ZONING ACTION	EXISTING GENERAL PLAN DESIGNATION	REQUESTED GENERAL PLAN DESIGNATION
A	NONE	COMMERCIAL	NONE
B	R-3 TO R-1	HIGH DENSITY RESIDENTIAL	LOW-MEDIUM DENSITY RESIDENTIAL
C	C-2 TO R-1	COMMERCIAL	LOW-MEDIUM DENSITY RESIDENTIAL
D	R-1 TO R-3	LOW-MEDIUN DENSITY RESIDENTIAL	HIGH DENSITY RESIDENTIAL
E	R-3 TO C-2	HIGH DENSITY RESIDENTIAL	COMMERCIAL
F	R-3 TO R-1	HIGH DENSITY RESIDENTIAL	LOW-MEDIUM DENSITY RESIDENTIAL
G	NONE	LOW-MEDIUM DENSITY RESIDENTIAL	ADD PROPOSED HIGH SCHOOL SYMBOL

SOURCE: City of Stockton, 1998; and ESA, 2005

Westin Ranch Towne Center Revised NOP . 204152

Figure 2

1998 Final Supplemental EIR Zoning Changes



SOURCE: City of Stockton Community Development Department Planning Division, 2002; and ESA, 2005

Westin Ranch Towne Center Revised NOP . 204152

Figure 3
Project Site

General Project Description

The EIR will provide a detailed assessment of environmental impacts related to the implementation of the project, which proposes development of the project site (Table 2) with large retail stores; in-line shops (located contiguously between large retail stores) retail pad stores; restaurants; fuel centers; and parking. A maximum of 710,000 square feet of retail uses is proposed for the overall site (including a potential 80,000 square feet of future uses for the Barkett Property). The preliminary site plan is provided in Figure 4. Approximate building pads are shown for the first phase of development only.

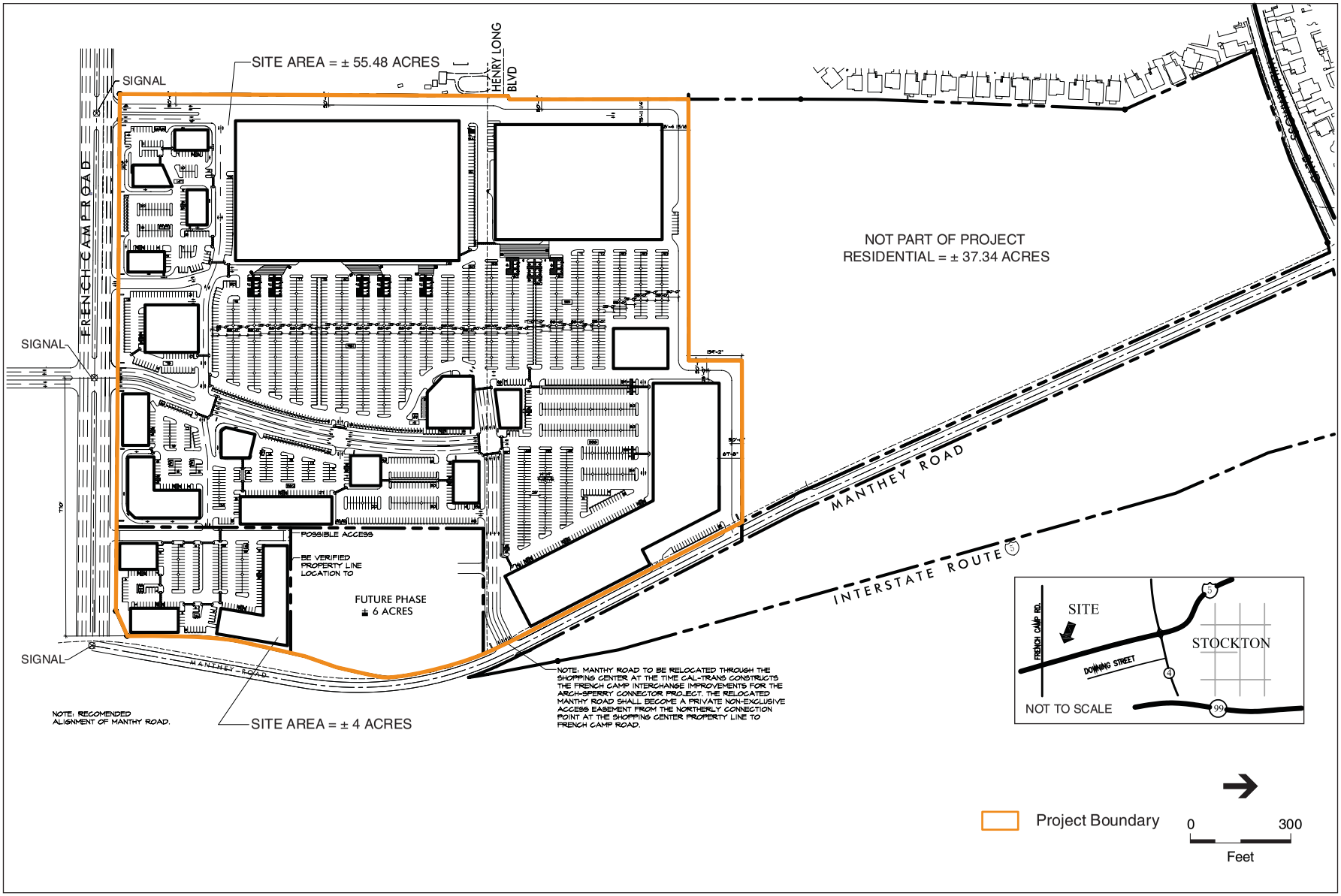
TABLE 2

PROPOSED LAND USES

Proposed Land Use	Proposed Maximum Space Use
Large Retail	500,000 square feet
In-line Shops	100,000 square feet
Retail Pads, including 2 fuel stations	60,000 square feet
Restaurants	50,000 square feet

The proposed project also includes the installation of all necessary infrastructure to serve the development. It is anticipated that new (proposed) adjoining streets, existing streets within the project site, realigned streets, and utilities will be improved in conjunction with development of the project site, as required by adopted mitigation measures and/or conditions of approval by the City Department of Public Works, and in accordance with the Development Agreement. The site plan and circulation plan (Figure 4) is preliminary and subject to revision/modification as part of the Use Permit and design review process. Relevant improvements expected to be completed prior to or in conjunction with development of the proposed project include:

- Lighting for streets, parking, and other outdoor areas.
- Landscaping of the project site and street frontages.
- A sign program.
- Design of appropriate noise barriers adjacent to residences.
- Improvements to circulation and access to the site (see further discussion, below).
- Installation of off-street bikeways, curbs, gutters, and sidewalks in appropriate areas.
- Extension of sewer, water, and storm drain lines as required and in accordance with the Use Permit and Project Plan and Development Agreements for the Proposed Project, and



SOURCE: Nadel Architects, Inc., 2005 ; and ESA, 2005

Westin Ranch Towne Center Revised NOP . 204152

Figure 4
Site Plan

- installation/relocation of electrical, telephone, natural gas, and other utilities in the project site.

Proposed Access and Circulation

Two street intersections would be located along the periphery of the proposed project site. These are the intersections of French Camp Road and Manthey Road and French Camp Road and a new road (proposed) to be located along the west edge of the property. The intersection of William Moss Boulevard and Manthey Road is located approximately 1,700 feet north of the project site. Additional driveways will provide ingress/egress to the project site. The proposed road along the west edge of the project site will be designated as a private internal service road. Henry Long Boulevard will extend west from Manthey Road into the project site as a private road, and will terminate within the project site. The proposed traffic circulation system and intersection and traffic control improvements will be in conformance with the City of Stockton General Plan, as amended, the Use Permit and Project Plan, and the Tentative Maps. Project access located nearest to I-5 including three signalized intersections and a non-signalized access driveway along French Camp Road may also be subject to Caltrans approval and will be designed and located in coordination with the new interchange at French Camp Road and I-5 which is planned by Caltrans. Descriptions of the major roadways are as follows:

- **French Camp Road.** This existing road is located along the south edge of the project site and intersects with I-5 off-ramps, and Manthey Road. The proposed road, located along the southwest edge of the project site would also intersect French Camp Road. French Camp Road would be widened and other improvements would be made in accordance with the City of Stockton General Plan, as amended, the Use Permit and Project Plan, the Tentative Maps, and in coordination with the French Camp Road and I-5 Interchange improvements planned by Caltrans.
- **Manthey Road/Frontage Road.** Manthey Road/Frontage Road located along the east edge of the project site is to be realigned following completion of traffic studies.
- **Manthey Road.** This existing north-south road is located along the east edge of the project site and connects French Camp Road on the south with William Moss Boulevard to the north and also with Downing Avenue further to the north. Manthey Road also intersects with Henry Long Boulevard. Manthey Road is to be relocated through the project site. The relocated Manthey Road/Frontage Road will become a private, non-exclusive access easement from the northern edge of the project site to French Camp Road and the southern leg of the frontage road shall be realigned to meet the access easement (Figure 4).
- **Henry Long Boulevard.** This existing road bisects the project site in an east-west direction, and connects Manthey Road with McDougald Boulevard. Henry Long Boulevard is proposed to be abandoned on the west side of the project area in correlation with adjacent development occurring to the west of the project site. Henry Long Boulevard will extend west from Manthey Road into the project site as a private road, and will terminate within the project site.
- **Proposed Road along the west edge of the project site.** This proposed road would extend north from French Camp Road along a portion of the west edge of the project site,

providing access points to the west side of the project site. The proposed road would be designated as an internal service and access road.

- **William Moss Boulevard.** This existing road is located approximately 1,700 feet north of the project site and intersects with Manthey Road, providing north access to the project site, including access from Downing Avenue/I-5 interchange to the north.
- Regional site access is provided by I-5 at the French Camp Road interchange and the Downing Avenue interchange. Caltrans plans to reconfigure the existing off-ramps at French Camp Road. The Caltrans project is not a part of the Proposed Project, but when completed, will provide improved access to the Proposed Project site.
- Besides the roads providing access to the project site (French Camp Road, the proposed road along the west edge of the project site, and William Moss Boulevard) circulation throughout the project site would be facilitated by Manthey Road.

Project Site Boundaries

The boundaries of the project site are shown in Figure 4. The project site includes approximately 65.8 acres bounded by Manthey Road on the east, vacant land zoned for residential uses on the north, French Camp Road on the south, and existing and planned residential development on the west.

Existing Conditions

The proposed project site consists of nearly flat agricultural land which is currently fallow. The site has an elevation of between 10 and 15 feet above mean sea level (msl) that slopes gently toward the west/northwest. The site contains two inhabited residences and two dilapidated and abandoned residences. Several utility structures are located in the southern portion of the project site and along Manthey Road. These include a storage tank, pump, pump shed, and several sets of low-voltage electrical distribution lines. Numerous large valley oak, including heritage oaks, cottonwood, and walnut trees are also located within the project site. An asbestos disposal site is located along the eastern boundary of the project site. A drainage ditch, which flows north toward French Camp Slough, extends along the east edge of Manthey Road, outside the proposed project site.

Existing conditions on land surrounding the site are as follows:

- Land to the west of the project site consists of an existing residential subdivision and fallow agricultural land where additional residential construction is planned.
- Land to the south of the project site consists of agricultural land located on the far side of French Camp Road.
- Land to the east of the site, between Manthey Road and the I-5 corridor, consists of vacant parcels zoned General Business and Single Family Residential. On the opposite side of the I-5 corridor, the land consists of existing warehouses and light industrial uses.
- Land to the north consists of an approximately 35 acre parcel of vacant land zoned for residential uses. Further north is an existing residential neighborhood.

General Statement Of Land Uses Proposed For The Project

The City of Stockton General Plan map currently shows land use designations of low density residential and commercial for the project site (Figure 5). As part of the proposed project, the applicant is requesting a General Plan amendment. The applicant proposes to designate the site Commercial.

The applicant also proposes to rezone the site. The site is currently zoned RL residential, low density and CG Commercial, General (Figure 6). The applicant proposes to rezone the site CL Commercial Large-Scale District.

In re-zoning the project site to CL for the development of a commercial center, the applicant would adopt as its basic land use designations and standards those designations and standards set forth in the City's General Plan, as amended, the City Zoning Ordinance, and other city land use ordinances and regulations, as such documents may be amended. The General Plan, as amended, the Zoning Ordinance, the Use Permit with a Project Plan, the Tentative Maps, and other city land use ordinances and regulations would be utilized to establish the layout of the proposed streets and the layout of required infrastructure, design elements, operation restrictions, and project phasing to be incorporated into the proposed project. Building standards will be in conformance with city land use and building ordinances and regulations. It should be noted that the entitlements requested for the Barkett Property are limited to a General Plan Amendment and rezone at this time. Specific uses and/or development plans have not been proposed for this property at this time.

Conformity To The City Of Stockton General Plan

The EIR will analyze the proposed project for consistency with the following pertinent Stockton General Plan goals and policies:

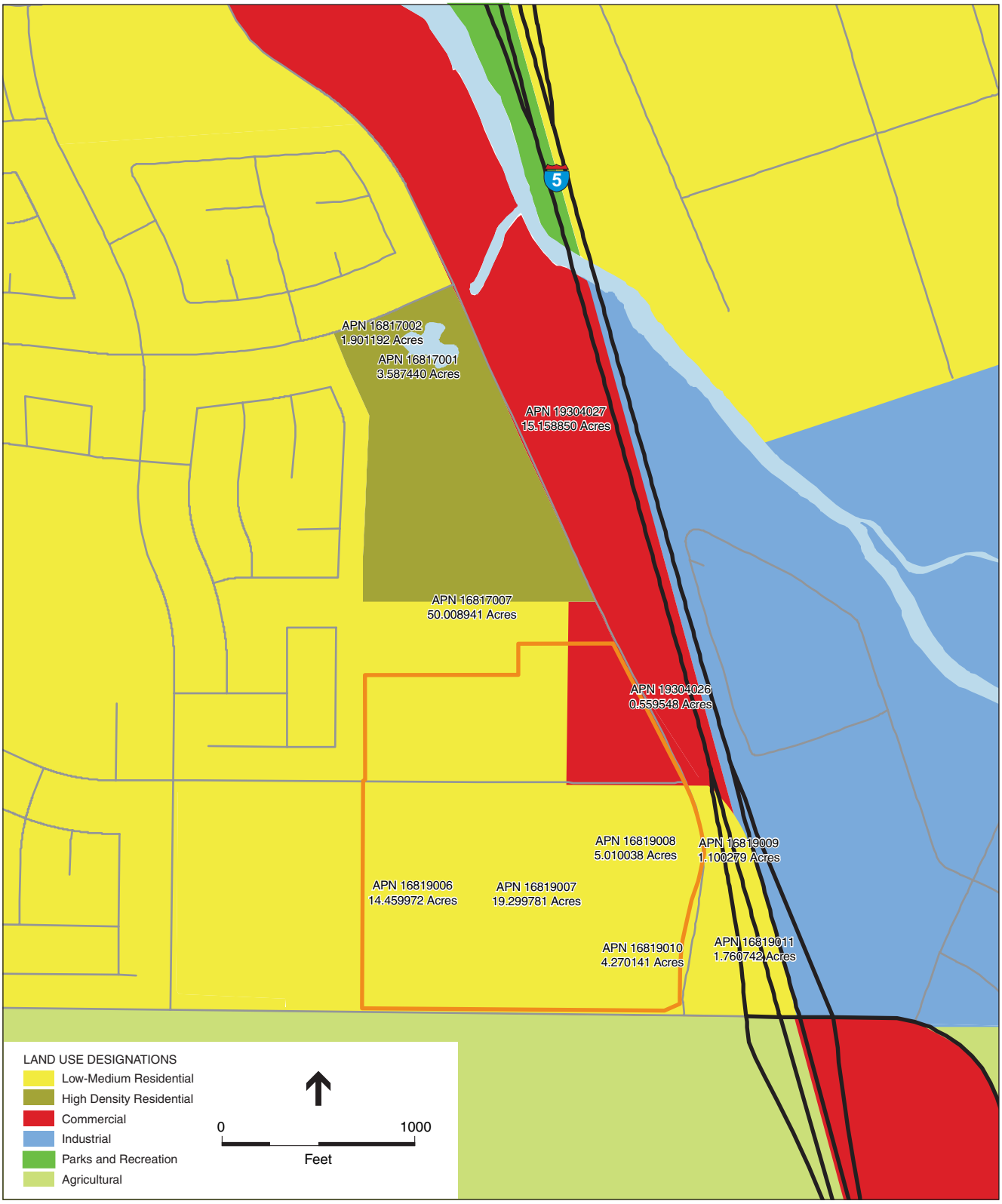
Land Use Element

Goal 1

Insure that Stockton's future growth will proceed in an orderly planned manner, thereby preventing urban sprawl and the wasteful use of land and promoting the efficient and equitable provision of public services.

Related Policies:

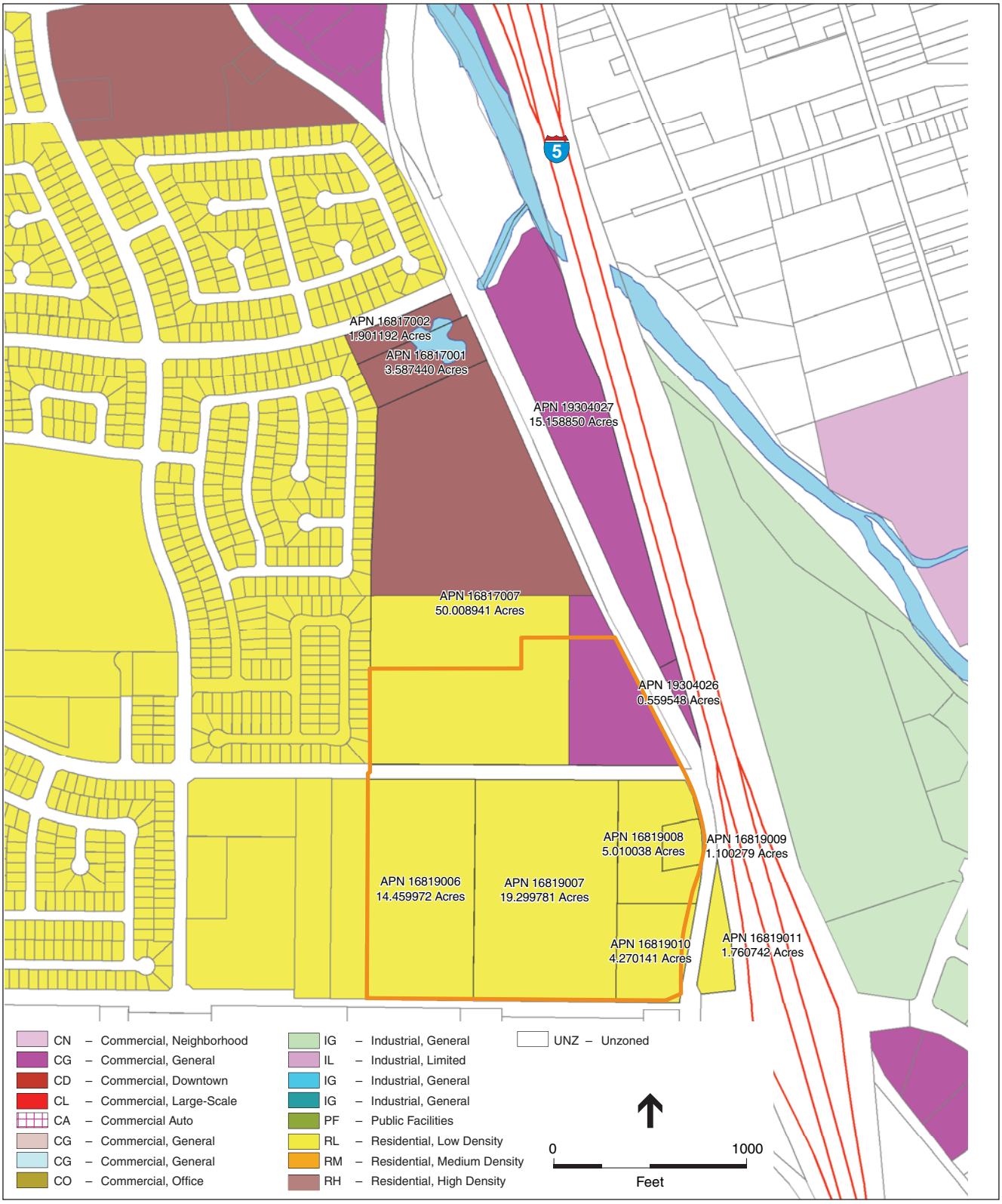
1. The General Plan shall designate an Urban Service Area at or beyond the existing City limits where City services and facilities will be available for extension upon annexation and where future urban development shall be in conformance with City Council adopted master utility and circulation plans.



SOURCE: City of Stockton, 2003; and ESA, 2005

Weston Ranch Towne Center Revised NOP . 204152

Figure 5
City of Stockton General Plan
Land Use Designation Map



SOURCE: City of Stockton, 2003; and ESA, 2005

Weston Ranch Towne Center Revised NOP . 204152

Figure 6
Project Area Zoning and
Assessor Parcel Numbers

3. Future urban development adjacent to the City should occur within the City. This requires that vacant unincorporated properties shall annex to the city prior to the provision of any City services.

6. The city shall regulate the levels of building intensity and population density according to the standards and General Plan Diagram Designation stated in Section II (pages II-2 through II-5 of the General Plan).

7. The City will continue to apply the regulations and procedures of the zoning ordinance and will continue to utilize the environmental assessment and environmental impact review processes as methods to prevent and mitigate land use conflicts in the development review process.

Goal 2

Promote development and redevelopment within the City of those areas already served, or which may be readily served, by City services and facilities in order to maintain and revitalize the existing urban area.

Related Policy:

2. Vacant land already served by City services should receive development priority over vacant, unserved land.

Goal 4

Promote and maintain environmental quality and the preservation of agricultural land while promoting logical and efficient urban growth.

Related Policies:

1. The wasteful and inefficient sprawl of urban uses into agricultural lands surrounding the urban area should be avoided by regulating the location of urban uses through the Urban Growth and Overall Development policies to minimize the consumption of agricultural land and other open areas containing valuable natural resources or scenic beauty.

2. Urban growth shall be geographically limited by such environmental hazards as flood vulnerability and unstable soil characteristics.

3. Urban growth, particularly sensitive developments (i.e., homes, schools, hospitals) should avoid locating in areas which are subject to adverse environmental or noise impacts.

4. Environmentally sensitive areas, such as the Delta, Oak Groves and areas of archaeological/historic value, should be preserved for the benefit of present and future generations.

5. Storm water quality measures shall be undertaken to enhance to the maximum extent practicable the quality of the water in the sloughs, creeks and rivers in this area.

Goal 5

Promote the balanced growth and development of all geographic areas of Stockton.

Relevant Policy:

1. Seek the revitalization of south/central Stockton including increased employment opportunities, expanded private investment, construction of new housing and the provision of various services to address existing social problems.

City Concept and Design

Goal 1

Enhance the sense of community identity in Stockton.

Related Policy:

1. Encourage the development of identifiable boundaries for the City to maintain a sense of community identity. The City should also consider the development of some type of "gateway" treatment at major entrances into the City.

Goal 2

Develop a balanced and complete community in terms of land use distribution and densities, housing types and styles, job opportunities and opportunities for social and cultural expression.

Related Policy:

2. Business and industry should be encouraged to provide job opportunities for members of Stockton's work force.

Commercial Land Use

Goal 1

Direct commercial development to areas where it is complementary to and compatible with surrounding land uses and will visually enhance the environment.

Related Policies:

1. Support the City's growth in business and financial services while also reasserting Stockton's historic role as a major retail center (this will help increase the proportion of local income invested and spent locally).

3. The compatible integration of commercial and new residential uses shall be encouraged. Existing residential areas shall be buffered from new commercial uses through the provisions of the zoning code.

4. Commercial areas shall be provided with frontage roads and/or access controls to reduce traffic congestion. Landscaping and design controls should be utilized to create an aesthetically pleasing environment.

8. Signing in commercial development shall be planned to complement rather than detract from its overall design or the design of its surrounding environment.

10. The integration of new residential uses in commercial areas (existing or new) shall be subject to Use Permit review to insure compatibility.

Goal 2

Encourage commercial facilities at locations that provide convenient service where their economic viability can be sustained.

Related Policy:

2. Clustering of commercial uses shall be encouraged and the splitting of commercial clusters or centers by roadways shall be discouraged.

Streets and Highways

Goal 1

Develop a street and highway system which promotes the safe, efficient and reliable movement of people and goods.

Related Policies:

2. The street system shall provide at least two (2) independent access routes for all major developed areas.

3. Significant trip generating land uses should be served by roadways adequate to provide vehicular access with a minimum of delay.

4. The construction of new road systems or the expansion of existing streets shall consider the potential impacts on air quality, noise, and sensitive biological areas.

Public Facilities

Goal 1

Provide public facilities and City services throughout the urbanized area.

Related Policies:

2. Capital improvements and facility needs generated by new development shall be financed by new development. The existing community should not be burdened by increased taxes and fees or by lowered service levels to accommodate the needs created by new development. Exceptions to this policy may be considered in an effort to encourage affordable housing.

5. Development proposals shall be reviewed for their impacts on various infrastructure components (i.e., sewer, water, fire stations, libraries, streets) and should be required to provide appropriate mitigation measures if development reduces service levels.

Water Facilities

Goal 1

Conserve groundwater and surface water resources in order to ensure sufficient supplies of good quality water.

Related Policies:

3. All urban development shall be served by a sanitary sewage system to avoid possible contamination of groundwater from septic systems.

4. The use of Best Management Practices for the reduction of pollutant in urban runoff shall be encouraged within the storm drainage system in order to reduce the amount of pollutants entering surface water resources.

7. Encourage and support water conservation measures by all City water users.

10. The City shall require preparation of detailed watershed drainage plans for those areas identified in the City of Stockton Drainage Infrastructure Plan. These plans should be completed before development occurs in the areas and shall identify required drainage improvements and costs. The watershed drainage plans shall include Best Management Practices which will reduce pollutants in urban runoff to the maximum extent practicable.

12. The City will comply with the requirements of the Clean Water Act with the intent of minimizing the discharge of pollutants into surface waters.

Fire Safety

Goal 1

Incorporate fire safety precautions in existing urbanized areas and in planning for new development.

Related Policies:

1. Protection from fire hazards shall be a consideration in all planning, regulatory and capital improvement programs.

3. Locate and maintain fire stations according to fire service area standards and maintain the water supply system necessary to provide the required water flow for fire fighting purposes.

4. New development shall provide adequate access for emergency vehicles, particularly firefighting equipment, as well as provide evacuation routes.

Natural and Cultural Resources Element

Goal 1

Guide urban development toward vacant or under-used land within the urbanized area and direct new growth toward contiguous lands to protect agricultural lands and other open spaces used for the managed production of resources from premature urban development.

Related Policies:

1. Existing agricultural soils capable of producing a wide variety of valuable crops shall be retained in agricultural use until the time that such soils are needed for logical urban expansion.

2. Land use decisions shall consider the proximity of industrial and commercial uses to major residential areas in order to reduce commuting.

Goal 5

Actively contribute to the solution of local and regional air quality problems.

Related Policies:

2. Review proposed development for both local and regional air quality impacts.

3. Assist project applicants in understanding and meeting the air quality mitigation requirements established by the San Joaquin Valley Air Pollution Control District.

Open Space

Goal 1

Preserve and enhance open space areas for the preservation of natural resources including plant life, habitat for fish and wildlife species, ecologically sensitive areas, and historic and cultural resources.

Related Policies:

4. Significant wildlife and natural vegetation areas shall be protected and preserved for environmental, educational and research purposes.

5. Seek to preserve existing Valley Oak trees which are healthy.

6. Continue to recognize and preserve Stockton's historical and cultural resources.

Goal 3

Retain in open space use any lands too hazardous for development to promote public health and safety.

Related Policy:

1. Areas not protected from 100-year floods shall not be urbanized due to public safety concerns.

Seismic and Other Geologic Hazards

Goal 1

Protect the community from the hazards of expansive soils, seismic dangers and other geologic activity.

Related Policy:

2. Structures utilized by large numbers of people (i.e., schools, hospitals, theaters, larger office buildings, hotels, large apartment complexes) shall be designed to minimize the damage caused by the most severe probable earthquake.

3. Major public facilities (i.e., treatment plants and pumping stations, major communication lines and terminals, evacuation routes) and emergency/disaster facilities (i.e., police and fire stations, ambulance services) shall be designed to withstand the most severe probable earthquake and remain operational.

Flood Hazards

Goal 1

Protect the community from the risk of flood damage.

Related Policy:

1. New urban development shall be approved only when the developer shows it to be protected from “100-year” floods.

Noise Goals and Policies

Goal 1

Protect the Citizens of the Stockton Planning Area from the harmful and annoying effects of exposure to excessive noise.

Goal 2

Protect the economic base of the Stockton Planning Area by preventing incompatible land uses from encroaching upon areas with existing noise-producing uses.

Related Policies:

2. The compatibility of proposed projects with existing and future noise levels due to traffic on public roadways, railroad line operations and aircraft in flight shall be evaluated.

6. Noise produced by commercial uses shall not exceed 75 A-weighted decibel (dBA) day-night average sound level (Ldn) or Community Noise Equivalent Level (CNEL) at the nearest property line.

8. Exceptions to the noise standards for commercial and industrial uses may be granted only if a recorded noise easement is conveyed by the affected property owners.

9. Enforce the State Noise Insulation Standards (California Administrative Code, Title 24) and Chapter 35 of the Uniform Building Code.

Environmental Impacts to be Analyzed in the EIR

The City of Stockton has reviewed the Initial Study prepared for the Proposed Weston Ranch Towne Center Project and has determined that the following resource areas shall be addressed in the EIR:

Aesthetics

The EIR will analyze proposed project impacts on adjacent residential areas from introduction of additional light sources and changes in the existing visual character of the area. The EIR will address whether the project will have a substantial adverse effect on scenic resources.

Air Quality

The EIR will analyze short term impacts on air quality associated with grading and construction. The EIR will analyze long term impacts associated with project operation and vehicle emissions from proposed land use and circulation changes. The analysis will address the extent to which the project will conflict with or obstruct the implementation of the applicable air quality attainment plan. The analysis will address the extent to which project-related emissions will violate any air quality standard, or contribute to an existing or projected air quality violation. The EIR will analyze whether the project will contribute to an exposure of sensitive receptors to substantial pollutant concentrations (e.g., high concentrations of carbon monoxide due to traffic congestion). The EIR will address the extent to which the project will contribute to cumulatively significant air quality emissions. Emissions from stationary sources are expected to be negligible because the uses proposed for the site do not generate such emissions. The uses at the site are not anticipated to create objectionable odors affecting a substantial number of people.

Biological Resources

The EIR will describe on-site biological resources. Potential impacts on resources such as rare, threatened, or endangered species and species habitat, including wetlands or other sensitive natural community, will be discussed in the EIR. The EIR will analyze impacts from direct disturbance and destruction of habitat associated with construction, from hydrological changes, and from long-term project operation. The EIR will analyze the extent to which the project is

consistent with policies or ordinances addressing biological resources including the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan. The EIR will analyze whether the project will interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established wildlife corridors, or impede the use of native wildlife nursery sites.

Cultural Resources

The EIR will analyze potential impacts on historical and archaeological resources, paleontological resources, and human remains. Impacts associated with grading, construction, and accidental discovery of buried resources will be identified.

Geology and Soils

The EIR will analyze whether the project will result in significant impacts with respect to geology and soils (e.g., erosion, seismicity).

Hazards and Hazardous Materials

The EIR will analyze potential project impacts on the public and the environment from hazardous materials, hazardous emissions, and safety hazards that currently exist and/or may exist as a result of project implementation.

Hydrology and Water Quality

The EIR will analyze potential project impacts from changes in existing drainage patterns, impacts on stormwater drainage systems from changes in runoff, and potential impacts on water quality. The EIR will address potential impacts associated with flooding.

Land Use and Planning

The EIR will analyze the Proposed Project's impact on and compatibility with any applicable land use plans, policies, and zoning, and any conflicts with a habitat conservation plan or natural community conservation plan. The project will not physically divide an established community because it is located adjacent to an existing highway (I-5), and is not located between two established communities.

The EIR will also analyze the Proposed Project's social and economic impacts to the City, and will consider both short term construction-related changes and long term changes in retail spending. The impact analysis will analyze impacts on existing businesses and the community, impacts on employment, impacts on housing and primary services, and fiscal impacts to the City.

Noise

The EIR will identify noise impacts associated with project grading and construction, traffic generated by the proposed project, and from long term operation of proposed facilities. The EIR will analyze the extent to which noise levels on the site will comply with applicable City standards.

Population and Housing

The EIR will analyze potential housing demand and population growth inducement resulting from construction of the project and operation of new businesses.

Public Services and Utilities

The EIR will analyze potential impacts on City services including fire and police protection, schools, parks, and other public facilities. Potential impacts on wastewater treatment facilities and capacity, water supply facilities and capacity, stormwater drainage capacity, and solid waste and landfill capacity will be analyzed in the EIR. The EIR will include information provided by the water purveyor in accordance with Senate Bill 610.

Transportation/Traffic

The EIR will analyze transportation and traffic impacts from increased traffic generated by the Proposed Project, impacts from project access, parking, and circulation, and potential operational impacts of the proposed project on French Camp Road and the future planned interchange and ramps at I-5. The EIR will also analyze potential impacts of the proposed project on the existing French Camp Interchange ramp operations in the interim without the planned new interchange. The analysis will address traffic safety hazards. The analysis will also address traffic levels of service at appropriate intersections and roadway segments, on both a project-specific and cumulative basis, and will evaluate the necessity for six access points to serve the project site, as proposed.

Further Analysis of Impacts

The EIR will identify potentially significant adverse impacts of the Weston Ranch Towne Center Project and feasible measures to mitigate project impacts. A draft of the EIR is expected to be circulated for public comment in January 2006.

The EIR will also analyze growth-inducing and cumulative impacts.

The EIR will also identify and analyze alternatives to the project. The analysis will include the No-Project/No-Build Alternative (assuming the existing environmental setting remains and the site is undeveloped). The analysis will include the No-Project/Existing Entitlements Alternative (assuming the site is developed in accordance with existing zoning and General Plan designations). Other alternatives may include alternative location(s), phasing, and/or an

alternative density. The City welcomes input regarding other alternatives that should be analyzed. The EIR will also include a description of alternatives considered but not analyzed in detail.

The EIR will analyze the impacts of the project in the context of cumulative impacts. The cumulative impact analysis will consider the project's contribution to impacts caused by the project, together with other reasonably foreseeable development in the vicinity.

The EIR will address the extent to which the project may have economic or social effects that, in turn, may cause significant physical environmental effects. (CEQA Guidelines, § 15064, subd. (e).)

The EIR will address whether the project will result in impacts for which the City must adopt a "mandatory finding of significance" under CEQA Guidelines section 15065.

CITY OF STOCKTON
ENVIRONMENTAL INFORMATION AND INITIAL STUDY FORM
(Pursuant to Cal. Code of Regulations, Title 14, Sections 15063–15065)

INITIAL STUDY FILE NO: _____

EIR FILE NO: 5-04

INITIAL STUDY FILING DATE: 1-14-05

LEAD AGENCY

City of Stockton
Community Development Dept.
Planning Division
345 North El Dorado Street
Stockton, CA 95202-2306
(209) 937-8598

Note: ***The purpose of this document is to describe the project, its environmental setting, any potentially significant adverse environmental impacts which may be caused by the project or which may affect the project site and/or surrounding area, and any mitigation measures which will be incorporated into the project. Please complete all applicable portions of Section A (General Information/Project Description) and as much of Section B (Project Site Characteristics) as possible. If a question is not applicable, then, respond with "N/A." After completing Sections A and B, please sign the certification following Section B and attach any supplemental documentation and exhibits as deemed necessary. The completed form and applicable fees should be filed at the above-noted Lead Agency address.***

PLEASE TYPE OR PRINT IN DARK INK.

A. GENERAL INFORMATION/PROJECT DESCRIPTION *(Completed by Applicant)*

1. **Project Title:** Weston Ranch Towne Center
2. **Property Owner(s):** Various
   Address: Various **Zip** _____ **Phone** _____
3. **Applicant/Proponent:** Vestar Development Company
   Contact Person: Jeffrey M. Axtell
   Address: 7575 Carson Boulevard, Long Beach, CA **Zip** 90808 **Phone** (562) 938-1722
4. **Consulting Firm:** Environmental Science Associates **Contact Person:** Laurie Warner Herson
   Address: 8950 Cal Center Drive, Building 3, Suite 300, Sacramento, CA **Zip** 95826
   Phone (916) 564-4500
5. **Project Site Location:**
   a. **Address (if applicable) or Geographic Location:** The Weston Ranch Towne Center Project Area consists of 65.8 acres and is located west of Manthey Road and Interstate 5 (I-5), north of French Camp Road, and east of McDougald Boulevard and the existing Weston Ranch subdivision. The Proposed Project is located within the City of Stockton and is bounded to the south by the Stockton City Limit. The Proposed Project site is located in portions of Sections 12 and D, Township 1N, Range 6E, Mount Diablo Baseline and Principle Meridian, which is within the C. M. Weber Land Grant boundaries.

   b. **Assessor's Parcel Number(s):** 16819010, 16819009, 16819008, 16819007, 16819006, and a portion of 16817007.

   c. **Legal Description** ***[Attach metes and bounds (bearings and dimensions) description and corresponding map(s) or list existing lots of record from recorded deed]*:** See Attachment I.
6. **General Project Description: (*Describe the whole action, including later phases of the project and any secondary, support, or offsite features necessary for its implementation. Attach additional sheets if necessary.*)**
   The Weston Ranch Towne Center Project involves the rezoning (Z-13-04)the project site to CL, Commercial Large-Scale; a General Plan Amendment (GPA 10-04); issuance of a Use Permit with a Project Plan (UP 89-04); Development Agreements (DA 8-04); Tentative Maps (TM 44-04); and development of the project site with commercial retail space (up to 710,000 square Feet). Proposed land uses include large retail stores; in-line shops (located contiguously between large retail stores), retail pad stores; restaurants; fuel centers; and parking.

   The Proposed Project would also include installation of all necessary infrastructure to serve the development. It is anticipated that new (proposed) adjoining streets, existing streets within the Project Area, and utilities will be improved in conjunction with development of the project site, as required by adopted mitigation measures and/or conditions of approval of the Tentative Map, and in accordance with the Use Permit and Project Plan. Relevant improvements expected to be completed prior to or in conjunction with development of the Proposed Project include:

- Lighting for streets, parking, and other outdoor areas.
- Landscaping of the project site and street frontages.
- Design of appropriate noise barriers adjacent to residences.
- Realignment of Manthey Road. Manthey Road is to be relocated through the project site. The relocated Manthey Road will become a private, non-exclusive access easement from the northern edge of the project site to French Camp Road and the southern leg of the frontage road shall be realigned to meet the access easement on French Camp Road.
- Alteration of Henry Long Boulevard. Henry Long Boulevard is proposed to be abandoned on the west side of the Project Area in correlation with adjacent development occurring to the west of the project site. Henry Long Boulevard will not continue through the Project Area.
- Improvement of circulation system and roadways, including, but not limited to, widening French Camp Road, construction of a new north-south private road along the southwest edge of the project site which will serve as an access and service road, and intersection and traffic control improvements. The proposed traffic circulation system in the project site will be in conformance with the City of Stockton General Plan, as amended, Development Agreements and the Tentative Maps.
- Installation of streetlights, landscaping, signs and signals in appropriate areas.
- Installation of off-street bikeways, curbs, gutters, and sidewalks in appropriate areas.
- Extension of sewer, water, and storm drain lines as required and in accordance with the Tentative Map, Development Agreements and Use Permit with Project Plan for the Proposed Project, and installation/relocation of electrical, telephone, natural gas, and other utilities in the project site.

7. **Applications Currently Under City Review:** General Plan Amendment application, rezoning application, Tentative Maps application, Development Agreements, and Use Permit with a Project Plan are currently under City review.

   File Number(s): GPA 10-04, Z-13-04, DA8-04, TM 44-04, UP89-04.

8. **Other permits/reviews required by the City, County, State, Federal or other agencies for project implementation:**

Agency:	Permits/Reviews:
City of Stockton	Building Permits
City of Stockton	Water, Sewer, Storm, and Roadway Improvement Plans and Encroachment Permits
City Parks and Rec. Dept.	Removal of Oak Trees per Municipal Code Section 5-037 et seq.
RWQCB/SWRCB	Well Destruction Permits
RWQCB/SWRCB	National Pollutant Discharge Elimination System (NPDES) General Construction Permit
Other permits, as needed, to proceed with the planned development	

9. **Describe proposed General Plan (GP) amendments and/or prezoning/rezoning (Zoning) requests, if applicable:**

Existing GP Designation	Proposed GP Designation	Acres	Existing Zoning	Proposed Zoning	Acres
Commercial	Commercial		CG	CL	+/-6.0
Low-Medium Residential	Commercial		RL	CL	+/-60.0

10. **Describe any site alterations which result from the Proposed Project: (*Address the amount and location of grading, cuts and fills, vegetation/tree removal, alterations to drainage, removal of existing structures, etc.*)**
    The Proposed Project involves the development for commercial use of approximately 65.8 acres of currently vacant agricultural land. Structures scheduled to be removed include two residences, two abandoned buildings, and a utility shed located on Henry Long Boulevard. Other features that would be altered and/or removed are a storage tank and pump, and low-voltage Pacific Gas and Electric (PG&E) power lines. Trees at various locations throughout the Proposed Project site would be removed, including those south of Henry Long Boulevard, and along the west side of Manthey Road. These trees include valley oak, cottonwood, and walnut. Grading, fill, and compaction will be conducted as necessary to prepare the site for construction. Removal of asbestos is needed along the west side of Manthey Road.

11. **Specific project description/operational characteristics:**
    a. **Describe proposed commercial, industrial, institutional, and recreational uses (*all non-residential uses*):**

The proposed Weston Ranch Towne Center is planned as a commercial development including large retail space, in-line shops, retail pads, restaurants, and fuel centers.

(1) Proposed Land Use(s)	Zoning	Site Acreage	Structure Sq. Ft.	Required Parking	Parking Provided
Large Retail	CL		Max. 500,000	To be determined	
In-Line Shops	CL		Max. 100,000	To be Determined	
Retail Pads, including fuel stations	CL		Max. 60,000		
Restaurants	CL		Max. 50,000		

Additional information regarding specific site acreages and parking demand and supply will be provided in the Environmental Impact Report (EIR).

(2) Describe project phasing (*location/timing*): The Weston Ranch Towne Center is scheduled to be completed in a two phase with construction of the first phase beginning in early 2006 and continuing through September of 2006. There is no current schedule for development of the second (Barkett Property) phase.

(3) Days/Hours of operation: _____; Work shifts per day: _____
Additional information regarding the hours of operation and work shifts will be provided in the EIR.

(4) Total number of employees: ____ ; Number of employees per work shift:_____
Additional information regarding the number of employees will be provided in the EIR.

(5) Number of company vehicles/trucks: _____
Additional information regarding the number of company vehicles will be provided in the EIR.

(6) Estimated number of vehicle trip ends (TE) per day generated by project: Trucks ___ TE/Day; Passenger Vehicles, ___ TE/Day; Total, ___ TE/Day.
Additional information regarding the number of daily vehicle end trips will be provided in the EIR.

(7) Estimated maximum number of TE / Day based on General Plan Designation: TE / Day, and / or Proposed Zoning: _____ TE/Day.
Additional information regarding the number of TE/Day and the General Plan Designation will be included in the EIR.

(8) Will land use-related noise produced on site exceed adopted noise standards (*i.e.,: 45 Leq dB during nighttime or 55 Leq dB during daytime hours at nearest residential property line; 75 Lmax dB at nearest commercial property line; and/or 80 Lmax dB at nearest industrial property line*)?
Yes__X__ No ___ If yes, describe sources and levels of noise:
Noise analysis and/or monitoring will be conducted for the Proposed Project site as a part of the EIR analysis. Operational (commercial) related noise is not likely to exceed the adopted standards. However, short-term construction-generated noise may exceed established property line noise thresholds. Additional information regarding noise generation and standards will be included in the EIR.

(9) Other operational or design characteristics: None.

b. Describe Proposed Residential Land Uses: [*Check (✓) or specify applicable types]*
Conventional 1-F__, 2-F__, or 3-F__; PURD __; Condominiums __; Townhouses __ Apartments __; Dormitory/Rooming/Boarding Houses _; Elderly Apartments __; Residential Care Facility __; Employee Housing __; Mobile Homes __; Motel/Hotel/B&B; Extended Stay/Single Rm. Occupancy Facilities; Other ___
No residential land uses are proposed.

(1) Residential Land Use Summary: (3 plausible development scenarios)

Type of Unit	Zoning	Acreage	Proposed Units	Units/Acre	Max.Units Allowed	Max. Density
Not applicable.						

(2) Describe Project Phasing: *Not applicable.*

(3) Population Projection for Proposed Project: *Not applicable.*

Projected Population Density (*Persons/Unit*): *Not applicable.*

(4) Student Generation Projected for Proposed Project: *Not applicable.*

Projected Student Density (*K-12 Students/Unit*): *Not applicable.*

(5) **Estimated total number of vehicle trip ends (TE) per day generated by Proposed Project:** *Not applicable.*

(6) **Estimated maximum number of TE/Day based on proposed General Plan Designation: _ TE/Day, and/or Proposed Zoning: _____ TE/Day:** *Not applicable.*

12. **Will the project generate any substantial short-term and/or long-term air quality impacts, including regional/cumulative contributions? Yes__X__ No ___. If so, estimate the type and amount of emissions below *(e.g., tons per year of PM10, ROG, Nox, and CO)*:**

a. **Construction Emissions:** *Additional information regarding the quantity of construction-related emissions generated by the Proposed Project will be included in the EIR.*

b. **Stationary Source Emissions:** *Additional information regarding the quantity of stationary source emissions generated by the Proposed Project will be included in the EIR.*

c. **Mobile Source Emissions:** *Additional information regarding the quantity of mobile source emissions generated by the Proposed Project will be included in the EIR.*

B. PROJECT SITE CHARACTERISTICS (*Completed by Applicant and/or Lead Agency, as applicable*):

1. **Total site acreage (Ac.) (or) square footage (S.F.):** The site measures approximately 65.8 acres in area. Proposed commercial uses within the Weston Ranch Towne Center are not to exceed 710,000 square feet.

2.

Ex. General Plan Designations	Acres	Ex. Zoning (*City or County*)	Acres
Low-Medium Density Residential	+/- 60.0	RL (City)	+/- 60.0
Commercial	+/- 6	CG (City)	+/- 6

3. **Identify and describe any specific plans, redevelopment areas, and/or other overlay districts/zones which are applicable to the project site:** NA.

4. **Identify existing on-site land uses and structures:** The majority of the Project Area consists of fallow, recently disked agricultural fields. An asbestos disposal site is located along the east side of the project site. Two residences, several dilapidated buildings, and a utility shed are also located on site.

5. **Prior land uses if vacant:** N/A.

6. **Describe any on-site and adjacent utility/infrastructure improvements and right-of-ways/easements:**
Extension of existing water, sewer, and drainage infrastructure will occur under the Proposed Project. Currently these utilities are limited to pipelines located along Henry Long and Manthey Roads. Electrical lines located along Manthey Road, Henry Long Boulevard, and the interior of the site will be removed and/or relocated. A fiber-optic conduit located within the Manthey Road right-of-way may need to be relocated. Other improvements will include the extension of telephone and gas lines, and the addition of landscaping and lighting. Improvements to various roadways and intersections, may include: realignment of Manthey Road, abandonment of portions of Henry Long Boulevard, improvements to French Camp Road, and the construction of a new north-south road along a portion of the west edge of the project site.

7. **Adjacent land uses, zoning and General Plan designations:**

Adjacent Uses:	Zoning (City or County):	General Plan Designations:
East: Commercial, general; Freeway, Industrial, Open Space	City: CG, UNZ and IL	Commercial, Industrial
West: Residential, low density	City: RL	Low-Medium Density Residential
North: Low-Medium Residential, High Density Residential	City: RL, RH	High Density Residential
South: Agriculture	County: Agriculture	Agriculture

8. **If site contains at least ten (10) acres of undeveloped and/or cultivated agricultural land, complete the following:**

a. **Is the land classified as "Prime Farmland" and/or "Farmland of Statewide Importance" (*as identified on the San Joaquin County "Important Farmland Map"*)? Yes __X__ No _____**
b. **Is the site under a Williamson Act Land Conservation Contract? Yes ___ No__X__**
c. **If the site is under contract, has a "Notice of Non-Renewal" been filed?**
Yes ___ No ___ If yes, when will the contract expire? Date: _____

9. **Describe important on-site and/or adjacent topographical and water features:**
On-Site: None.

Adjacent: A drainage ditch runs south from French Camp Slough along the eastern side of Manthey Road, outside of the Proposed Project site.

10. **Describe any important on-site and/or adjacent vegetation/wildlife habitat:**
On-Site: Various large trees, including, cottonwood, oak (including heritage oaks) and walnut, are located throughout the project site; to the east along both sides of Manthey Road, and to the south of Henry Long Boulevard in the vicinity of the houses and structures. The trees provide potential nesting habitat for raptors including Swainson's hawks. Ground squirrel burrows are found at the bases of some of these trees and could be used by burrowing owls. The open disked fields provide foraging habitat for various bird species.

11. **Describe any general and special status wildlife species known to inhabit the site or for which the site provides important habitat:** A pair of Swainson's hawks with fledglings is nesting in the existing residential area northwest of the Proposed Project site, and using the site's open fields to forage. The project site provides potential habitat for several other species, including but not limited to: giant garter snake, burrowing owl, and valley elderberry longhorn beetle. Surveys for these species have not yet been conducted. Additional information regarding special-status species will be included in the EIR.

12. **Identify and describe any significant cultural resources on or near the site (*attach a "Records Search," "Site Survey," and/or other documentation, if applicable*):** No archaeological resources were identified in the Proposed Project Area as a result of a cultural resources records search conducted at the Central California Information Center. However, the entire Proposed Project Area has not been surveyed for the presence of archaeological resources. The analysis conducted for the EIR will include cultural and historical resource surveys of all portions of the project site that have not already been inspected. Any identified archaeological sites will be recorded on standard site record forms and discussed in the EIR.

13. **Identify and describe any on-site or nearby public health and safety hazards or hazardous areas (*attach a "Preliminary Site Assessment" and/or "Remediation Plan," if applicable*):** The Phase 1 Environmental Assessment prepared for the Project Area identified an asbestos disposal site located along the east side of the Proposed Project site. This and other hazardous material issues will be addressed in the EIR.

14. **Identify and describe any potentially hazardous geologic/soil conditions:** N/A.

15. **Is any portion of the site subject to a 100-year flood? Yes __ No _X_ If so, what flood zone?**

16. **Identify and describe, below, any existing and/or projected on-site ambient noise levels which exceed adopted noise standards (*plot noise contours on proposed tentative maps or on a site plan for the project, if applicable*):**
Additional information regarding noise levels generated by the Proposed Project will be included in the EIR.

    a. **Do on-site ambient noise levels from existing land uses (locally regulated noise sources) located on-site or off-site exceed adopted noise standards? Yes_X_ No ___. If so, describe:** Noise from I-5 may exceed adopted exterior noise standards and will be identified and addressed in the EIR.

    b. **Does or will transportation-related noise exceed 60 dB Ldn at any exterior location or 45 dB Ldn at any interior location? Yes_X_ No ___. If so, describe:** See a. above.

17. **Indicate by checking (✔) whether the following public facilities/infrastructure, utilities, and services are presently or readily available to the project site and whether the Proposed Project can be adequately served without substantial improvements or expansion of existing facilities and services. If new or expanded/modified facilities or services are necessary, explain below.**

		Yes	No	N/A
a.	Water supply/treatment facilities	X*		
b.	Wastewater collection/treatment facilities	X		
c.	Storm drainage, flood control facilities	X		
d.	Solid waste collection/disposal/recycling services	X		
e.	Energy/communication services	X		
f.	Public/private roadway and access facilities	X		
g.	Public/private parking facilities		X	
h.	Other public/private transportation services (public transit, railway, water or air transport, etc.)	X		
i.	Fire and emergency medical services	X		
j.	Police/law enforcement services	X		
k.	Parks and recreation services			X
l.	Library services			X
m.	General government services			X

n. School facilities ___ ___ X

Explanation(s): The Proposed Project will included parking facilities to service the Weston Ranch Towne Center. Parking supply and demand will be addressed in the EIR. *A water supply assessment will be required and will be addressed in the EIR. At this time, however, it is assumed that adequate water is available to serve the project and connections will be made to existing water infrastructure in the area.

SIGNATURE (*Completed by Owner or Legal Agent*)

I certify, under penalty of perjury, that the foregoing is true and correct and that I am (*check one*):

_____Legal property owner (*owner includes partner, trustee, trustor, or corporate officer*)
__X__Owner's legal agent, authorized project applicant, or consultant (*attach proof of consent to file on owner's behalf*)

(*Signature*) **November 15, 2005**
(*Date*)

Laurie Warner Herson; Director, Environmental Science Associates
(*Type or Print Name and Title*)

C. ENVIRONMENTAL SIGNIFICANCE CHECKLIST ***(Completed by Lead Agency or Authorized Consultant -- Check (✓) Responses and Provide Supporting Documentation and References, as applicable]:)***

- ***In completing this Checklist, the Lead Agency shall evaluate each environmental issue based on the preceding Sections A and B of this Initial Study and shall consider any applicable previously-certified or adopted environmental analysis. The decision as to whether a project may have one or more significant effects shall be based on substantial evidence in light of the whole record before the Lead Agency. All answers must take into account the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.***

- ***Following each section of this Checklist is a subsection to incorporate environmental documentation and to cite references in support of the responses for that particular environmental issue. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources the Lead Agency cites (in parentheses) at the end of each section. This subsection provides (a) the factual basis for determining whether the proposal will have a significant effect on the environment; (b) the significance criteria or threshold, if any, used to evaluate each question; and (c) the new or revised mitigation measures and/or previously-adopted measures that are incorporated by reference to avoid or mitigate potentially significant impacts. Mitigation measures from Section D, "Earlier Analyses," may be cross-referenced. In addition, background and support documentation may be appended and/or incorporated by reference, as necessary. This section is required to support a "Mitigated Negative Declaration." If an Environmental Impact Report (EIR) will be prepared, this section shall provide an "EIR Scope of Work" in order to focus on issues to be addressed in the Draft EIR.***

- ***A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project site is not subject to flooding). A "No Impact" answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).***

- ***Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is "Potentially Significant," "Less-than-Significant with Mitigation Incorporated," or "Less-than-Significant." "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant and mitigation measures to reduce the impact to a less-than-significant level have <u>not</u> been identified or agreed to by the project applicant. If there are one or more "Potentially Significant Impact" entries upon completing the Checklist, an Environmental Impact Report (EIR) is required.***

- ***The "Less-than-Significant with Mitigation Incorporated" category applies when revisions in the project plans or proposals made, or agreed to, by the applicant would avoid or mitigate the effect(s) of the project to a point where, clearly, no significant adverse environmental effect would occur. The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less-than-significant level. Upon completing the Checklist, if there is no substantial evidence in light of the whole record before the Lead Agency that the project, as revised, may have a significant effect on the environment, then, a "Mitigated Negative Declaration" shall be prepared.***

- ***The Checklist shall incorporate references to common or comprehensive information sources [e.g., the City's General Plan, redevelopment plans, infrastructure master plans, zoning ordinance/development code(s), and related environmental documents, etc.] for potential regional (Citywide) and cumulatively considerable impacts. In addition, any prior site-specific environmental documents and/or related studies (e.g., traffic studies, geo-technical/soils reports, etc.) should be cited and incorporated by reference, as applicable. Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated. Referenced documents shall be available for public review in the City of Stockton Community Development Department, Planning Division, 345 N. El Dorado St., Stockton, CA.***

- ***Supporting Information Sources: A source list should be attached and other sources used and/or individuals contacted should be cited in the discussion.***

ENVIRONMENTAL SIGNIFICANCE CHECKLIST

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
1. AESTHETICS – Would the project:				
a. Have a substantial adverse effect on a scenic vista?				X
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?				X
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	X			
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	X			

Supporting Documentation/References Cited: City of Stockton Community Development Department, Planning Division. City of Stockton General Plan, Background Report, Adopted January 22, 1990.
California Department of Transportation, California Scenic Highway Mapping System for San Joaquin County, accessed online at: http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm on July 8, 2003.

a. No scenic resources are identified in the City of Stockton General Plan in the vicinity of the Proposed Project site. ESA's site visit conducted on June 19, 2003 confirmed a lack of scenic visual resources near the Proposed Project Area. Views in and around the Proposed Project site consist of modern residential neighborhoods (to the north and west) and residential construction (to the west), of trees, recently graded fill, Manthey Road and the I-5 corridor to the east, and of agricultural fields, several residential and commercial structures, and a water tower to the south. *No impact is anticipated*.

b. No designated scenic highways are located in the vicinity of the Proposed Project site. I-5, French Camp Road, William Moss Boulevard, and Manthey road are the major roadways servicing the Proposed Project Area. None of these roads is designated as scenic by the Department of Transportation's Scenic Highway Map for San Joaquin County. *No impact is anticipated*.

c. The existing visual character of the Proposed Project Area is defined by Manthey Road and the I-5 corridor to the east, fallow agricultural field to the north, modern residential neighborhoods to the northwest, and parcels of agricultural land interspersed with occasional residential commercial, and utility structures to the south. The visual character of the proposed site is agricultural, comprised of recently tilled fields and scattered residences. No large commercial development is currently visible from the Proposed Project site or adjacent areas. Construction and operation of a large commercial development has the potential to degrade the visual character of the Proposed Project site, through the establishment of parking facilities, large commercial units, street lighting, etc. *This is a potentially significant impact that will be addressed in the EIR.*

d. Construction and operation of the proposed Weston Ranch Towne Center will involve new sources of lighting and/or glare with the potential to affect day and nighttime views in the area. During construction, any night-time work would require external lighting. Operation of the completed development would require lighting of both commercial buildings and parking structures for safety purposes. *This is a potentially significant impact that will be addressed in the EIR*.

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
2. <u>AGRICULTURAL RESOURCES</u> – In determining whether impacts on 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 Department of Conservation. 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?	X			
b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?				X
c. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use?				X

Supporting Documentation/References Cited: City of Stockton Community Development Department, Planning Division. City of Stockton General Plan, Background Report, Adopted January 22, 1990
California Department of Conservation, Farmland Mapping and Monitoring Map for San Joaquin County, 2000.
Appraiser of the Day, San Joaquin County Assessor's Office, personal communication, July 16, 2003.

a. According to the Department of Conservation's (DOC) Important Farmland Maps for San Joaquin County (2002 Series), a vast majority of the project site is classified as prime farmland. Implementation of the Proposed Project would convert all 59.68 acres of prime farmland to commercial use. Based on the quality of farmland present on-site in conjunction with the tremendous growth pressures exerted on agricultural areas within San Joaquin County, the conversion of prime farmland to non-agricultural use is considered a *potentially significant* impact. Unavoidable, cumulative environmental impacts resulting from conversion of agricultural land in the project site have been addressed in previous documents and have been considered and accepted through previous Statements of Overriding Considerations in connection with the approval of Weston Ranch and/or the adoption of the Stockton General Plan.

b. According to the San Joaquin County Assessor's Office, all Williamson Act Contracts for parcels less than 10 acres have been cancelled. None of the on-site parcels larger than 10 acres is under Williamson Act Contract. *No impact is anticipated.*

c. The Project does not propose other changes which would result in farmland conversion. *No Impact is expected.*

	Potentially Significant Impact		Less-than-Significant with Mitigation Incorporated		Less-than-Significant Impact		No Impact
3. <u>AIR QUALITY</u> – When 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?	X						
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	X						
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	X						
d. Expose sensitive receptors to substantial pollutant concentrations?	X						
e. Create objectionable odors affecting a substantial number of people?							X

Supporting Documentation/References Cited:

a. Both construction and operation of the Proposed Project would increase the number of vehicle trips originating to and from the site. Construction and grading activities also have the potential to generate substantial quantities of dust. Such increases would conflict with the San Joaquin Ozone and PM-10 Attainment Plans in trying to reduce these types of emissions. *This is a potentially significant impact that will be discussed in the EIR*.

b. The site would require additional grading and compacting during the site preparation. These activities have the potential to generate substantial amounts of fugitive dust, resulting in increases in local and regional PM-10 emissions. The close proximity of the proposed site to new residential areas could result in nuisance effects to adjacent residents during construction activities.

The Proposed Project would result in a substantial increase in the number of vehicle trips going to and coming from the project site. The increase in vehicle trips would result in an increase in emissions of PM-10 and NOx and ROG (gases that are precursors to ozone formation). Additionally, the increases in criteria pollutants would be cumulatively considerable and could impact the regions ability in acquire attainment status for currently nonattainment ozone and PM-10. *These are potentially significant impacts that will be addressed in the EIR*.

c. See b. above.

d. Residential subdivisions like those in the existing Weston Ranch vicinity are typically classified as potential sensitive receptors. The Proposed Project has the potential to expose residents in the area to increased vehicle emissions (NOx, ROG, and PM-10). Commercial use of the proposed development could also expose nearby residents to additional exhaust generated by idling vehicles at loading docks, and to fuel vapors released at gas stations. *This is a potentially significant impact that will be further addressed in the EIR.*

e. No odor-producing uses are proposed as part of the project. *No impact is anticipated.*

Calculations showing the quantitative increase in operational emissions, along with potential mitigation measures for the construction and operational phases will be discussed in the EIR.

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
4. <u>BIOLOGICAL RESOURCES</u> – Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X
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, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?				X
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?		X		
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		X		
f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?		X		

Supporting Documentation/References Cited: *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan*, November 14, 2000 (adopted December 7, 2000). California Department of Fish and Game (CDFG) Natural Diversity Database, 2000.

a. The project site is dominated by tilled agricultural land, but also contains the following features: large trees located along the eastern boundary and near the structures on Henry Long Road, and an unlined drainage ditch west of I-5, outside the Proposed Project site, that runs north-south along Manthey Road, Ground squirrel (*Spermophilus beecheyi*) burrows occur under the trees throughout the property. These features could provide suitable habitat for the following species identified as a candidate, sensitive, or special-status species:

- Swainson's hawk (*Buteo swainsoni*). Swainson's hawks could nest in the large trees and could use the agricultural fields for foraging. Swainson's hawks and nests have been identified in and immediately adjacent to the project site. The Proposed Project could have direct or indirect impacts on this species through disturbance during the breeding season, and permanent removal of foraging habitat.

- Burrowing owl (*Athene cunicularia*). Burrowing owls could nest in the ground squirrel burrows and could forage in the agricultural fields. A burrowing owl nest is recorded from 0.3 miles south of the project site. The Proposed Project could have direct or indirect impacts on this species through disturbance or direct take during the breeding season, and permanent removal of foraging habitat.

  These two species are covered in the San Joaquin County Multi-species Habitat Conservation and Open Space Plan (HCP) adopted by the San Joaquin Council of Governments on December 7, 2000. The project applicant has the option to mitigate for impacts to these species by paying development fees to the County, as prescribed in the HCP. If the project does not participate in the HCP, then mitigation would include:

- Mitigation measures for impacts to Swainson's hawks shall include: 1) Prohibition of construction activities within ¼ mile of an active nest during the breeding season (March 1 – September 15) without the approval of a local CDFG biologist. 2) No nest trees would be removed for the project without receiving a Management

Authorization from the CDFG. 3) Foraging habitat shall be replaced at a ratio specified in the November 1994 CDFG Staff Report on Mitigation for Impacts to Swainson's hawks in the Central Valley of California (i.e., 1:1 ratio for lands within 1 mile of an active nest tree, 0.75:1 for lands within one to five miles of an active nest tree; and 0.5:1 for areas within 5 to 10 miles of an active nest tree).

- Mitigation measures for impacts to burrowing owls shall include: 1) Surveys of the project site and a 150 meter buffer during both the wintering and nesting seasons, unless burrowing owls are detected on the first survey, to determine if the site is occupied. 2) A subsequent survey within 30 days prior to construction will be performed to ensure that the site has not become occupied since the previous surveys. 3) If the site is occupied by burrowing owls, appropriate mitigation will be developed in consultation with CDFG.

These potential conflicts and mitigation measures will be discussed in the EIR, and are expected to reduce HCP and special species conflicts to a less-than-significant level.

b. Riparian habitat and a portion of French Camp Slough are located approximately 2,000 feet north of the project site. The Proposed Project would avoid potential impacts to the riparian zone and the Slough (Waters of the U.S.) by avoiding these areas completely. Other potential wetlands located near but outside the project site include a drainage ditch running parallel to Manthey Road, and a pond at the Weston Ranch Clubhouse. No wetlands that would be subject to permits issued under Section 404 of the Clean Water Act and a CDFG Code 1600–1603 Streambed Alteration Agreement Have been identified on the project site. *No impact is anticipated*.

c. See b. above.

d. Extensive residential development is located to the north and west, and by Manthey Road and the I-5 corridor on the east. Although the land has historically been used for farming, it could serve as a flyway and is documented foraging, and potential nesting habitat for Swainson's hawks and other raptors. *Mitigation measures which would reduce impacts to nesting and/or migratory wildlife to a less-than-significant level will be addressed in the EIR.*

e. The Open Space and Conservation section of the Stockton General Plan's Natural and Cultural Resources Element addresses impacts to trees. Policy 5 of the Open Space section seeks to "preserve existing Valley Oak trees which are healthy." Several large valley oaks are located on the project site and would be removed under the Proposed Project. *Mitigation measures which would reduce impacts to valley oaks to a less-than-significant level will be addressed in the EIR.*

f. The Proposed Project should not conflict with the San Joaquin Multi-species Habitat Conservation and Open Space Plan (HCP) that was adopted by the San Joaquin Council of Governments on December 7, 2000. The HCP provides mitigation for impacts to sensitive biological resources and the loss of natural habitat resulting from the construction of residential developments within the plan area. Compliance with the HCP is voluntary, and would result in no special species plan conflicts. *Compliance with the HCP and additional special status wildlife mitigation measures will be addressed in the EIR. The project proponents will mitigate biological impacts by paying applicable habitat fees and implementation of Incidental Take Minimization Measures, in accordance with the HCP.*

	Potentially Significant Impact		Less-than-Significant with Mitigation Incorporated		Less-than-Significant Impact		No Impact
5. <u>CULTURAL RESOURCES</u> – Would the project:							
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	X						
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?			X				
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X				
d. Disturb any human remains, including those interred outside of formal cemeteries?			X				

Supporting Documentation/References Cited:

a. No historical resources were identified in the Proposed Project Area as a result of a cultural resources records search conducted at the Central California Information Center of the California Historical Resources Information System. A field review, however, identified two historic-period buildings within the Project Area. Because these structures have not been evaluated for possible listing on the California Register of Historic Resources (CRHR), they are considered potentially significant resources. Destruction of a significant historical resource would be considered a significant adverse impact. *The EIR will address the potential significance of these structures and determine if destruction of the structures would be a significant impact.*

b. No archaeological resources were identified in the Proposed Project Area as a result of a cultural resources records search conducted at the Central California Information Center, although the entire Proposed Project Area has not been systematically inspected for the presence of archaeological resources. The analysis conducted for the EIR will include an archaeological inspection of all portions of the project site that have not already been inspected and any identified archaeological sites will be recorded on standard site record forms. *The EIR will include mitigation measures to avoid or reduce significant impacts on known archaeological sites and for archaeological sites that could be unearthed during construction activities.*

c. No paleontological resources or unique geologic features have been noted within the Project Area. Because of the deep depositional context of the soils in the Project Area, the location is considered to have low sensitivity for the presence of paleontological resources near the surface. *The EIR will include mitigation measures in the event that potentially significant paleontological resources are discovered during project construction.*

d. No human remains were identified in the Proposed Project Area as a result of a cultural resources records search conducted at the Central California Information Center. The analysis conducted for the EIR will include an archaeological inspection, including an inspection for indications of the presence of buried human remains, of all portions of the project site that have not already been inspected. *The EIR will include mitigation measures to avoid or reduce significant impacts on any identified human remains and for any human remains that could be unearthed during construction activities.*

	Potentially Significant Impact		Less-than-Significant with Mitigation Incorporated		Less-than-Significant Impact		No Impact
6. <u>GEOLOGY AND SOILS</u> – Would the project:							
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:							
(1) 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.							X
(2) Strong seismic groundshaking?					X		
(3) Seismic-related ground failure, including liquefaction?							X
(4) Landslides?							X
b. Result in substantial soil erosion or the loss of topsoil?					X		
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 an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?					X		
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?							X
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?							X

Supporting Documentation/References Cited:

a(1). <u>A review of Special Publication 42 for areas in the vicinity of the project indicates that the site is not located within an Alquist-Priolo Earthquake Fault Zone. The site is not located within 15 km of a Type A or Type B fault source as defined by CBC Table 16A-U. Impacts resulting from rupture of a known earthquake fault are therefore unlikely to expose people or structures to the risk of loss, injury, or death. *No impact is anticipated.*</u>

a(2). <u>Due to the relatively close proximity of several fault sources, including the Concord/Green Valley, Great Valley Fault (segment 3 and 4), Foothills Fault, and San Andreas fault systems, the maximum estimated peak ground acceleration for the project site is 0.30g (Peterson et. al., 1999). This is considered relatively low as compared to other localities in California. Design of project-related structures in conformance with the 1997 UBC Seismic Design Parameters for Seismic Zone 3 and CBS amendments should be sufficient to prevent significant damage from ground shaking during seismic events resulting from movement on any of the local faults and/or fault systems. Design of the project in conformance with the design parameters provided in the Geotechnical Engineering Investigation would minimize these risks. *This is a less-than-significant impact.*</u>

a(3). <u>Soils encountered on-site during the field investigation are predominantly interbedded, relatively cohesive fine sandy loam soils. Groundwater in the vicinity of the Project Area is approximately 8 to 12 feet below the ground surface. Taking into account these factors in conjunction with the maximum credible earthquake expected in the Project Area, the potential for liquefaction, lateral spreading, or differential settlement is considered low. *No impact is anticipated.*</u>

a(4). <u>The project site is essentially level. *No impact is anticipated.*</u>

b. <u>Compliance with the City's grading ordinance and NPDES permit would minimize impacts in terms of erosion of topsoil. *This is a less-than-significant impact.*</u>

c. According to the Geotechnical Engineering Report, no significant deposits of loose, cohesionless soils exist beneath the site. The potential for ground lurching, differential settlement or lateral spreading occurring during or following seismic events near the site are considered to be very low, provided prudent geotechnical engineering recommendations are followed during site preparation. *This is a less-than-significant impact.*

d. The site is comprised of Veritas fine sandy loam soils according to the Soil Survey for San Joaquin County. These soils are considered deep (greater than 70 inches), well-drained, and have a cemented hard-pan below 70 inches. According to Table 18 of the Soil Survey, these soils are indicated as having a low shrink-swell potential, which is not indicative of expansive soil conditions. *No impact is anticipated.*

e. The Proposed Project does not propose the use or construction of an on-site wastewater treatment facility, such as septic tanks or alternative wastewater disposal systems. *No impact is anticipated.*

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
7. <u>HAZARDS AND HAZARDOUS MATERIALS</u> – Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		X		
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?		X		
c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?		X		
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?		X		
e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?		X		
f. Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?				X
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
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?		X		

Supporting Documentation/References Cited: <u>Twining Laboratories, Inc., Phase I Environmental Assessment Property Located Northwest of the Intersection of French Camp and Manthey Roads Stockton, California, May 16, 2003.</u>
<u>Kim Kloeb, Senior Regional Planner San Joaquin Council of Governments, personal communication July 16, 2003.</u>

a. <u>The proposed commercial development includes plans for gasoline stations that would store and dispense fuel. Delivery and storage of fuel would be required for the operation of these stations and fuel trucks would travel through the area on a regular basis. A disposal site containing asbestos was identified along the eastern border of the project site that will require removal, transport, and disposal of the material at an approved landfill. *Mitigation measures are expected to reduce these impacts to a less-than-significant level will be identified and discussed in the EIR.*</u>

b. <u>See a. above.</u>

c. <u>The Great Valley Elementary School is located at 4223 McDougald Boulevard, approximately 1,000 feet from the western boundary of the Proposed Project Area. The proposed commercial development includes plans for gasoline stations that would store and dispense fuel. Delivery and storage of fuel would be required for the operation of these stations and fuel trucks would travel through the area on a regular basis. Truck routes that avoid the surrounding school area will also be considered. In addition, a disposal site containing asbestos was identified along the eastern border of the project site that will require removal, transport, and disposal of the material at an approved landfill. If the asbestos is not handled properly, it could result in the release of asbestos fibers into the air. *Existing state and*</u>

federal regulations for the handling of hazardous materials as well as Mitigation measures are expected to reduce these impacts to a less-than-significant level will be identified and discussed in the EIR.

d. The California Integrated Waste Management Board database indicates that an asbestos disposal site is located within the project site. If this area is disturbed without proper precautions it could result in a hazard to the public or the environment. Existing state and federal regulations for the handling of hazardous materials will reduce potential impacts to a *less-than-significant level and will be addressed in the EIR.*

e. The project site is located approximately two miles west of the Stockton Metropolitan Airport. Although the project site does not fall within the County's Airport Land Use Commission Planning boundary, it is located within the airport's Conical Zone. To avoid posing a hazard to air traffic, highly reflective surfaces are not allowed in this zone. The new structures associated with the Weston Ranch Towne Center have the potential to conflict with this standard. *Mitigation measures which would reduce visual impacts to air traffic to a less-than-significant level will be addressed in the EIR.*

f. No private airstrips have been identified in the vicinity of the Weston Ranch Towne Center site. *No impact is anticipated.*

g. As part of the Proposed Project, the development will be required to coordinate with local law enforcement officials and the City Fire Department, in order to develop an emergency evacuation plan for the development. *This is a less-than-significant impact.*

h. Much of the Proposed Project site is covered with vegetation, which poses a risk of fire during construction activities. *Mitigation measures which would reduce potential wildfire impacts to a less-than-significant level will be addressed in the EIR.*

Many past and present land uses in the Proposed Project Area, including a known asbestos disposal area, may have resulted in localized contamination conditions that could potentially lead to the exposure of the public if disturbed.

The EIR will assess hazardous conditions associated with the project site, including the potential for disturbance of hazardous materials and the potential for fire hazards during construction activities.

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
8. <u>HYDROLOGY AND WATER QUALITY</u> – Would the project:				
a. Violate any water quality standards or waste discharge requirements?		X		
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in 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 that would not support existing land uses or planned uses for which permits have been granted)?	X			
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 that would result in substantial erosion or siltation onsite or offsite?		X		
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?		X		
e. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?		X		
f. Otherwise substantially degrade water quality?		X		
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?				X
h. Place within a 100-year flood hazard area structures that would impede or redirect floodflows?				X
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?				X
j. Contribute to inundation by seiche, tsunami, or mudflow?				X

Supporting Documentation/References Cited: <u>City of Stockton, City of Stockton General Plan Background Report. Adopted January 22, 1990</u>
<u>City of Stockton, Stormwater Division, Model Storm Water Pollution Prevention Plan for Construction Activities. May 15, 1997</u>
<u>Update of the North Stockton Master Water Plan, 1985. prepared for the City of Stockton by Leedshill-Herkenhoff, Inc., March 1985</u>
<u>Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map for City Stockton, California, Community-Panel Numbers 060302 0035 E. Revised April 2, 2002</u>

a. <u>Construction of the Proposed Project has the potential to expose bare soil and potentially generate other water quality pollutants that could be exposed to precipitation and subsequent entrainment in surface runoff. Construction activities involving soil disturbance, excavation, cutting/filling, and grading activities could result in increased erosion and sedimentation to surface waters. Construction materials such as asphalt, concrete, and equipment fluids could be exposed to precipitation and subsequent runoff. If precautions are not taken to contain contaminants, construction could produce contaminated stormwater runoff (nonpoint source pollution), a major contributor to the degradation of water quality. During construction and grading, erosion and sediment control measures will be conducted in accordance with City of Stockton's stormwater management requirements and best management practices for the reduction of pollutants in runoff (City of Stockton, City of Stockton General Plan Background Report. Adopted January 22, 1990; City of Stockton, Stormwater Division, Model Storm Water Pollution Prevention Plan for</u>

Construction Activities. May 15, 1997). The Proposed Project would be subject to NPDES requirements and would require the acquisition of a NPDES general construction permit (State Water Resources Control Board [SWRCB], NPDES, General Construction Permit Requirements). The Proposed Project will also be required to provide post construction Best Management Practices (BMP's) as part of the projects design per City of Stockton Code 7-859 to prevent and contain surface water runoff. *These existing standards and requirements and mitigation measures which will reduce the impacts will be addressed in the EIR.*

b. Historically, combined annual groundwater pumping for municipal and agricultural uses has caused a lowering of the ground water level (Update of the North Stockton Master Water Plan, 1985 prepared for the City of Stockton by Leedshill-Herkenhoff, Inc., March 1985). Although there has been a deterioration of water quality in some wells due to intrusion into the basin, the City's groundwater is generally of good quality, with sequestering of iron and manganese, and chlorination being the only treatment required. Iron and manganese sequestering is utilized only at a few wells which exceed the secondary contaminant levels for those constituents.

Given the shallow groundwater depth, in conjunction with relatively course soil materials, it is likely that some level of groundwater recharge occurs on site. Development of the project site would reduce the amount of water infiltration occurring on site. The Proposed Project will require a reliable water supply, which in conjunction with other existing and proposed residential developments, could result in the further lowering of the regional groundwater aquifer. However, the city is activity seeking new surface water supplies and it is anticipated that a firm and adequate water supply will be available; thus reducing the city's reliance on existing groundwater supplies. Since the project entails development of more than 500,000 square feet of retail, a Water Supply Assessment will be conducted. *This issue will be analyzed extensively in the EIR.*

c. The project will result in substantial changes to the existing drainage on the property, and will result in a substantial decrease in the water infiltration capacity of the site, due to a substantial increase in the amount of impervious surfaces on the property. These changes may impact water quality, site drainage, and flooding hazards. *Existing city, state and federal standards and mitigation measures to reduce these impacts will be addressed in the EIR.*

d. See c. above.

e. See c above.

f. See a. above.

g. The Project Area is not located within a designated Flood Zone that would be inundated by 100-year flood event as delineated by the Federal Emergency Management Agency (Federal Emergency Management Agency, 2002. *No impact is anticipated.*

h. See g. above.

i. See g. above.

j. Not applicable to the Proposed Project. *No impact is anticipated.*

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
9. LAND USE AND PLANNING – Would the project:				
a. Physically divide an established community?				X
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	X			
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?		X		

Supporting Documentation/References Cited: City of Stockton Planning Division, Stockton General Plan Land Use/Circulation Diagram, accessed online at: http://www.stocktongov.com/CD/pages/genplan-map.pdf on July 11, 2003.
City of Stockton Planning Division, City of Stockton Zoning District Map, accessed online at: http://www.stocktongov.com/CD/pages/zoning-map.pdf on July 11, 2003.

a. The Proposed Project is not anticipated to divide an established community. Residential neighborhoods are located north and northwest of the project site along William Moss Boulevard and McDougald Boulevard. Addition residential construction is planned south of Henry Long Avenue between McDougald and the Proposed Project Area. The proposed commercial development does not intersect or geographically isolate any of these existing or planned communities. The Proposed Project Area is a contiguous site that abuts, but does not fragment, residential neighborhoods.

b. Portions of the site under consideration are designated and zoned for residential uses. In order to achieve consistency with the General Plan, the City would need to rezone and re-designate these sections of the Proposed Project site.

The Proposed Project's retail development will likely compete with similar existing retail businesses both within the city and other retail stores in the region. The proposed project's economic impact on the existing retail businesses within the city will depend on: (1) the current economic vitality of the existing retail businesses within the city; and, (2) the nature and extent of its competitive influence. If the combined effect would be expected to result in the closure of the existing business and there is insufficient demand for the vacated buildings then "urban decay" impacts might occur, resulting in a potentially significant adverse physical impact. However, the significance of potential urban decay influence on the city would also likely be related to the net fiscal impacts that the Proposed Project would have on the city's budget from city services, tax revenues and possible mitigation measures. This is a potentially significant impact that will be addressed in detail in the EIR.

c. San Joaquin County has implemented a county-wide Habitat Conservation and Open Space Management Plan. Under this SJHCP, projects can mitigate for impacts to plant and wildlife species that are "covered" under the HCP. At least one species "covered" by the Plan, Swainson's hawk, uses the Proposed Project site as habitat. Impacts to covered species can be mitigated through a fee payment that is then used to purchase conservation easements or otherwise preserve open space lands. *Mitigation measures consistent with the Habitat Conservation Plan that will reduce these impacts to less-than-significant levels will be discussed in the EIR.*

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
10. <u>MINERAL RESOURCES</u> – 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?				X
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?				X

Supporting Documentation/References Cited:

a. According to available Mineral Resource Maps produced by the California Geological Survey (previously the Division of Mines and Geology) the project site is not located within a designated MRZ-2 zone. *As a result, no impact is anticipated*.

b. According to available Mineral Resource Maps provided in the City of Stockton General Plan, the subject property is not located within a designated locally-important mineral resource zone. *As a result, no impact is anticipated*.

	Potentially Significant Impact		Less-than-Significant with Mitigation Incorporated		Less-than-Significant Impact		No Impact
11. NOISE – Would the project:							
a. Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?	X						
b. Expose persons to or generate excessive groundborne vibration or groundborne noise levels?			X				
c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X				
d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X				
e. Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?					X		
f. Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?							X

Supporting Documentation/References Cited:

Noise sensitive land uses in the project vicinity include the existing residential communities to the west along McDougald Boulevard. The Great Valley Elementary School located at 4223 McDougald Boulevard, and Long Park located ½ mile from the intersection of French Camp Road and McDougald Boulevard. The primary existing source of noise at the site is automobile and truck traffic on I-5. Secondary traffic from French Camp Road, and construction noise from the residential development north of Henry Long and east of McDougald also contribute to ambient noise levels.

a. The project would generate noise on a temporary basis during the construction phase and over the long-term during the operational phase. During the construction phase, adjacent land uses, including residential uses, would experience a temporary increase in noise levels due to operation of construction equipment. Construction associated with the project would involve excavation, grading, earth movement, and vehicle travel to and from the project site. Construction-related material haul trips would raise ambient noise levels along haul routes, depending on the number of haul trips made and types of vehicles used. Based on what is known about typical construction noise levels, project construction could substantially increase noise levels at nearby residences and other sensitive receptor locations intermittently for the duration of construction activities. The resultant noise levels could exceed applicable city standards. Without mitigation (e.g., limitations on hours of construction), construction noise could be a potentially significant impact of the project. This impact is tempered by the fact that construction impacts are temporary. *Construction-related noise impacts are a potentially significant impact that will be addressed in the EIR.*

Over the long-term, project-related traffic could increase roadside noise levels at sensitive receptor locations in the project vicinity. Operational noise will also result from the idling of delivery trucks, refrigeration units on trucks, trash compactors, HVAC systems and other loading dock activities. *Project-related traffic noise impacts will be evaluated further in the EIR.*

b. The Proposed Project would generate groundborne vibration and (potentially) groundborne noise only during the construction phase. Construction of large commercial buildings could result in significant groundborne vibration or groundborne noise effects. As a result, the Proposed Project may expose people to or generate excessive groundborne vibration or groundborne noise levels. *These impacts are considered temporary in nature and will be addressed in the EIR.*

c. Over the long-term, the project would result in an increase in ambient noise levels due to related motor vehicle traffic using local streets. The project would generate additional daily vehicle trips. These trips would be distributed on the local roadway network. The distribution of traffic and potential impacts on roadside noise levels where sensitive receptors are present will be evaluated in the subsequent EIR being prepared for this project. Increases in roadside

noise levels could be substantial and could cause noise levels to exceed the compatibility guidelines for affected land uses. *Mitigation measures which would reduce ambient noise impacts to a less-than-significant level will be addressed in the EIR.*

d. See a. above.

e. The Proposed Project is located approximately 1.8 miles west of the Stockton Municipal Airport. The EIR will analyze possible noise effects from the airport. New jobs in the Weston Ranch Towne Center will be primarily indoors, where airport noise levels will be further reduced due to standard noise-attenuating building fabrications. *A less-than-significant impact is expected*.

f. No private airstrips have been identified in the vicinity of the Weston Ranch Towne Center site. *No impact is anticipated.*

	Potentially Significant Impact		Less-than-Significant with Mitigation Incorporated		Less-than-Significant Impact		No Impact
12. POPULATION AND HOUSING – Would the project:							
a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	X						
b. Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?					X		
c. Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?					X		

Supporting Documentation/References Cited: City of Stockton Community Development Department, Planning Division. City of Stockton General Plan, Background Report, Adopted January 22, 1990.

a. The Proposed Project has the potential to induce population growth in the south Stockton area. Although intended to provide an employment base for existing communities in the area, construction of new commercial space and operation of new businesses could attract new workers and residents to the area. New commercial development might also result in growth-inducing impacts on agricultural land, including land south of the City of Stockton. *This is a potentially significant impact that will be addressed in the EIR.*

b. There are two residences located within the Proposed Project Area. Removal of these houses would not displace a "substantial number of existing housing units." Displacement of the two houses is not anticipated to necessitate the construction of additional housing. *As a result, a less-than-significant impact is expected.*

c. The residents of two houses will be displaced under implementation of the Proposed Project. The small number of people involved is not anticipated to necessitate the construction of replacement housing. *As a result, a less-than-significant impact is expected.*

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
13. PUBLIC SERVICES – Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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 following public services:				
(1) Fire protection?		X		
(2) Police protection?		X		
(3) Schools?				X
(4) Parks?				X
(5) Other public facilities?		X		

Supporting Documentation/References Cited: City of Stockton, Department of Parks and Recreation, accessed online at: http://www.stocktongov.com/parks/parks/parkdiv.htm on July, 11, 2003.
City of Stockton Fire Department, accessed online at: http://www.stocktongov.com/fire/index.htm on July 11, 2003.
City of Stockton Police Department, accessed online at: http://www.stocktongov.com/police/index.htm on July 10, 2003.

a.(1) The City of Stockton Fire Department provides fire protection services for 280,000 people over 86 square miles in the greater Stockton area, including the Proposed Project site. The Department operates 12 stations w/ 12 housing companies and 3 truck companies and a total of 258 firefighting staff and employees. Since 1983, the Department has maintained both a departmental and overall "Class 1" rating by the Insurance Services Office. Only five cities in the country have received this top overall rating. In order to maintain this ISO ranking while providing coverage for the new businesses and structures constructed under the Proposed Project, the Fire Department may require additional staff and/or equipment. *Mitigation measures which would reduce these potential service impacts to a less-than-significant level will be addressed in the EIR.*

a.(2) The City of Stockton Police Department provides law enforcement and police protection services for the Westin Ranch area. Introduction of new businesses to the proposed Weston Ranch Towne Center would add to the responsibilities of the existing police force. Additional security for both commercial and parking areas may be required. *Mitigation measures which would reduce these potential service impacts to a less-than-significant level will be addressed in the EIR.*

a.(3) The Proposed Project will not include housing and thus will not generate additional students. *No impact is anticipated.*

a.(4) The Proposed Project will not result in substantial increase in demand on park facilities since it is intended to serve existing communities in the area. *No impact is anticipated.*

a.(5) Other public facilities including public roads, Emergency Medical Services, and electrical distribution lines are likely to be adversely effected. Road construction and increased traffic (both construction related and long-term) would result under the Proposed Project. Increasing numbers of people, during both construction and operation, are anticipated to generate additional demand for EMS. Several sets of electrical lines that currently cross the project site and deliver power to various residences and buildings will need to be removed or relocated. *Mitigation measures which would reduce these potential service impacts to a less-than-significant level will be addressed in the EIR.*

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
14. RECREATION – Would the project:				
a. 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?				X
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				X

Supporting Documentation/References Cited: City of Stockton, Department of Parks and Recreation, accessed online at: http://www.stocktongov.com/parks/parks/parkdiv.htm on July, 11, 2003.

a. The closest public park to the Proposed Project Area is Long Park, a five acre general use park located approximately 1/2 mile from the intersection of French Camp Road and McDougald Boulevard. Other nearby recreational facilities include Weston Park and Van Buskirk Park. Both of these facilities are large, and feature additional improvements including barbeque grills and tennis courts. The Proposed Project would not likely generate an increase in parks usage. *No impact is anticipated.*

b. See a. above.

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
15. <u>TRANSPORTATION / TRAFFIC</u> – Would the project:				
a. Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	X			
b. Cause, either individually or cumulatively, exceedance of a level-of-service standard established by the county congestion management agency for designated roads or highways?	X			
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?				X
d. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e. Result in inadequate emergency access?			X	
f. Result in inadequate parking capacity?			X	
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?		X		

Supporting Documentation/References Cited: City of Stockton Community Development Department, Planning Division. City of Stockton General Plan, Background Report, Adopted January 22, 1990.
City of Stockton Department of Parks and Recreation, Existing and Future Bike Plan Map, accessed online at: http://www.stocktongov.com/parks/otherfacilities/bikeandjogging.htm on July 14, 2003.
Kim Kloeb, Senior Regional Planner San Joaquin Council of Governments, personal communication July 16, 2003.

a. Construction and operation of the Weston Ranch Towne Center will increase the number of daily vehicle trips to and from the Proposed Project site. This increase in traffic is expected to be substantial over existing traffic loads. Widening and other improvements along French Camp Road, realignment of Manthey Road, elimination of Henry Long Boulevard in the project site, and a new north-south road along the west edge of the project site are planned under the Proposed Project. In addition, as a result of other uses not associated with the Proposed Project, the I-5 on/off ramp configuration at French Camp Road may be altered. *Potential traffic impacts and mitigation measures will be addressed in the EIR, although it is unclear at this time whether project related impacts will be mitigated to less-than-significant levels.*

b. See a. above.

c. The Weston Ranch Towne Center site is located approximately two miles west of the Stockton Metropolitan Airport. The site is not located within the Airport Land Use Commission's planning boundary, but is located within the airport's Conical Zone. There are no special construction standards for this zone, and the Proposed Project does not include the construction of any structures tall enough to interfere with air traffic. *No impact is anticipated.*

d. The Proposed Project would include the development of new roadways and improvement of existing roadways. Development of the project site will conform with City standards and is not expected to include any design features (sharp curves or dangerous intersections) that would result in hazardous traffic conditions over the local or regional roadway system. *No impact is expected.*

e. As part of the Proposed Project, the development will be required to coordinate with local law enforcement officials and the City Fire Department, in order to design adequate emergency access. *As a result, a less-than-significant impact is expected.*

f. The Proposed Project includes parking facilities designed to serve the customers and employees of the Weston Ranch Towne Center commercial development. The final parking supply will be dependent upon the size and location of commercial structures. *Parking supply and demand is a less-than-significant impact and will be addressed in the EIR.*

g. The Stockton General Plan Circulation Element enumerates several policies aimed at encouraging non-motorized transportation. The City Parks and Recreation Department has prepared an Existing and Future Bikeway Plan which identifies three bike paths planned in the vicinity of the Proposed Project Area. These planned paths run along French Camp Road, Henry Long Boulevard, and Manthey Road and have the potential to be effected by the Proposed Project as traffic volumes in the area are expected to increase. In addition, Henry Long Boulevard will not continue through the project site. Mitigation for the impacts to these planned bike paths may include relocation and/or the offsetting of paths from major roadways. *Mitigation measures which would reduce these potential transportation impacts to a less-than-significant level will be addressed in the EIR.*

	Potentially Significant Impact		Less-than-Significant with Mitigation Incorporated		Less-than-Significant Impact		No Impact
16. UTILITIES AND SERVICE SYSTEMS – Would the project:							
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB)?			X				
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?			X				
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X				
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?			X				
e. Result in a determination by the wastewater treatment provider that 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?					X		
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X				
g. Comply with federal, state, and local statutes and regulations related to solid waste?			X				

Supporting Documentation/References Cited: City of Stockton, Municipal Utilities Department, Sanitary Block Book, August 2001.
City of Stockton, Municipal Utilities Department, Water Block Book, August 2001.
City of Stockton, Municipal Utilities Department, Storm Block Book, August 2001.
City of Stockton MUD page water: http://www.stocktongov.com/MUD/pages/water.htm

The Project proposes the commercial development of what is currently agricultural land. The project site would receive water, sanitary sewer, and drainage services from the City of Stockton's Municipal Utilities and Public Works Department. The Project would increase demands on existing utility resources, especially on the sanitary sewer and water delivery systems. Extensions of public services would be performed consistent with the land use and public facilities policies and regulations contained in the City of Stockton General Plan and Zoning Ordinance.

a. The City of Stockton Municipal Utilities Department (MUD) is responsible for the City's sanitary sewer and water delivery systems. Existing sewer facilities in the vicinity of the Proposed Project site are a 10 inch and a 15 inch pipeline located along William Moss Boulevard. The current pipeline is designed to handle residential wastewater flows, and may not accommodate additional commercial use. The Proposed Project would require extension of a 12 inch pipeline from the intersection of French Camp Road and Manthey Road to coincide with the western boundary of the Project Area. In addition, the Proposed Project would require the extension of a 16 inch pipeline from the intersection of Henry Long Boulevard and Manthey Road to coincide with the western boundary of the Project Area. To comply with RWQCB wastewater treatment requirements, wastewater collection facilities be extended to the Weston Ranch Towne Center site, and existing facilities may need to be enlarged and/or improved.

Water distribution systems in the vicinity of the project site include a 30 inch pipeline along French Camp Road, an 18 inch pipeline along Manthey Road, and a 16 inch pipeline along William Moss Boulevard. The 30 inch water pipeline in French Camp Road can not be tapped for service, but a 12 inch water pipeline located at the intersection of French Camp Road and EWS Woods Boulevard will be extended along French Camp Road and connected to the 18 inch water pipeline on Manthey Road to serve the project site. Construction and operation of the Proposed Project will generate increased demand for water, and additional water lines will be connected on site. A water supply assessment, consistent with SB 610, will be required for the project.

The plans for these water and sewer improvements will need to be submitted to and approved by the City, and the appropriate encroachment fees paid. *Mitigation measures which would reduce these potential utility impacts to a less-than-significant level will be addressed in the EIR.*

b. The Proposed Project would require the extension of sanitary sewer infrastructure on Henry Long Boulevard in accordance with adopted master plans.

c. Existing storm drain facilities serving the Proposed Project Area include a 36 inch drainage line along William Moss Boulevard and an 18–24 inch line along French Camp Road which was designed to serve French Camp Road and the I-5 Interchange. Storm Drain service in the area is provided by the Stockton MUD. Storm drainage for the project site will require extension of storm drainage infrastructure on Henry Long Boulevard and will be served by a 54 inch and a 60 inch pipeline in Henry Long Boulevard. The Proposed Project will require revision of existing storm drainage master plans to incorporate proposed land use changes. Construction of the Weston Ranch Town Center is expected to add large areas of impervious surface to the Project Area. Pavement and structures will both contribute to an increased volume of runoff from the project site. In order to accommodate this increase, new storm drain lines may be connected to the site, and existing facilities may need to be enlarged. Watershed drainage plans shall include a detailed analysis to verify that the storm water pump station and existing infrastructure can accommodate the increased volume of runoff from the Project Area. If the pump station and/or associated storm drainage pipelines cannot accommodate the project runoff, infrastructure shall be expanded in accordance with the Stockton Municipal Code. This project requires compliance with the City of Stockton's Storm Water Quality Control Criteria Plan, as approved and adopted by the Stockton City Council on November 25, 2003. Existing standards and regulations as well as *Mitigation measures which would reduce these potential drainage impacts to a less-than-significant level will be addressed in the EIR.*

d. Water for the Stockton area comes from a combination of groundwater and surface water sources. At the present moment, the South Stockton Water Service area does not receive surface water from the Stockton East Water District. As a condition of approval for the Project, the City needs to certify that they have adequate water to supply the development's needs. Pursuant to SB 610, the local water purveyor will be requested to assess the available water supply for the Proposed Project. Mitigation measures reducing the water supply demands of the Weston Ranch Towne Center will be included in the EIR. *This is anticipated to be a less-than-significant impact.*

e. See a. above.

f. Solid waste would be collected and removed by the Stockton Waste Management Division. The proposed Weston Ranch Towne Center would add to the quantities of waste currently generated in the Project Area, and to the quantities of waste being disposed in landfills. *Additional information regarding solid waste disposal and mitigation measures will be addressed in the EIR.*

g. See f. above.

	Potentially Significant Impact		Less-than-Significant with Mitigation Incorporated		Less-than-Significant Impact		No Impact
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?			X				
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.)	X						
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?			X				

a. The project would have the potential to degrade the quality of the environment, through a possible contribution to urban decay, increased ambient noise levels, potential growth inducement, and increased traffic congestion.

b. Impacts that would be cumulatively considerable when combined with other development in the region will be analyzed in Chapter 6.0, Other Statutory Considerations, of the EIR.

c. The proposed commercial development could result is less direct impacts on public services, utilities and service systems, and recreation than could occur as a result of residential development. There could be indirect impacts due to potential growth inducement. Potential service-oriented impacts will be evaluated in the EIR, and appropriate mitigation will be provided. Also see item a., above.

D. EARLIER ANALYSIS (*Completed by Lead Agency or Authorized Consultant):*

Earlier analyses may be used where, pursuant to the tiering, Program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or Initial Study/Negative Declaration [Section 15063(c)(3)(D) of the State CEQA Guidelines]. The previously-certified or adopted environmental document(s) and any applicable adopted mitigation measures, CEQA "Findings," statements of overriding consideration, and mitigation monitoring/reporting programs are incorporated by reference, as cited below, and discussed on attached sheet(s) to identify the following:

(a) Earlier Analysis Used - Identify and state where earlier analyses are available for review.

(b) Impacts Adequately Addressed - Identify which effects from the above Checklist (Section C) were within the scope of, and adequately analyzed in, an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.

(c) Mitigation Measures - For effects that are "Less-than-Significant with Mitigation Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

(d) CEQA Findings, Statements of Overriding Consideration, and Mitigation Monitoring/Reporting Programs -- Identify any applicable previously adopted CEQA Findings, overriding considerations, and mitigation monitoring/reporting provisions that have been relied upon and incorporated into the Proposed Project, pursuant to Sections 15150 (Incorporation by Reference) and 15152(f)(3) (Tiering) of the State CEQA Guidelines.

ENVIRONMENTAL ISSUE:	REFERENCES TO EARLIER ANALYSES, IMPACTS ADEQUATELY ADDRESSED, AND INCORPORATED MITIGATION AND FINDINGS:
1. AESTHETICS	
2. AGRICULTURAL RESOURCES	Statement of Overriding Considerations, Weston Ranch Annexation, EIR File No. 2-86
3. AIR QUALITY	
4. BIOLOGICAL RESOURCES	
5. CULTURAL RESOURCES	
6. GEOLOGY AND SOILS	
7. HAZARDS AND HAZARDOUS MATERIALS	
8. HYDROLOGY AND WATER QUALITY	
9. LAND USE AND PLANNING	
10. MINERAL RESOURCES	
11. NOISE	
12. POPULATION AND HOUSING	
13. PUBLIC SERVICES	
14. RECREATION	
15. TRANSPORTATION/TRAFFIC	
16. UTILITIES AND SERVICE SYSTEMS	
17. MANDATORY FINDINGS OF SIGNIFICANCE	

E. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED [*Completed by Lead Agency or Authorized Consultant* - -Check (4), as applicable]:

The environmental factors checked below would potentially be affected by this project (i.e., the project would involve at least one impact that is a "Potentially Significant Impact"), as indicated in the preceding Checklist (Section C) and the Earlier Analysis (Section D):

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

F. OTHER REFERENCES AND PERSONS CONSULTED (*Completed by Lead Agency or Authorized Consultant):*

Authority: Public Resources Code Sections 21083 and 21087.
Reference: Public Resources Code Sections 21080(c), 21080.1, 21080.3, 21082.1, 21083, 21083.3, 21093, 21094, 21151; *Sundstrom v. County of Mendocino*, 202 Cal. App. 3d 296 (1988); *Leonoff v. Board of Supervisors*, 222 Cal. App. 3d 1337(1990).

G. DETERMINATION [*Completed by Lead Agency* - -Check (4), as applicable]:

On the basis of this initial evaluation and on substantial evidence in light of the whole record before the Lead Agency:

[ ] 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, however, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent (see attached Mitigation Agreement). A MITIGATED NEGATIVE DECLARATION or an ADDENDUM to a MITIGATED NEGATIVE DECLARATION will be prepared.

[X] I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR), SUBSEQUENT EIR, SUPPLEMENT to an EIR, or an ADDENDUM to an EIR is required.

[ ] I find that the Proposed Project MAY have an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" 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. An 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 ENVIRONMENTAL IMPACT REPORT or MITIGATED NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or MITIGATED NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required. Specifically, the environmental documentation for the Proposed Project is provided by the following document(s):

(3) Other Environmental Document(s): _____

(Pursuant to the State and City Guidelines for Implementation of CEQA, the determination of the Community Development Director may be appealed to the City Planning Commission by submitting a written appeal with the applicable fee to the Community Development Department within ten (10) calendar days following this date of the determination.)

James E. Glaser, DIRECTOR
COMMUNITY DEVELOPMENT DEPARTMENT

By: _____
(Signature of Planner)

Date: November 15, 2005
(Date of Determination)

Mark Martin, Project Manager II
(Name and Title of Planner – Typed or Printed)

ATTACHMENT 1

EXHIBIT "A"

EXHIBIT "A"

THE FOLLOWING METES AND BOUNDS DESCRIPTION IS A DESCRIPTION OF PROPOSED PARCEL MAP BOUNDARY AND IS LIKELY TO CHANGE.

PARCEL A

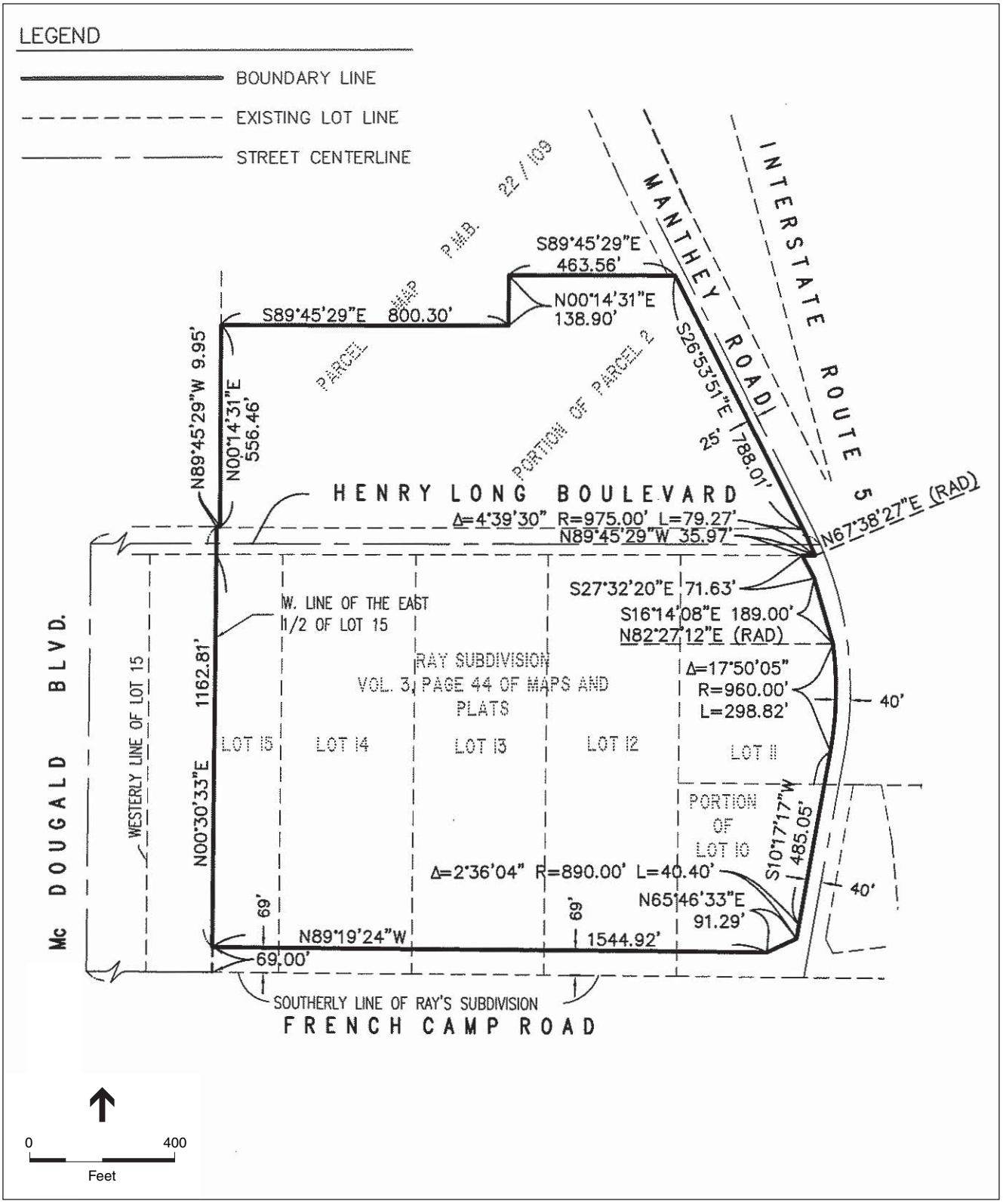
IN THE CITY OF STOCKTON, COUNTY OF SAN JOAQUIN, STATE OF CALIFORNIA, BEING THAT PORTION OF PARCEL 2 AND PORTIONS OF MANTHEY ROAD AND HENRY LONG BOULEVARD AS SHOWN ON MAP FILED IN BOOK 22, PAGE 109 OF PARCEL MAPS, TOGETHER WITH THOSE PORTIONS OF LOTS 10, 12, 13, 14 AND 15, OF RAY'S SUBDIVISION, ACCORDING TO THE OFFICIAL MAP THEREOF, FILED IN VOLUME 3 OF MAPS, PAGE 44, ALL RECORDS OF SAID COUNTY, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE WEST LINE OF THE EAST HALF OF SAID LOT 15, SAID POINT BEING 69.00 FEET NORTHERLY FROM THE SOUTHWEST CORNER OF SAID EAST HALF; THENCE ALONG SAID WEST LINE AND ITS NORTHERLY PROLONGATION, NORTH 00°30'33" EAST, 1162.81 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF HENRY LONG BOULEVARD, 74.00 FEET WIDE, AS SHOWN ON SAID PARCEL MAP; THENCE ALONG SAID NORTHERLY LINE SOUTH 89°45'29" EAST, 9.95 FEET TO THE WEST LINE OF SAID PARCEL 2; THENCE ALONG SAID WEST LINE NORTH 00°14'31" EAST, 556.46 FEET; THENCE LEAVING SAID WEST LINE, SOUTH 89°45'29" EAST, 800.30 FEET; THENCE NORTH 00°14'31" EAST, 138.90 FEET; THENCE SOUTH 89°45'29" EAST, 463.56 FEET TO A LINE PARALLEL WITH AND 25.00 FEET SOUTHWESTERLY FROM THE CENTERLINE OF MANTHEY ROAD, VARIABLE WIDTH, AS SHOWN ON SAID PARCEL MAP; THENCE ALONG SAID PARALLEL LINE SOUTH 26°59'31" EAST, 788.27 FEET TO THE BEGINNING OF A CURVE, CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 975.00 FEET; THENCE SOUTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 04°39'30", AN ARC LENGTH OF 79.27 FEET TO A POINT ON THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID HENRY LONG BOULEVARD; THENCE ALONG SAID PROLONGATION AND SAID SOUTHERLY LINE, NORTH 89°45'29" WEST, 35.97 FEET TO THE WESTERLY RIGHT OF WAY OF SAID MANTHEY ROAD AS CONVEYED TO THE STATE OF CALIFORNIA IN THE DEED RECORDED JUNE 20, 1968 IN BOOK 3218, PAGE 180, OFFICIAL RECORDS OF SAID COUNTY; THENCE ALONG SAID RIGHT OF WAY SOUTH 27°32'20" EAST 71.63 FEET; THENCE SOUTH 16°14'08" EAST 189.00 FEET TO THE BEGINNING OF A NON-TANGENT CURVE, CONCAVE WESTERLY, HAVING A RADIUS OF 960.00 FEET, A RADIAL TO SAID BEGINNING BEARS NORTH 82°27'12" EAST; THENCE ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 17°50'05", A ARC LENGTH OF 298.82 FEET; THENCE SOUTH 10°17'17" WEST, 485.05 FEET TO THE BEGINNING OF A CURVE, CONCAVE EASTERLY, HAVING A RADIUS OF 890.00 FEET, THENCE SOUTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 02°36'04" AN ARC LENGTH OF 40.41 FEET; THENCE LEAVING SAID RIGHT OF WAY LINE SOUTH 65°46'33" WEST, 91.29 FEET TO A LINE PARALLEL WITH AND DISTANT 69.00 FEET NORTHERLY FROM THE SOUTHERLY LINE OF SAID RAY'S SUBDIVISION; THENCE ALONG SAID PARALLEL LINE NORTH 89°19'24" WEST, 1544.92 FEET TO THE POINT OF BEGINNING

THE ABOVE DESCRIBED PARCEL CONTAINS 65.67 ACRES, MORE OR LESS.

ALL AS MORE PARTICULARLY SHOWN ON EXHIBIT "B", ATTACHED HERETO AND MADE A PART HEREOF.

EXHIBIT "B" –
FIGURE OF PARCEL “A”



SOURCE: Development Resource Consultants; and ESA, 2005

Weston Ranch Towne Center Revised NOP . 204152

Exhibit B

Parcel "A"

Appendix B

Notice of Preparation Comment Letters

ESA

MEMORANDUM

August 23, 2004

TO: James E. Glaser, Community Development Director
Attention: David Stagnaro, Senior Planner

FROM: Gregg S. Meissner, Development Services Manager

SUBJECT: **COMMENTS ON THE ADMINISTRATIVE DRAFT INITIAL STUDY/NOTICE OF PREPARATION FOR THE WESTON RANCH TOWNE CENTER PROJECT (EIR5-04)**

Public Works staff reviewed the subject Administrative Draft Initial Study/Notice of Preparation and based on their review, staff offers the following comments:

1. Page 4 of the Notice of Preparation; check and review that parcel APN 16819008 is included in the project boundary. The site location of the project is stated as being in Township 1N, Range 6E, but this area should be referred to as portions of Sections 12 and D of the CM Weber Land Grant.

2. Page 7, Figure 4, Proposed Project Preliminary Site Plan needs the following significant concerns addressed:
   a) Text height needs to be increased;
   b) The vicinity map should be rotated to match the site drawing or have a north arrow added;
   c) The vacant land to the north of the project site, 37.34 acres, needs to show the existing building and property line(s) on the northern portion of the parcel.
   d) The figure states the site area as 54.95 acres, but all other references to the site area in the NOP and IS is 59.7 acres.
   e) The scale bar does not match the drawing scale
   f) The proposed signalized access at Manthey Road and French Camp Road will not be acceptable due to its close proximity to Interstate 5 ramps. Project access located nearest to Interstate 5 is subject to Caltrans approval.
   g) Henry Long Boulevard is proposed to be abandoned on the west side of the project in correlation with adjacent development occurring to the west of the project site.
   h) Multiple proposed project accesses, including 3 signalized intersections and 3 partial access driveways, will need to be analyzed for operational impacts on French Camp Road.

3. Page 8 & 9, Proposed Access and Circulation, the potential operational impacts of having three signalized intersections and three partial project access driveways within an approximate 1500' distance will need to be analyzed for French Camp

Road. Project access located nearest to Interstate 5 is subject to Caltrans approval. The planned new interchange at French Camp Road and Interstate 5 shall be considered for any proposed access on French Camp Road.

4. Page 8, first paragraph (sub-bullets) Alteration of Henry Long Boulevard. Henry Long Boulevard is proposed to be abandoned on the west side of the project in correlation with adjacent development occurring to the west of the project site.

5. Page 8, second paragraph, sub-bullets, project installation of bike "lanes" should be revised to bikeways. New City design standards call for an 8' wide, off-street meandering sidewalk/bikeway, as opposed to on-street bike lanes for arterial streets.

6. Page 9, top of page, second sentence. "The proposed road will be designated as private internal service roads". This sentence does not make any sense as worded. Clarify if referring to the proposed new road along the western edge of the project site and state the designation of the road in a singular tense.

7. Page 22, Transportation/Traffic, the EIR will need to analyze the potential operational impacts of the proposed project access on French Camp Road and the future planned interchange and ramps at Interstate 5. Impact analysis should evaluate the necessity for eight access points, as proposed, to serve the project site. Analysis shall analyze impacts of project traffic on the existing French Camp Interchange ramp operations in the interim without the planned new interchange.

8. Page 28 of the Initial Study, Section16, Utilities and Service Systems, part A; the sanitary sewer for the project site will be served by a 10 inch and 15 inch pipeline located in Henry Long Boulevard.

9. Page 28 of the Initial Study, Section16, Utilities and Service Systems, part A; change the size of the existing water pipeline in William Moss Boulevard to 16 inches. Include information stating that the 30 inch water line in French Camp Road can not be tapped for service, but a 12 inch water line at the intersection of French Camp Road and EWS Woods Boulevard will be extended along French Camp Road and connected to the 18 inch water line on Manthey Road to serve the project site.

10. Page 28 of the Initial Study, Section16 Utilities and Service Systems, part C; the Storm drainage for the project site is to be served from a 54 inch and a 60 inch pipe in Henry Long Boulevard. Also, the 18 to 24 inch storm drain line in French Camp Road was designed to serve French Camp Road and the I-5 Interchange.

11. Attachment 1 needs to be added to the index.

12. Exhibit B of Attachment 1 has hatching through many of the bearing and distances that makes the labels illegible. The Scale of 1" = 300' is incorrect, please correct.

Thank you for allowing us to comment on this application. If you have any questions, please contact me at 937-8270.

JAMES B. GIOTTONINI
PUBLIC WORKS DIRECTOR

GREGG S. MEISSNER
DEVELOPMENT SERVICES MANAGER

c: Reed Hogan, Senior Civil Engineer
P.W. Files

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MEMORANDUM

RECEIVED
AUG 2 2004
CITY OF STOCKTON
PERMIT CENTER/PLANNING DIVISION

August 18, 2004

TO: David Stagnaro, Senior Planner

FROM: Antonio S. Tovar, Associate Civil Engineer

SUBJECT: STAFF REVIEW OF THE ADMINISTRATIVE DRAFT/INITIAL STUDY/NOTICE OF PREPARATION FOR THE WESTON RANCH TOWNE CENTER PROJECT EIR5-04

We have reviewed the subject matter per your request. In summary, this is acceptable, subject to the following comment:

1. Environmental Checklist and Initial Study/Environmental Significance Checklist/Item #8b, Hydrology and Water Quality:
   - First paragraph, first sentence: Delete "has exceeded the safe yield of about 13,300 acre-feet for the northern portion of the basin and".
   - First paragraph, second sentence: Revise "Although overdrafting has caused a deterioration ..." to "Although there has been a deterioration ...."

2. Environmental Checklist and Initial Study/Environmental Significance Checklist/Item #16a, Utilities and Service Systems: Project would require extension of a 12-inch pipeline from the intersection of French Camp Road and Manthey Road to coincide with the western boundary of the project area. In addition, project would require the extension of a 16-inch from the intersection of Henry Long Blvd and Manthey Road to coincide with the western boundary of the project area.

3. Environmental Checklist and Initial Study/Environmental Significance Checklist/Item #16b, Utilities and Service Systems: Project will require extension of sanitary sewer infrastructure on Henry Long Blvd. in accordance with adopted master plans

4. Environmental Checklist and Initial Study/Environmental Significance Checklist/Item #16c, Utilities and Service Systems:

   - Project will require revision of existing storm drainage master plans to incorporate proposed land use changes.
   - Watershed drainage plans shall also include a detailed analysis to verify that the storm pump station and existing infrastructure can accommodate the increased volume of runoff from the project area. If the pump station and/or associated storm drainage pipelines cannot accommodate the project runoff, infrastructure shall be expanded per the Stockton Municipal Code.
   - Project will require extension of storm drainage infrastructure on Henry Long

STAFF REVIEW OF THE ADMINISTRATIVE DRAFT/INITIAL STUDY/NOTICE OF PREPARATION FOR THE WESTON RANCH TOWNE CENTER PROJECT (EIR5-04)

Blvd.

5. Environmental Checklist and Initial Study/Environmental Significance Checklist/Item #16c, Utilities and Service Systems: This project requires compliance with the City's Storm Water Quality Control Criteria Plan, approved and adopted by City Council on November 25, 2003.

6. Environmental Checklist and Initial Study/Environmental Significance Checklist/Item #16d, Utilities and Service Systems: At the present moment, South Stockton Water Service area does not receive surface water from the Stockton East Water District.

Please incorporate the above comment. If you have any questions, please call me at x-8790.

ANTONIO S. TOVAR
ASSOCIATE CIVIL ENGINEER

AST:at

MEMORANDUM

January 25, 2005

TO: David Stagnaro, Senior Planner

FROM: Antonio S. Tovar, Associate Civil Engineer

SUBJECT: PUBLIC REVIEW OF THE NOTICE OF PREPARATION/INITIAL STUDY FOR THE WESTON RANCH TOWNE CENTER PROJECT (EIR5-04)

We have reviewed the subject matter per your request. In summary, this is acceptable, subject to the following comments:

1. Section 16a Utilities and Service Systems/Water. Correct the following:
   A 12-inch waterline shall be extended from the intersection of French Camp Road and Manthey Road (as opposed to EWS Woods Boulevard) west along French Camp Road to coincide with the western boundary of the project area.

2. Section 16a Utilities and Service Systems/Water. Add the following:
   A 16-inch waterline shall be extended from the intersection of Henry Long Boulevard and Manthey Road to coincide with the western boundary of the project area.

3. Section 16a Utilities and Service Systems/Wastewater. Correct the following:
   There is no sanitary sewer infrastructure at the intersection of French Camp and Manthey Road, or the intersection of Henry Long Boulevard and Manthey Road.

4. Section 16a Utilities and Service Systems/Wastewater. Add the following: In accordance with approved master plans, a 15-inch sanitary sewer will need to be extended from the intersection of McDougal Blvd. and Henry Long Blvd east to coincide with the eastern boundary of the project site.

5. Section 16d Utilities and Service Systems. Add the following:
   The ODS must establish a maintenance entity acceptable to the City to provide funding for the operation, maintenance, and replacement costs of storm water best management practices.

Please incorporate the above comments. If you have any questions, please call me at x-8790.

Antonio S. Tovar

ANTONIO S. TOVAR
ASSOCIATE CIVIL ENGINEER

AST:at

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California Integrated Waste Management Board

Rosario Marin, Chair
1001 I Street • Sacramento, California 95814 • (916) 341-6000
Mailing Address: P. O. Box 4025, Sacramento, CA 95812-4025
www.ciwmb.ca.gov

Alan C. Lloyd, Ph.D.
Secretary for Environmental Protection

Arnold Schwarzenegger
Governor

February 9, 2005

Mr. David Stagnaro
City of Stockton
Community Development Department
345 N. El Dorado Street
Stockton, CA 95202

SUBJECT: Notice of Preparation (NOP) for the Weston Ranch Towne Center draft Environmental Impact Report (EIR), SCH# 2005012056.

Dear Mr. Stagnaro:

California Integrated Waste Management Board (CIWMB) staff has reviewed the above referenced document and has the following comments.

Hazards And Hazardous Materials (7) (a) (d), page 16-17:

The CIWMB's Solid Waste Information System (SWIS) database records indicate that the United States Environmental Protection Agency (USEPA) completed a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Site Inspection Report for the site (SWIS No. 39-CR-0038) containing asbestos adjacent to the proposed project dated 8/12/93 (Site EPA No. CAD982359127). A CERCLA Section 106 order was issued to the property owner to cap the waste in place. The cap included six inches of cover placed in 1990 and three feet of cover placed in 1991.

Currently, CIWMB staff performs inspections of the site annually to assure it meets State Minimum Standards for closed disposal sites pursuant to the California Code of Regulations, Title 27 (27 CCR).

Pages 16-17 of the NOP indicate that the disposal site is adjacent to the proposed project and may require removal, transport, and disposal of the material at an approved landfill.

Pursuant to 27 CCR, Section 21190 - All proposed postclosure land use of the site must be submitted to the Enforcement Agency (EA) section of CIWMB for review and approval, including any future excavation of this former disposal site. In part, this would include structures within 1000 feet of the disposal area, structures on top of it, or any modification of the site.

Thank you for the opportunity to comment on the above referenced project. If you have any questions, please contact me at (916) 314-6718.

Sincerely,

Randy Friedlander

Randy Friedlander
Facilities Operations Branch
Permitting and Enforcement Division

MEMORANDUM

January 19, 2005

TO: James E. Glaser, Director, Community Development Department

ATTN: David Stagnaro, Senior Planner

FROM: Mark W. Herder, Chief of Police

SUBJECT: **PUBLIC REVIEW OF THE NOTICE OF PREPARATION/INITIAL STUDY FOR THE WESTON RANCH TOWNE CENTER PROJECT (EIR5-04)**

The Police Department has reviewed the above-referenced document concerning the proposed development of large retail stores, in-line shops, retail pad stores, restaurants, fuel centers, and parking on 59.7 acres located at the southern boundary of the City of Stockton immediately north of French Camp Road, west of Manthey Road and Interstate 5, and east of McDougal Boulevard. The Police Department has no adverse comments concerning this project.

Wayne Ham for

MARK W. HERDER
CHIEF OF POLICE

MWH/BM/pkh

SAN JOAQUIN RTD

1533 East Lindsay Street | Stockton, California | 95205
209.948.5566 | 209.948.8516 [fax] | sanjoaquinRTD.com

BOARD OF DIRECTORS D David Smith Duane Isetti James S Barbour Floyd H Weaver Anthony H Stevens
GENERAL MANAGER CEO Donna Kelsay

February 14, 2005

Mr. David Stagnaro, AICP, Senior Planner
City of Stockton
Community Development Department
Planning Division
345 North El Dorado Street
Stockton, CA 95202-1997

Dear Mr. Stagnaro:

The San Joaquin Regional Transit District (RTD) appreciates the opportunity to review and comment on the Notice of Preparation/Initial Study for the Weston Ranch Towne Center Project. RTD staff has completed its initial review of the document and offers the following suggestions for consideration, which includes:

1. Providing pedestrian circulation throughout the proposed development to facilitate direct and continuous access to and from other buildings in the project area.

2. Ensuring that sidewalks are provided throughout the development to assure that pedestrians can easily access nearby businesses and services.

3. Ensuring that pedestrian circulations provide connections to transit service offered in the vicinity to afford transit riders the opportunity to use transit service provided in the neighborhood.

4. Incorporating a bus turnout on Manthey Road into the final design to enable RTD buses board and deboard passengers away from the traffic lane. RTD staff will work with the City and the project developers on the location for the bus turnout.

5. Ensuring that the proposed building is not set back too far away from the main entrance to extend the walking distance for pedestrians and persons with disabilities. This orients the building towards the pedestrian network and lessens the walking distance for pedestrians and future customers of the proposed commercial development.

RTD currently provides fixed route and paratransit services to residential neighborhoods in close proximity to the proposed commercial development. Weekday service is offered on Route 90 along Manthey Road for residents traveling to and from downtown Stockton, as well as traveling to and from Delta College. Weekend service is also provided on Routes 30 and 90 on Manthey Road.

In addition to Routes 30 and 90, RTD offers express service on Route 14 along William Moss Boulevard on weekdays. Dial-A-Ride (DAR) service is currently provided to and from residences located along corridors in the proposed project area for medical appointments and other activities.

Given the magnitude of the proposed development, we recommend that RTD be contacted to remove bus stop signage impacted by the project prior to the beginning of construction. This will ensure that temporary bus stops are located at alternative sites for the convenience of our passengers.

These suggestions are offered for consideration to help encourage future customers of the proposed commercial development use transit services provided in the vicinity. Additionally, the provision of these transit elements will foster an environment where alternate transportation modes are encouraged. Please feel free to contact me at 209-948-5566, ext. 696 if I can be of further assistance to you.

Sincerely,

Elovi

Eunice Lovi,
Planning Manager

cc: Donna Kelsay, General Manager/CEO
Gloria Salazar, Assistant General Manager/CFO

San Joaquin Valley
Air Pollution Control District

February 10, 2005

David Stagnaro
City of Stockton
Community Development Department
345 North El Dorado Street
Stockton, Ca 95202

Subject: NOTICE OF PREPARATION – DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE WESTON RANCH TOWNE CENTER PROJECT.

Dear Mr. Stagnaro:

The entire San Joaquin Valley Air Basin is designated non-attainment for ozone and fine particulate matter (PM10). This project could contribute to the overall decline in air quality due to increased traffic and ongoing operational emissions. This project is likely to generate significant air pollutant emissions that could reduce the air quality in the San Joaquin Valley. The project may make it more difficult to meet mandated emission reductions and air quality standards. A concerted effort should be made to reduce project-related emissions as outlined below:

The District recommends that the air quality section of the EIR have four main components:

1. **It should provide a description of the regulatory environment and existing air quality conditions impacting the area**. The District has several sources of information available to assist with the existing air quality and regulatory environment section of the EIR. The District's *Guide for Assessing and Mitigating Air Quality Impacts, 2002 Revision* (GAMAQI) contains discussions regarding the existing air quality conditions and trends of the San Joaquin Valley Air Basin, including those pollutants of particular concern: ozone, PM10, and carbon monoxide. In addition, it provides an overview of the regulatory environment governing air quality at the federal, state, and regional levels. The GAMAQI provides air monitoring data and other relevant information for PM-10 and other pollutants. The most recent air quality data for the District is Available at the California Air Resources Board (ARB) website at-
http://www.arb.ca.gov/html/aqe&m.htm.
The air quality section of EPA's Region 9 (which includes information on the San Joaquin Valley Air Basin) can be found at http://www.epa.gov/region09/air/index.html.

2. **It should provide estimates of existing emissions and projected pollutant emissions related to the increase in project source emissions and vehicle use, along with an analysis of the effects of these increases.** The EIR should include the methodology, model assumptions, inputs and results for pollutant emissions. The cumulative impact analyses should consider current existing and planned development both within the project area and in surrounding areas. The EIR needs to address the short-term and long term local and regional adverse air quality impacts associated with the operation of construction equipment (reactive organic gases, nitrogen oxides, carbon monoxide, and PM10) and emission generated from stationary and mobile sources.

David L. Crow
Executive Director/Air Pollution Control Officer

Northern Region Office
4230 Kiernan Avenue, Suite 130
Modesto, CA 95356-9322
(209) 557-6400 • FAX (209) 557-6475

Central Region Office
1990 East Gettysburg Avenue
Fresno, CA 93726-0244
(559) 230-6000 • FAX (559) 230-6061
www.valleyair.org

Southern Region Office
2700 M Street, Suite 275
Bakersfield, CA 93301-2373
(661) 326-6900 • FAX (661) 326-6985

The District recommends using the URBEMIS 2002 program to calculate project area and operational emissions and to identify mitigation measures that reduce impacts. URBEMIS can be downloaded from the South Coast Air Quality Management District's website at: http://www.aqmd.gov/ceqa/urbemis.html. If the analysis reveals that the emissions generated by this project will exceed the District's thresholds, this project may significantly impact the ambient air quality if not sufficiently mitigated. The project applicant or consultant is encouraged to consult with District staff for assistance in determining appropriate methodology and model inputs.

There should be a discussion of the toxic risk associated with diesel-fueled engines and vehicles. The ARB has designated diesel particulate emissions as a toxic air contaminant. The proposed project should be analyzed to see if it is considered near a location of sensitive receptors and if diesel toxicity is a potential source of concern. On page 43 of the GAMAQI, the District addresses and defines sensitive receptors with respect to CEQA. If the project is near sensitive receptors and diesel toxicity is a concern the project developer should perform Hazardous Risk Assessment (HRA). A HRA needs to address the following

- Heavy Duty diesel truck travel
- Heavy duty diesel truck idling
- Truck refrigeration units (TRU)
- IC engines located on the project premises not requiring a District Permit.

The location of sensitive receptors should be explained in terms that demonstrate the relationship between the project site and potential air quality impacts (e.g., proximity, topography, or upwind and downwind location).

3. **It should identify and discuss all existing District regulations that apply to the project.** Based on the information provided, the proposed project will be subject to the following District rules. The following items are rules that have been adopted by the District to reduce emissions throughout the San Joaquin Valley, and are required. Current District rules can be found at http://www.valleyair.org/rules/1ruleslist.htm.

District Rule 2201 (New and Modified Stationary Source Review Rule) This rule applies to all new stationary sources and all modification of existing stationary sources which are subject to the District permit requirements and after construction emit or may emit one or more affected pollutant. The applicant must contact the District's Small Business Assistance Office at (209) 557-6446 to receive additional information/instructions.

District Rule 4002 (National Emission Standards for Hazardous Air Pollutants). Prior to any demolition activity, an asbestos survey of existing structures on the project site may be required to identify the presence of any asbestos containing building material (ACBM). Any identified ACBM having the potential for disturbance must be removed by a certified asbestos-contractor in accordance with CAL-OSHA requirements. If you have any questions concerning asbestos related requirements, please contact Ms Jan Sudomier of this office at (209) 557-6400. An Asbestos Requirements Bulletin has been enclosed for your review.

District Regulation VIII (Fugitive PM10 Prohibitions)- Regulation VIII (Rules 8011-8081) is a series of rules designed to reduce PM10 emissions (predominantly dust/dirt) generated by human activity, including construction, road construction, bulk materials storage, landfill operations, etc. **Please be advised that the Dust Control Plan threshold has changed from 40.0 acres to 5.0 or more acres for non- residential sites. If a non-residential site is 1.0 to less than 5.0 acres, an owner/operator must provide written notification to the District at least 48 hours prior to his/her intent to begin any earthmoving activities (see section 6.4.1).** The attached Compliance Assistnace Bulleting (CAB) highlights many of the requirements contained within Regulation VIII. The CAB is not meant to be all inclusive, but it can be a useful compliance aid in the field and office alike. Question regarding Regulation VIII and Dust Control Plans should be directed to Dillion Collins at (209) 557-6400

District Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). If asphalt paving will be used, then paving operations of this project will be subject to Rule 4641. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt and emulsified asphalt for paving and maintenance operations.

District Rule 4102 (Nuisance) applies to any source operation that emits or may emit air contaminants or other materials. In the event that the project or construction of the project creates a public nuisance, it could be in violation and be subject to District enforcement action.

This project may be subject to additional District Rules not enumerated above. To identify additional rules or regulations that apply to this project, the applicant is strongly encouraged to contact the District's Small Business Assistance Office at (559) 230-5888.

4. **It should identify and discuss all feasible measures that will reduce air quality impacts generated by the project.** Site design, equipment alternatives, construction and operational measures that would reduce emissions should be identified. It should identify which mitigation measures will be included in the project, and how each mitigation measure will be implemented. This section should provide an analysis of existing mass transit/bicycle access to or near the site, and discuss if additional infrastructure will be needed. It should also analyze opportunities to mitigate urban heat island effects. The reduction of air quality impacts from implementation of mitigation measures should be quantified when possible. The EIR should discuss how the project design would encourage alternative transportation (including car pool parking), pedestrian and bicycle access/infrastructure, smart growth design, energy efficient project and building design, reduce urban heat island impacts, and business programs that further reduce air pollution in the valley (such as carpooling).

   Mitigation measures must be included in the EIR that reduce the emissions of reactive organic gases, nitrogen oxides, and PM10 to the fullest extent possible. Site design and building construction measures that would reduce air quality impacts should be included. The Districts *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI) describes these features. The current GAMAQI can be found at : http://www.valleyair.org/transportation/cega_guidance_documents.htm. The Local Government Commission (LGC) website, http://www.lgc.org, contains valuable information and resources on subjects from street design to energy efficiency.

The District encourages innovation in measures to reduce air quality impacts. There are a number of measures that could be incorporated into the design/operation of this project to provide additional reductions of the overall level of emissions. (Note: Some of the measures may already exist as City development standards. Any measure selected should be implemented to the fullest extent possible.) The measures listed below should not be considered all-inclusive and remain options that the project proponent should consider:

- Trees should be carefully selected and located to protect the building(s) from energy consuming environmental conditions, and to shade paved areas. Trees should be selected to shade paved areas that will shade 50% of the area within 15 years. Structural soil should be used under paved areas to improve tree growth.
  For Structural Soil see http://www.hort.cornell.edu/uhi/outreach/csc/
  For Tree Selection see http://www.ufei.org/
  For Urban Forestry see http://www.coolcommunities.org http://wcufre.ucdavis.edu
  http://www.lgc.org/bookstore/energy/downloads/sjv_tree_guidelines.pdf

- If transit service is available to the project site, improvements should be made to encourage its use. If transit service is not currently available, but is planned for the area in the future, easements should be

reserved to provide for future improvements such as bus turnouts, loading areas, route signs and shade structures. Appropriations made to facilitate public or mass transit will help mitigate trips generated by the project.

- As many energy-conserving features as possible should be included the project. Energy conservation measures include both energy conservation through design and operational energy conservation. Examples include (but are not limited to):
  - Increased energy efficiency (above California Title 24 Requirements) See http://www.energy.ca.gov/title24/.
  - Increased wall and ceiling insulation (beyond building code requirements)
  - Energy efficient widows (double pane and/or Low-E)
  - High-albedo (reflecting) roofing material. See http://eetd.lbl.gov/coolroof/
  - Cool Paving. "Heat islands" created by this and similar projects contribute to the reduced air quality in the valley by heating ozone precursors. See http://www.harc.edu/harc/Projects/CoolHouston/ , http://eande.lbl.gov/heatisland/
  - Radiant heat barrier. See http://www.eere.energy.gov/consumerinfo/refbriefs/bc7.html
  - Energy efficient lighting, appliances, heating and cooling systems. See http://www.energystar.gov/
  - Install solar water-heating system(s)
  - Install photovoltaic cells
  - Programmable thermostat(s) for all heating and cooling systems
  - Awnings or other shading mechanism for windows
  - Porch, patio and walkway overhangs
  - Ceiling fans, whole house/fans
  - Orient the unit(s) to maximize passive solar cooling and heating when practicable
  - Utilize passive solar cooling and heating designs. (e.g. natural convection, thermal flywheels) See http://www.eere.energy.gov/RE/solar_passive.html
  - Utilize daylighting (natural lighting) systems such as skylights, light shelves, interior transom windows etc. See http://www.advancedbuildings.org
  - Electrical outlets around the exterior of the unit(s) to encourage use of electric landscape maintenance equipment
  - Bicycle parking facilities for patrons, employees and/or students in a covered secure area.
  - Employee shower and locker areas for bicycle and pedestrian commuters
  - On-site employee cafeterias or eating areas
  - Low or non-polluting landscape maintenance equipment (e.g. electric lawn mowers, reel mowers, leaf vacuums, electric trimmers and edgers, etc.)
  - Exits to adjoining streets should be designed to reduce time to re-enter traffic from the project site

    More information can be found at:

    http://www.lgc.org, http://www.sustainable.doe.gov/,

    http://www.consumerenergycenter.org/index.html,http://www.ciwmb.ca.gov/GreenBuilding/

- The project should implement measures to reduce the amount of vehicle traffic to and from the project area that further reduce air pollution in the valley. This could include providing an information center for residents to coordinate carpooling. Check out the "Spare the Air" section of our website www.valleyair.org

- The project should include as many clean alternative energy features as possible to promote energy self-sufficiency. Examples include (but are not limited to): photovoltaic cells, solar thermal electricity systems, small wind turbines, etc. Rebate and incentive programs are offered for alternative energy equipment. More information can found at-
  http://www.dsireusa.org/, http://rredc.nrel.gov/, http://www.energy.ca.gov/renewables/

- The project should require that all diesel engines be shut off when not in use on the premises to reduce emissions from idling.

- Construction activity mitigation measures include:

- Require construction equipment used at the site to be equipped with catalysts/particulate traps to reduce particulate and NOx emissions. These catalysts/traps require the use of ultra-low sulfur diesel fuel (15 ppm). Currently, California Air Resources Board (ARB) has verified a limited number of these devices for installation in several diesel engine families to reduce particulate emissions. At the time bids are made, have the contractors show that the construction equipment used is equipped with particulate filters and/or catalysts or prove why it is infeasible.
- Use alternative fuel construction equipment.
- Replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via portable generator set).
- Install wind breaks on windward sides of construction areas.
- Curtail construction during periods of high ambient pollutant concentrations. This may include ceasing construction activity during peak-hour vehicular traffic on adjacent roadways, and "Spare the Air Days" declared by the District.
- Require that all diesel engines be shut off when not in use on the premises to reduce emissions from idling.

District staff is available to meet with you and/or the applicant to further discuss the regulatory requirements that are associated with this project. Thank you for the opportunity to comment. If you have any questions, please feel free to contact me at (209) 557-6400.

Sincerely,

John Cadrett
Environmental Planner
Northern Region

Enclosures

c: file

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT
Compliance Assistance Bulletin- December, 1994
Asbestos Synopsis

Asbestos Demolition/Renovation Summary

Prior to any renovation or demolition of a facility

Inspect: Conduct an asbestos inspection of the site before:

~Any renovation which 160 sq. ft. of building materials, or 260 linear feet of pipe insulation will be disturbed, or

~Any demolition of a facility with or without asbestos-containing materials

Notify: Submit an asbestos notification form for any regulated renovation or demolition, 10 working days before the activity.

Fees: Fees must be paid to the District with the notification for all regulated renovations and demolitions.

Demolition Release Form: Prior to any demolition, you must have completed a demolition release form. Upon its approval by the District this signed form may be used as proof (needed by the building official) of compliance with, or exemption from, the NESHAP notification requirements.

Submit this form to the building department with your application for a demolition permit.

Applicability

Facilities subject to the NESHAP (regulated facilities) include all commercial buildings, apartments with more than 4 units, other structures and non-portable equipment. Single family dwellings may be exempt, but only on a case by case basis.

Demolitions subject to the NESHAP (regulated demolitions) are demolitions of facilities described above, whether or not asbestos is present.

Regulated renovation applies to any activity in which 160 sq. ft. of regulated asbestos-containing building materials or 260 linear feet of asbestos-containing pipe insulation is disturbed at a regulated facility.

Asbestos Notification and Inspection Requirements

Definitions

Facilities:	Facilities subject to the rule include "all structures, installations, buildings and equipment, except for single family dwellings and apartments with four or fewer dwelling units." Single family dwellings and apartments are also subject to the regulation if: ~There is more than one building at a site being renovated or demolished, or ~The building had been used for, or is being removed for a commercial or public use, or is to be used as a training burn exercise.
Demolition:	In addition to the total destruction of a structure, demolitions include "the removal of any structural load-bearing member from a facility together with any related handling operations or the intentional burning of a building: (training burns conducted by a fire fighting agency). Also, the separation of a structure from its foundation prior to relocation is a demolition.
Renovation:	Altering a facility or one or more facility components in any way, including the stripping or removal of regulated asbestos-containing material (RACM) from a facility component. Renovations include all activities in which asbestos could be disturbed at a regulated facility, including the clean up and removal of debris from buildings which have burned.

San Joaquin Valley
Air Pollution Control District

COMPLIANCE ASSISTANCE BULLETIN
October 2004

Fugitive Dust Control at Construction Sites: New Requirements

Regulation VIII, Fugitive PM10 Prohibitions, of the District's Rules and Regulations apply to activities that generate fugitive dust. Fugitive dust is emitted into the air by activities that disturb the soil, such as from earthmoving activities and vehicular/equipment traffic on unpaved surfaces. Windblown dust is also of concern at construction sites.

The District adopted Regulation VIII in 1993 and its most recent amendments became effective on October 1, 2004. This is a basic summary of the regulation's requirements as they apply to construction sites.

Visible Dust Emissions (VDE) may not exceed 20% opacity during periods when soil is being disturbed by equipment or by wind at any time. Visible Dust Emissions opacity of 20% means dust that would obstruct an observer's view of an object by 20%. District inspectors are state certified to evaluate visible emissions. Dust control may be achieved by applying water before/during earthwork and onto unpaved traffic areas, phasing work to limit dust, and setting up wind fences to limit wind blown dust.

Soil Stabilization is required at regulated construction sites after normal working hours and on weekends and holidays. This requirement also applies to inactive construction areas such as phased projects where disturbed land is left unattended. Applying water to form a visible crust on the soil and restricting vehicle access are often effective for short-term stabilization of disturbed surface areas. Long-term methods including applying dust suppressants and establishing vegetative cover.

Carryout and Trackout occur when materials from emptied or loaded vehicles falls onto a paved surface or shoulder of a public road or when materials adhere to vehicle tires and are deposited onto a paved surface or shoulder of a public road. Should either occur, the material must be cleaned up at least daily, and immediately if it extends more than 50 feet from the exit point onto a paved road. The appropriate clean-up methods require the complete removal and cleanup of mud and dirt from the paved surface and shoulder. Using a blower device or dry sweeping with any mechanical device other than a PM10-efficient street sweeper is a violation. Larger construction sites must prevent carryout and trackout from occurring by installing gravel pads, grizzlies, wheel washers, paved interior roads, or a combination thereof at each exit point from the site.

Access and Haul Roads that are unpaved, as well as unpaved vehicle and equipment traffic areas at construction sites must have dust control. Speed limit signs limiting vehicle speed to 15 mph or less at construction sites must be posted every 500 feet.

Storage Piles and Bulk Materials have handling, storage, and transportation requirements that include applying water when handling materials, wetting or covering stored materials, and installing wind barriers to limit VDE. Also, limiting vehicle speeds, loading haul trucks with a freeboard of six inches or greater along

THOMAS R. FLINN
DIRECTOR

THOMAS M. GAU
DEPUTY DIRECTOR

MANUEL SOLORIO
DEPUTY DIRECTOR

STEVEN WINKLER
DEPUTY DIRECTOR

BENTON ANGOVE
BUSINESS ADMINISTRATOR

Public Works
San Joaquin County
Working for YOU

P. O. BOX 1810 - 1810 E. HAZELTON AVENUE
STOCKTON, CALIFORNIA 95201-3018
(209) 468-3000 FAX (209) 468-2999
www.co.san-joaquin.ca.us

February 10, 2005

Mr. David Stagnaro
City of Stockton
Community Development Department
Planning Division
345 North El Dorado Street
Stockton, California 95202

SUBJECT: PUBLIC REVIEW COMMENTS FOR THE NOTICE OF PREPARATION OF THE INITIAL STUDY/DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE WESTON RANCH TOWNE CENTER PROJECT (EIR5-04)

Dear Mr. Stagnaro:

The San Joaquin County Department of Public Works has reviewed the above-referenced document and our concerns, recommendations, and corrections are as follows:

The Transportation Planning Division offers the following comments:

1. All project impacts to San Joaquin County facilities, including roadways, must be mitigated in a manner that is acceptable to the County. Indicate the method of funding and schedule. Contributions to a Regional Transportation Impact Fee (RTIF) must be considered.

2. It appears that the Interstate 5 frontage road (Manthey Road) is being reconfigured. If the County road is being affected, then coordination with the County is required.

The Traffic Engineering Division offers the following comments:

1. The traffic study should take into account the high percentage of commercial vehicles utilizing roadways, French Camp Road, Manthey Road, and Mathews Road.

2. Timing of construction for the French Camp Road/Interstate 5 interchange should be identified as part of the proposed changes in traffic circulation (i.e., realignment of Manthey Road).

3. Study intersections in the County should include Wolfe Road/Howard Road, Wolfe Road/ French Camp Road, and Yettner Road/Manthey Road. Study should include the Level of Service, as well as operational-safety discussions.

4. Bearings and distances in Exhibit A (26°59'31" and 02°36'04") do not correlate to the bearings and distances on the east side of Parcel A (S26"59'34"E 98.27 and 2"38'04") in Exhibit B.

Thank you for the opportunity to be heard. Should you have questions or need additional information regarding the above comments, please contact me at 953-7624.

Sincerely,

CLAUDIA GEMBERLING
Environmental Coordinator

CG:tee
TP-5B049-E1

c: David Mendoza, Senior Civil Engineer
Tom Okamoto, Senior Civil Engineer

STATE OF CALIFORNIA
FACSIMILE COVER
10-2A-0049 (NEW 10/92)

ATTENTION:	FROM:	
David Stagnaro	Dan Brewer Department of Transportation 1976 East Charter Way Stockton, CA 95205	
UNIT/COMPANY: City of Stockton Community Development Department Planning Division 425 North El Dorado Street Stockton, CA 95202-1997	DATE: February 11, 2005	TOTAL PAGES (Including Cover Page) 4
	FAX # (Include Area Code) (209) 948-7194	ATSS FAX 8-423-7194
DISTRICT/CITY	PHONE # (& Area Code) (209) 948-7142	ATSS 8-423-7142
PHONE # (& Area Code) FAX # (& Area Code) (209) 937-8316 (209) 937-8893	ORIGINAL DISPOSITION: Destroy ☐ Return ☐ Call for Pickup ☐	

COMMENTS:

SJ-5-PM 22.7
SCH 2005012056
Weston Ranch Towne Center

DEPARTMENT OF TRANSPORTATION
P.O. BOX 2048 STOCKTON, CA 95201
(1976 E. CHARTER WAY/1976 E. DR. MARTIN
LUTHER KING JR. BLVD. 95205)
TTY: California Relay Service (800) 735-2929
PHONE (209) 941-1921
FAX (209) 948-7194

Flex your power!
Be energy efficient!

February 11, 2005

10-SJ-5
Post Mile 22.7
SCH 2005012056
Weston Ranch Towne Center

David Stagnaro
City of Stockton
Community Development Department
Planning Division
425 North El Dorado Street
Stockton, CA 95202-1997

Dear Mr. Stagnaro:

The California Department of Transportation (Department) appreciates the opportunity to have reviewed the Notice of Preparation (NOP) number SCH 2005012056 for the proposed commercial development near Interstate 5 (I-5), I-5/Downing Avenue interchange, and I-5/ French Camp Road interchange. The Department has the following comments:

- The Department will require a traffic impact study (TIS) to determine the cumulative effects of this project at build-out. As stated on page 22 of the NOP, the TIS needs to include the existing conditions of the French Camp Road interchange, as well as the City of Stockton improvements scheduled for construction in fiscal year 2006/2007 in which the Department is providing oversight. In-addition, the analysis needs to include the conditions at the I-5/Downing Avenue interchange as it is providing regional access as stated on page 9 of the NOP. This analysis should include the following:

  - Trip generation, distribution and assignment. Documentation should include source and methodology of the data that is presented.

  - Average daily traffic (ADT), AM and PM peak hour volumes on all significantly affected streets and highways, including freeway ramps and crossroads, and

controlling intersections. Traffic volumes should be presented for existing and future conditions, the latter for a cumulative build and a no build scenario that includes all approved developments in the area. The coverage should include all traffic that would affect the facilities evaluated and should not be limited to projects under the jurisdiction of the lead agency.

- Traffic impacts should be evaluated in terms of a level of service (LOS) analysis that is consistent with the most recent version of the Highway Capacity Manual (HCM), or by a uniform methodology which is consistent with the HCM.

- Proposed mitigation should include highway improvements and modal alternates and any proposed funding mechanisms.

- The Department has determined that this project will contribute to cumulative impacts on I-5 main lanes as well as the I-5/Downing Avenue and I-5/French Camp Road interchanges. Therefore, the Department recommends the collection of impact fees on a "Fair Share" basis for improvements to these facilities.

- As indicated above, the Department is providing oversight for the locally funded reconstruction of the French Camp/Sperry Road interchange. This interchange project is in the project approval/environmental document (PA&ED) stage as indicated in the "Caltrans Status of Projects Central Region District 10." The expenditure authorization (EA) for this project is 0E490.

- The Department encourages contacting the Native American Heritage Commission 915 Capitol Mall, Room 364, Sacramento, California 95814, (916) 653-4082, (916) 657-5390 [FAX] for advice on consulting with Native Americans regarding any cultural concerns within the project area.

- An Encroachment Permit will be required for any work done within the Department's right of way. This work is subject to the California Environmental Quality Act. Therefore, additional biological, archaeological, or other environmental studies may be required as part of the encroachment permits application. A qualified professional must conduct any such studies undertaken to satisfy the Department's environmental review responsibilities. Ground disturbing activities to the site prior to completion and/or approval of required environmental documents may affect the Department's ability to issue a permit for the project. Furthermore, if engineering plans or drawings will be part of your permit application, they should be prepared in both metric and standard units.

If you have any questions or would like to discuss our comments in more detail, please contact Dan Brewer at (209) 948-7142 (e-mail: dan.brewer@dot.ca.gov) or me at (209) 941-1921.

Sincerely,

for

TOM DUMAS, Chief
Office of Intermodal Planning

City of Lathrop

16775 Howland Road
Lathrop, California 95330
(209) 858-2860
Fax (209) 858-5259

February 9, 2005

David Stagnaro, AICP
City of Stockton
Community Development Department
Planning Division
345 North El Dorado Street
Stockton, CA 95202

RE: Notice of Preparation Weston Ranch Towne Center Project (EIR5-04)

Dear Mr. Stagnaro:

At its regularly scheduled meeting of February 8, 2005, the Lathrop City Council directed staff to submit a letter in response to the Notice of Preparation for the proposed Draft Environmental Impact Report for the subject commercial project located north of French Camp Road, west of Manthey Road and Interstate 5, and east of McDougal Boulevard. The City has reviewed the documents and would request a copy of the Draft EIR to review and comment during the public review period.

Thank you for the opportunity to comment on this project. Please continue to provide required notices of subsequent action to the City of Lathrop. If you have any questions regarding this letter please contact me at (209) 858-2860 Extension 327.

Sincerely

Sincerely

Deanna D. Walsh
Principal Planner

cc: Mayor
City Council
City Manager
Community Development Director

MEMORANDUM

February 18, 2005

TO: James E. Glaser, Community Development Director
Attention: David Stagnaro, Senior Planner

FROM: Gregg S. Meissner, Development Services Manager

SUBJECT: **COMMENTS ON THE ON THE PUBLIC REVIEW OF THE NOTICE OF PREPARATION/INITIAL STUDY FOR THE WESTON RANCH TOWNE CENTER PROJECT (EIR5-04)**

Public Works staff reviewed the subject Notice of Preparation and based on their review, staff offers the following comments:

1. Figure 4, Proposed Project Preliminary Site Plan needs the following concerns addressed:
   a) Text size needs to be enlarged.
   b) The vicinity map should correct the annotation so that the orientation reads right-side-up.
   c) Need to show the existing property line(s) for the "vacant land" located to the north of the project site (37.34 acres).

2. Page 29 of "Environmental Information and Initial Study Form", Section16, "Utilities and Service Systems", part "a"; the sanitary sewer for the project site will be served by a 10 inch and 15 inch pipeline located in Henry Long Boulevard not in William Moss Boulevard as stated in the document, please correct.

3. Exhibit B of Attachment 1, The Scale of 1" = 300-feet is incorrect for the long bearing distances, please correct. The arrows showing the 25-foot dimension along Manthey Road are incorrectly placed, please correct.

4. Page 22, Transportation/Traffic. Cumulative and Cumulative plus Project analysis shall be performed with the new General Plan land uses and Existing General Plan land uses.

5. Page 23, Transporation/Traffic. Need to analyze the operations and necessity of having three closely located traffic signals (within ± quarter mile) at the project entrance along French Camp Road which is a major arterial roadway.

JAMES B. GIOTTONINI
PUBLIC WORKS DIRECTOR

GREGG S. MEISSNER
DEVELOPMENT SERVICES MANAGER

JGB:GSM:mpm

cc: Reed Hogan, Senior Civil Engineer
PW files

::ODMA\GRPWISE\COS.PW.PW_Library:75835.1

SAN JOAQUIN RTD

1533 East Lindsay Street | Stockton, California | 95205
209.948.5566 | 209.948.8516 [fax] | sanjoaquinRTD.com

BOARD OF DIRECTORS CHAIR D David Smith VICE CHAIR Duane Isetti James S Barbour Floyd H Weaver Anthony H Stevens
GENERAL MANAGER CEO Donna Kelsay

March 14, 2005

RECEIVED
MAR 17 2005
CITY OF STOCKTON
PERMIT CENTER/PLANNING DIVISION

Mr. Mark Martin, Project Manager II
City of Stockton
Community Development Department
Planning Division
425 North El Dorado Street
Stockton, CA 95202-1997

Dear Mr. Martin:

In February 2005, the San Joaquin Regional Transit District (RTD) staff commented on the Notice of Preparation/Initial Study for the Weston Ranch Towne Center Project and provided a list of transit elements for consideration in the final design for the proposed project. RTD staff would like to reiterate the importance of including our suggestions as the City moves ahead with this project.

In my previous letter to Senior Planner David Stagnaro, we requested that a bus turnout be constructed on Manthey Road to enable RTD drivers to pull out of the traffic lane to safely board and deboard passengers traveling to the Weston Ranch Towne Center. In addition to our request for a turnout on Manthey Road, RTD would like to request a bus turnout on French Camp Road as well.

A copy of my letter sent to Mr. Stagnaro in February is attached. We are very interested in working with the City of Stockton and would appreciate being apprised of any new developments as they arise. Please feel free to contact me at 209-948-5566, ext. 696 if you have any questions or would like to discuss this further.

Sincerely,

ELovi

Eunice Lovi,
Planning Manager

cc: Donna Kelsay, General Manager/CEO
Gloria Salazar, Assistant General Manager/CFO

DIS/MM

THOMAS R. FLINN
DIRECTOR

THOMAS M. GAU
DEPUTY DIRECTOR

MANUEL SOLORIO
DEPUTY DIRECTOR

STEVEN WINKLER
DEPUTY DIRECTOR

ROGER JANES
BUSINESS ADMINISTRATOR

Public Works
San Joaquin County
Working for YOU

P. O. BOX 1810 - 1810 E. HAZELTON AVENUE
STOCKTON, CALIFORNIA 95201-3018
(209) 468-3000 FAX (209) 468-2999
www.sjgov.org

December 13, 2005

Mr. Mark Martin
City of Stockton
Community Development Department
345 North El Dorado Street
Stockton, California 95202

SUBJECT: NOTICE OF PREPARATION/INITIAL STUDY FOR THE WESTON RANCH TOWNE CENTER PROJECT

Dear Mr. Martin:

The San Joaquin County Department of Public Works has reviewed the above referenced document and our concerns are as follows:

From Traffic Engineering Division:

- The study needs to address the impacts and mitigations to nearby intersections along French Camp Road, including intersections with Interstate 5 ramps.
- Please address impacts and mitigations to intersections at Mathews Road and Manthey Road as well as Mathews Road intersections with Interstate 5 ramps.
- Please address the geometric impacts and right-of-way impacts needed to provide the capacity required at the French Camp and Manthey Road intersection. This would include the tapers and transition sections needed to convert the multi-lane intersections back to a two-lane roadway south of the intersection of the County approach leg.

Thank you for the opportunity to comment. Should you have any questions or need additional information, please contact me at (209) 468-8494.

Sincerely,

ANDREA VALLEJO
Assistant Transportation Planner

AV:to
TP-5L024-T1

c: Thomas K. Okamoto, Senior Civil Engineer
Michael C. Selling, Senior Civil Engineer
Dwayne B. Sabiniano, Engineering Assistant II

San Joaquin Valley
Air Pollution Control District

DEC 16 2005

Reference No. C200501630

December 14, 2005

Mark Martin
City of Stockton
Community Development Department
345 North El Dorado Street
Stockton, Ca 95202

Subject: Revised Notice Of Preparation – Draft Environmental Impact Report For The Weston Ranch Towne Center Project SCH No. 2005012056

Dear Mr. Martin:

The San Joaquin Valley Unified Air Pollution Control District (District) has previously commented on this project (District Reference No. N20050040 dated February 10, 2005 sent to Mr. David Stagnaro). In addition to previous comments, the District offers the following comments.

Based on the information provided, the proposed project will be subject to the following District rules. The following items are rules that have been adopted by the District to reduce emissions throughout the San Joaquin Valley, and are required.

Rules and Regulations

Rule 3135 (Dust Control Plan Fee) This rule requires the applicant to submit a fee in addition to a Dust Control Plan. The purpose of this fee is to recover the District's cost for reviewing these plans and conducting compliance inspections. More information on the fee is available at: http://www.valleyair.org/rules/currntrules/Rule%203135%201005.pdf.

Rule 4601 (Architectural Coatings) This rule limits volatile organic compounds from architectural coatings by specifying architectural coatings storage, clean up and labeling requirements.

Rule 4621 (Gasoline Transfer into Stationary Storage Containers, Delivery Vessels, and Bulk Plants) This rule limits VOC emissions from stationary gasoline storage tanks with capacity greater than 250 gallons (except for tanks subject to Rule 4623), gasoline delivery vessels, and tanks with capacity than 250 gallons, but not exceeding 19,800 gallons located at gasoline bulk plants.

Rule 4622 (Gasoline Transfer into Motor Vehicle Fuel Tanks) This rule limits emissions of gasoline vapors from the transfer of gasoline into motor vehicle fuel tanks.

Rule 4692 (Commercial Charbroiling) This rule regulates chain-driven charbroilers to limit Volatile Organic Compounds (VOC) and PM10 emissions. Items subject to this rule include (but are not limited to): grill charbroilers, flamebroilers and direct-fired barbecues.

ATC/PTO If a generator (for example, to be used as an emergency electricity source) of 50-brake hp or more is installed, this project will be subject to the permitting requirements of the District. Any

David L. Crow
Executive Director / Air Pollution Control Officer

Northern Region Office
4800 Enterprise Way
Modesto, CA 95356-8718
(209) 557-6400 • FAX (209) 557-6475

Central Region Office
1990 East Gettysburg Avenue
Fresno, CA 93726-0244
(559) 230-6000 • FAX (559) 230-6061

Southern Region Office
2700 M Street, Suite 275
Bakersfield, CA 93301-2373
(661) 326-6900 • FAX (661) 326-6985

www.valleyair.org

equipment subject to the District's Permit to Operate requirements must obtain an Authority to Construct (ATC) from the District. Construction of equipment that requires an ATC, and intimately related appurtenances such as foundations and utility hookups for the equipment, cannot begin until an ATC is obtained. Construction of equipment not requiring a District permit is not subject to this ATC requirement. Depending upon the nature and complexity of the application and staff workload, ATC approval can take several months. For further information, the applicant should contact the District's Small Business Assistance Office or our Permit Services Section at (209) 557-6400 to avoid unnecessary delays in the project.

As we noted in our earlier comment letter, this project may be subject to additional District Rules not listed above. To identify additional rules or regulations that apply to this project, the applicant is strongly encouraged to contact the District's Small Business Assistance Office at ((209) 557-6400 once the specific uses are determined.

Mitigation Agreement

In addition to the above measures, the District has entered into Air Quality Mitigation Agreements (Agreement) with several developers as an alternative approach to further reducing air quality impacts. These agreements require the District and the applicant to quantify operational emissions, and identify on-site mitigation to reduce the proposed project's net impact on air quality. The developer commits to providing funding on a per ton of emissions basis to the District to purchase emission reductions through its grant and incentive programs to fully mitigate the net emissions. The District commits to reduce the net emissions and to manage and monitor the emission reduction projects over time. The District asks that developers interested in an agreement meet with District staff to discuss the specifics of the project and the contract. District staff is available to meet with project proponents to discuss agreements for specific projects. For more information, or questions concerning this topic, please call Mr. Dave Mitchell, Planning Manager, at (559) 230-5800.

Thank you for the opportunity to comment. District staff is available to meet with you and/or the applicant to further discuss the regulatory requirements that are associated with this project. If you have any questions or require further information, please call me at (559) 230-5820 and provide the reference number at the top of this letter.

Sincerely,

Hector R. Guerra
Senior Air Quality Planner

c: file

12/8

STATE OF CALIFORNIA -- THE RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 942360001
(916) 653-5791

DEC 02 2005

Mark Martin
City of Stockton, Community Development Department
345 North El Dorado Street
Stockton, California 95202

DEC 06 2005

Weston Ranch Towne Center
State Clearinghouse (SCH) Number: 2005012056

Staff for The Department of Water Resources has reviewed the subject document and provides the following comments:

Portions of the proposed project may be located within a regulated stream over which The Reclamation Board has jurisdiction and exercises authority. If the project includes any "channel reconfiguration" that was not previously permitted, new plans must be submitted. Section 8710 of the California Water Code requires that a Board permit must be obtained prior to start of any work, including excavation and construction activities, within floodways, levees, and 10 feet landward of the landside levee toes. A list of streams regulated by the Board is contained in the California Code of Regulations, Title 23, Section 112.

Section 8(b)(2) of the Regulations states that applications for permits submitted to the Board must include a completed environmental questionnaire that accompanies the application and a copy of any environmental documents if they are prepared for the project. For any foreseeable significant environmental impacts, mitigation for such impacts shall be proposed. Applications are reviewed for compliance with the California Environmental Quality Act.

Section 8(b)(4) of the Regulations states that additional information, such as geotechnical exploration, soil testing, hydraulic or sediment transport studies, biological surveys, environmental surveys and other analyses may be required at any time prior to Board action on the application.

You may disregard this notice if your project is outside of the Board jurisdiction. For further information, please contact Sam Brandon of my staff at (916) 574-0651.

Sincerely,

MARK - FROM WHAT I CAN DETERMINE THIS COMMENT HAS NO BEARING ON THIS PROJECT.

DAVE

Mike Mirmazaheri, Chief
Floodway Protection Section

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, CA 95814

RECEIVED
CITY OF STOCKTON
DEC 12 2005
PERMIT CENTER
PLANNING DIVISION

William D. Kopper
Attorney at Law
417 E Street
Davis, CA 95616
(530) 758-0757
Fax (530) 758-2844

Paralegals
Kristin Rauh
Jan Scott

December 9, 2005

VIA FACSIMILE: 209-937-8893

Mark D. Martin, Project Manager
Community Development Department
Planning Division, City of Stockton
345 M. El Dorado Street
Stockton, CA 95202

Re: Weston Ranch Towne Center Project (EIR 5-04)
Notice of Preparation

Dear Mr. Martin:

I wish to provide comments on the Notice of Preparation that was provided for the Weston Ranch Towne Center Project, dated November 15, 2005.

After review of the site plan provided by the City of Stockton, we compared the site plan to those of other projects. The site plan for major store #1 (206,417 square feet) is identical to that of other Wal-Mart Supercenters. Therefore, it is clear that the major store #1 in the Weston Ranch Towne Center will be a Wal-Mart Supercenter.

Wal-Mart Supercenters have unique traffic generation impacts. I have included a study completed by VRPA Technologies, Inc. This study was peer-reviewed and demonstrates that the Wal-Mart Supercenters generate substantially more traffic than disclosed in the ITE Trip Generation Manual. Therefore, we ask that the project EIR evaluate the shopping center as if it included a Wal-Mart Supercenter. We ask that the EIR traffic analysis section take into account the substantially greater quantity of traffic generated by a Wal-Mart Supercenter.

Additionally, Wal-Mart Supercenters generally close two supermarkets for every Wal-Mart Supercenter. As I am sure you are aware, Supercenters include a supermarket of approximately 60,000 square feet. We ask that in the economic study you prepare for the EIR, you consider the shopping center to include a Wal-Mart Supercenter. We ask that the unique economic / blight-inducing impacts of a Wal-Mart Supercenter be considered in the Environmental Impact Report.

Thank you for your consideration of these matters.

Sincerely,

WILLIAM D. KOPPER

WDK:js

TRIP GENERATION STUDY

Free Standing Discount Superstore

This Trip Generation Study has been prepared for the purpose of analyzing traffic conditions related to five (5) Free Standing Discount Superstores.

1.0 INTRODUCTION

Trip generation for traffic impact analyses is typically conducted using trip generation rates published by the Institute of Traffic Engineers (ITE). In the case of a Free Standing Discount Superstore, the published trip generation rates are based on surveys during the 1990s throughout the southern central United States. It is believed these surveys may be inaccurate for analyzing traffic generation at Discount Superstores because (1) stores surveys averaged 154,000 square feet during the 1990 surveys and today's Discount Superstores average closer to 200,000 square feet (202,000 for purposes of this study) and (2), sales have probably increased at Discount Superstores over the past decade resulting in higher traffic volumes.

The current ITE category used for a Free Standing Discount Superstore is:

- Land Use: 813 – Free Standing Discount Superstore

  This category is generally described as a free-standing store with off-street parking. They usually have a variety of customer services, centralized cashiering, a wide range of products, and include a grocery store. The stores typically maintain long hours seven days a week and are often the only ones on the site, but can also be found in mutual operation with a unrelated garden center, service station, restaurant, or other retail store(s). Typically, the discount superstore will maintain their own dedicated parking.

Table 1-1 depicts the ITE published average daily weekday rate of traffic and PM peak hour rate of adjacent street traffic for a Free-Standing Discount Superstore per 1,000 square feet gross floor area.

Table 1-1
Free-Standing Discount Superstore ITE Trip Generation

Weekday			PM Peak Hour of Adjacent Traffic		
Average Rate	Entering	Exiting	Average Rate	Entering	Exiting
46.96	50 %	50 %	3.82	49 %	51 %

1.1 METHODOLOGY

Since the currently accepted and utilized trip generation rate for the Free Standing Discount Superstore is in question, this study looks at five (5) stores that fit the ITE definition in the states of Oklahoma and Texas to estimate their peak hour trip generation.

The site selection process is described in detail in Chapter 2 but is generally overviewed below. Field review of all locations included a sketch level drawing of the site plan, including the driveways to be counted at each location. Each building's square footage was attained and calculated by site plans obtained from each local jurisdiction in which the superstore was located, by a measuring wheel during field review, or by contact with the store. The square footage of the garden center and tire and lube shop was not available at all locations. Based on the average square footage of known locations, the square footage of the garden center and tire and lube shop has been estimated at 10,559 square feet. These sites are referenced in Chapter 2.

Staff was positioned at the driveway openings and traffic counts at each of the facilities described in Chapter 2 were conducted on two typical weekdays (Tuesday, Wednesday and/or Thursday) from 4:00 PM – 6:00 PM. It should be noted that no inclement weather occurred during the traffic counts. Appendix A contains a summary of all counts that were conducted. The peak hour of traffic from 4:30 – 5:30 PM was used for analysis in Chapter 3.

2.0 SITE SELECTION

As defined in the Institute of Traffic Engineers Trip Generation Book, 6th Edition, Free Standing Discount Superstore locations were chosen for study that had dedicated parking, provided general merchandise and a grocery store, and operated seven days a week. A description of each location is described below including the type of services (in addition to general merchandise) provided at that Superstore location and a typical site plan has been included as Figure 2.1.

1. *Garden Center/Grocery/Pharmacy/Photo Center/Portrait Studio/Tire & Lube*
   The building totals 199,361 (210,945 with the garden center and tire and lube shop) square feet and is currently on the site with no other developments. Six (6) driveways were counted for the analysis.

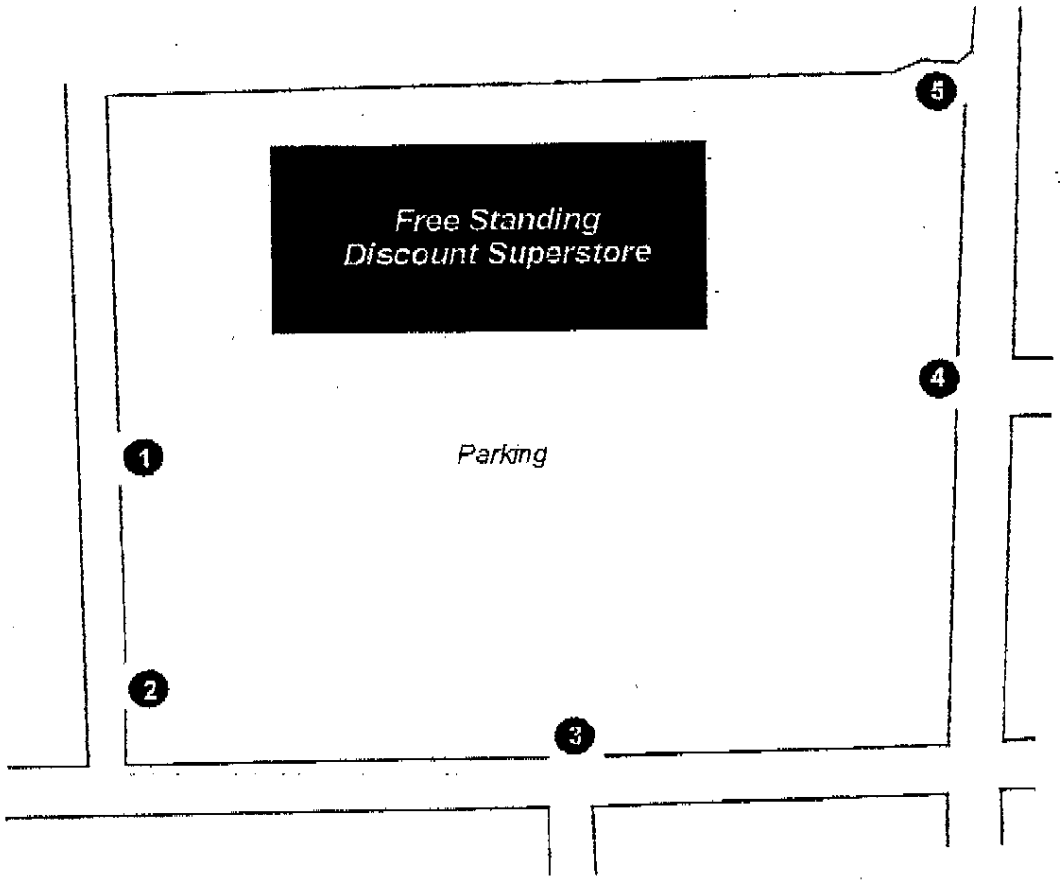
2. *Garden Center/Gas Station/Grocery/Pharmacy/Photo Center/Portrait Studio/Tire & Lube*
   The Superstore site totals 209,115 square feet with the garden center and tire and lube shop. On average, the square footage for a garden center and tire and lube shop is 10,559 square feet as previously discussed, therefore the building has been estimated at 198,556. The building has a driveway entrance from a gas station located at the southwest corner of the property. For analysis purposes the traffic entering in and out of the driveway connecting the gas station and Superstore parking lot was counted. A total of four (4) driveways were counted for analysis.

3. *Garden Center/Gas Station/Grocery/McDonald's/Pharmacy/Photo Center/Portrait Studio/Tire & Lube*
   The building totals 204,000 square feet with the garden center and tire and lube shop. On average the square footage for a garden center and tire and lube shop is 10,559 square feet as previously discussed, therefore the building has been estimated at 193,441 and has an additional 4-pump gas station of 225 square feet. For purposes of this study the gas station's square footage has not been included in the analysis. There are six (6) driveway entrances to the parking lot that were counted for the analysis.

4. *Garden Center/Grocery/McDonald's/Pharmacy/Photo Center/Portrait Studio/Tire & Lube/Vision Center*
   The Superstore site totals 209,000 square feet with the garden center and tire and lube shop. On average the square footage for a garden center and tire and lube shop is 10,559 square feet as previously discussed, therefore the building has been estimated at 198,441 and four (4) driveways were counted for analysis.

5. *Garden Center/Gas Station/Grocery/Pharmacy/Photo Center/Portrait Studio/Tire & Lube/Vision Center*

The Superstore totals 233,000 square feet with the garden center and tire and lube shop. On average the square footage for a garden center and tire and lube shop is 10,559 square feet as previously discussed, therefore the building has been estimated at 221,441. Five (5) driveways were counted including the driveway entrance between the two parking areas.



Typical Free Standing Discount Superstore Site Plan	Figure 2-1
Legend 1 Count Location	VRPA Technologies, Inc.

3.0 TRIP GENERATION ANALYSIS

Trip generation was conducted by utilizing the average peak hour (4:30 – 5:30 PM) counts and the square footage of each Free Standing Discount Superstore to determine the trips per 1,000 square feet during the PM Peak Hour. Further, the average traffic turning in and out of the Superstore driveways were each divided by total traffic to determine the PM Peak Hour In and Out percentages.

The two days of traffic counts in Appendix A have been summarized for each of the five (5) locations and the average rate for PM Peak Hour traffic and the In and Out percentages calculated in Table 3-1.

Table 3-1
Trip Generation

Site	PM Peak Hour Trips In	In %	Out	Out%	Total Traffic	1,000 Square Feet	Trip Generation Rate (Trips per 1,000 Sq. ft.)
1	694	50.2%	689	49.9%	1382	199.36	6.93
2	496	49.6%	505	50.4%	1001	198.56	5.04
3	705	51.8%	656	48.2%	1361	193.44	7.04
4	418	48.2%	451	52.0%	868	198.44	4.37
5	615	49.6%	624	50.4%	1239	221.44	5.60
Average		**49.9%**		**50.2%**	**1170**	**202.25**	**5.80**

4.0 RECOMENDATIONS

Trip generation rates for the Free Standing Discount Superstore in Tables 3-1 and 3-3 were compared to the PM peak hour rate of adjacent street traffic for a Free-Standing Discount Superstore in Table 1-1, the currently accepted ITE Trip Generation. Table 4-1 Summarizes the ITE rate and the average rate for the analyzed Free Standing Discount Superstore stand-alone PM Peak Hour of Adjacent Traffic.

Table 4-1
Trip Generation Comparison

	In	Out	Average Rate
ITE Trip Generation	49	51	3.82
Study Average	49.9	50.2	5.80

Since all sites studied concluded higher trip generation rates for the PM Peak Hour, the Study Rate displayed in Table 4-1 of 5.80 should be the preferred choice when calculating trip generation for a Free Standing Discount Superstore that qualifies under the definition of this study.

Appendix A

Traffic Counts

Site #1 - 7/30/03

Time	Driveway 1 In	1 Out	2 In	2 Out	3 In	3 Out	4 In	4 Out	5 In	5 Out	6 In	6 Out
16:00	60	15	24	46	50	49	5	14	10	4	9	12
16:15	71	14	17	40	63	69	5	21	9	8	11	13
16:30	65	22	18	54	57	44	7	11	11	7	15	14
16:45	64	13	16	47	64	63	8	15	6	6	13	13
17:00	65	21	13	48	53	75	3	11	6	6	15	18
17:15	81	15	9	40	63	75	5	11	1	0	14	21
17:30	69	38	13	42	66	68	6	10	5	4	7	20
17:45	78	23	16	45	66	65	7	15	6	8	10	11
	553	161	126	362	482	508	46	108	54	43	94	122

Total		2659
Total In/Out	1355	1304
Peak Hour Total		1322
Peak Hour In/Out	672	650
Peak Hour In/Out %	50.8%	49.2%

Site #1 - 10/29/03

Time	Driveway 1 In	1 Out	2 In	2 Out	3 In	3 Out	4 In	4 Out	5 In	5 Out	6 In	6 Out
16:00	76	18	14	57	75	80	7	17	3	3	1	10
16:15	71	21	13	38	68	65	8	9	2	5	2	12
16:30	73	19	12	61	71	57	7	12	8	4	0	4
16:45	63	23	7	61	60	73	11	15	6	5	4	12
17:00	97	15	8	46	74	74	20	11	7	5	6	14
17:15	63	14	14	60	81	100	10	23	7	7	6	12
17:30	94	22	9	51	88	115	14	21	12	7	7	18
17:45	97	16	9	54	88	94	13	12	3	9	5	11
	634	148	86	428	605	658	90	120	48	45	31	93

Total		2986
Total In/Out	1494	1492
Peak Hour Total		1442
Peak Hour In/Out	715	727
Peak Hour In/Out %	49.6%	50.4%

Average Peak Hour **1,382** **Average In/Out** **694/689**

Site #2 - 7/29/03

Time	Driveway 1 In	Driveway 1 Out	Driveway 2 In	Driveway 2 Out	Driveway 3 In	Driveway 3 Out	Driveway 4 In	Driveway 4 Out
16:00	48	17	19	34	41	53	2	3
16:15	29	30	18	35	44	40	2	2
16:30	57	23	15	22	49	66	4	2
16:45	58	33	19	46	53	55	4	6
17:00	41	32	23	30	35	46	3	6
17:15	46	33	14	35	60	50	3	4
17:30	54	26	17	33	40	42	6	8
17:45	52	28	22	32	37	20	6	3
	385	222	147	267	359	372	30	34
Total				1816				
Total In/Out			921	895				
Peak Hour Total				973				
Peak Hour In/Out			484	489				
Peak Hour In/Out %			49.7%	50.3%				

Site #2 - 10/29/03

Time	Driveway 1 In	Driveway 1 Out	Driveway 2 In	Driveway 2 Out	Driveway 3 In	Driveway 3 Out	Driveway 4 In	Driveway 4 Out
16:00	54	31	27	27	53	50	6	4
16:15	45	25	19	31	47	58	7	3
16:30	39	26	26	30	46	45	4	8
16:45	48	31	20	29	54	55	9	6
17:00	56	29	19	43	55	65	8	8
17:15	43	38	28	39	48	66	5	2
17:30	59	26	30	37	58	59	5	6
17:45	53	29	18	44	40	60	3	7
	397	235	187	280	401	458	47	44
Total				2049				
Total In/Out			1032	1017				
Peak Hour Total				1028				
Peak Hour In/Out			508	520				
Peak Hour In/Out %			49.4%	50.6%				

Average Peak Hour 1,001 · **Average In/Out 496/505**

Site #3 - 7/29/03

	Driveway											
	1		2		3		4		5		6	
Time	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
16:00	37	46	8	35	43	25	4	6	35	38	4	12
16:15	36	36	16	33	52	22	6	4	41	30	8	11
16:30	44	51	11	18	41	24	6	9	40	35	11	14
16:45	51	41	11	28	41	30	9	4	42	36	3	16
17:00	55	29	11	24	51	32	5	10	37	30	9	13
17:15	52	45	19	27	45	28	7	8	45	42	5	10
17:30	45	42	16	28	49	34	7	3	33	31	5	9
17:45	52	39	12	32	42	21	3	5	44	36	5	7
	372	329	104	225	364	216	47	49	317	278	50	92

Total		2443
Total In/Out	1254	1189
Peak Hour Total		1255
Peak Hour In/Out	651	604
Peak Hour In/Out %	51.9%	48.1%

Site #3 - 10/29/03

	Driveway											
	1		2		3		4		5		6	
Time	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
16:00	49	61	16	39	63	28	7	4	48	33	2	18
16:15	59	44	10	32	59	41	6	8	40	48	8	11
16:30	58	53	14	39	49	20	11	6	51	42	8	17
16:45	48	59	21	40	50	31	12	9	44	39	11	15
17:00	56	48	21	36	55	30	7	9	42	33	11	12
17:15	63	45	25	36	40	33	9	7	44	37	9	12
17:30	64	51	17	36	41	22	11	13	51	44	9	8
17:45	61	46	14	35	40	29	6	4	41	39	12	14
	458	407	138	293	397	234	69	60	361	315	70	107

Total		2909
Total In/Out	1493	1416
Peak Hour Total		1467
Peak Hour In/Out	759	708
Peak Hour In/Out %	51.7%	48.3%

Average Peak Hour 1,361 **Average In/Out 705/656**

Site #4 - 7/23/03

Time	Driveway 1 In	Driveway 1 Out	Driveway 2 In	Driveway 2 Out	Driveway 3 In	Driveway 3 Out	Driveway 4 In	Driveway 4 Out
16:00	37	36	42	56	5	6	8	14
16:15	37	40	54	63	3	6	11	8
16:30	29	43	58	61	9	5	12	20
16:45	39	29	65	49	3	6	5	10
17:00	32	43	54	61	7	4	12	14
17:15	42	33	56	50	6	2	9	23
17:30	33	40	45	68	0	6	12	17
17:45	37	44	50	76	2	5	19	16
	286	308	424	484	35	40	88	122
Total				1787				
Total In/Out			833	954				
Peak Hour Total				891				
Peak Hour In/Out			438	453				
Peak Hour In/Out %			49.2%	50.8%				

Site #4 - 10/28/03

Time	Driveway 1 In	Driveway 1 Out	Driveway 2 In	Driveway 2 Out	Driveway 3 In	Driveway 3 Out	Driveway 4 In	Driveway 4 Out
16:00	28	30	61	37	3	6	15	16
16:15	33	46	66	44	4	7	7	15
16:30	39	49	54	49	0	5	16	10
16:45	45	36	51	52	2	3	13	22
17:00	31	50	49	57	3	13	9	11
17:15	27	28	43	42	2	6	13	15
17:30	44	25	53	57	5	6	9	10
17:45	41	49	64	43	2	1	16	19
	288	313	441	381	21	47	98	118
Total				1707				
Total In/Out			848	859				
Peak Hour Total				845				
Peak Hour In/Out			397	448				
Peak Hour In/Out %			47.0%	53.0%				

Average Peak Hour 868 **Average In/Out 418/451**

Site #5 - 8/5/03

Time	Driveway 1 In	Driveway 1 Out	Driveway 2 In	Driveway 2 Out	Driveway 3 In	Driveway 3 Out	Driveway 4 In	Driveway 4 Out	Driveway 5 In	Driveway 5 Out
16:00	70	58	8	11	52	68	24	8	12	13
16:15	61	51	11	6	40	60	18	7	9	17
16:30	45	55	7	5	59	48	21	7	12	11
16:45	63	60	4	7	56	54	19	8	8	11
17:00	69	54	2	4	49	72	23	4	15	12
17:15	56	59	10	7	67	59	13	13	8	20
17:30	58	70	10	5	56	57	8	5	8	17
17:45	57	51	13	6	66	58	16	5	13	15
	479	458	65	51	445	476	142	57	85	116

Total		2374
Total In/Out	1216	1158
Peak Hour Total		1176
Peak Hour In/Out	606	570
Peak Hour In/Out %	51.5%	48.5%

Site #5 - 10/28/03

Time	Driveway 1 In	Driveway 1 Out	Driveway 2 In	Driveway 2 Out	Driveway 3 In	Driveway 3 Out	Driveway 4 In	Driveway 4 Out	Driveway 5 In	Driveway 5 Out
16:00	91	47	6	3	59	70	20	4	19	8
16:15	61	60	4	5	58	67	19	6	7	13
16:30	61	65	4	7	54	83	16	11	9	12
16:45	60	74	6	12	58	66	16	5	9	18
17:00	65	51	2	7	60	65	16	9	9	20
17:15	73	67	7	8	63	76	21	6	15	15
17:30	72	58	9	4	69	91	16	16	15	13
17:45	73	62	2	5	55	66	17	8	10	15
	556	484	40	51	476	584	141	65	93	114

Total		2604
Total In/Out	1306	1298
Peak Hour Total		1301
Peak Hour In/Out	624	677
Peak Hour In/Out %	48.0%	52.0%

Average Peak Hour 1,239 · **Average In/Out 615/624**

Trip Generation Characteristics of Free-Standing Discount Superstores

Stacey Stewart Kurz, VRPA Technologies, Inc.
Georgiena Vivian, VRPA Technologies, Inc.

In the past decade there has been an insurgence in the number of proposed free-standing discount superstores throughout the country. These stores have continued to gain in popularity because of their convenience, combining general retail merchandise, full service grocery departments, and other specialty shops such as pharmacies and photo processing at discount rates. Due to this popularity, many localities have a growing concern over the impact these stores have on their communities and infrastructure system. Regarding traffic impacts, an important issue has been raised concerning the correlation between the average size of the store and the trip generation rate, specifically:

- Should the size of the store affect the trip generation rate that is used or should the average rate be used for all stores?

This feature provides a summary of a trip generation study prepared for a major discount superstore company located throughout the United States.

CURRENT TRIP GENERATION DATA

The Institute of Transportation Engineers' (ITE) Trip Generation manual is typically used to estimate the number of site-generated trips associated with a given land use. The land use most commonly employed to study large general retailers with a full service grocery department is free-standing discount superstore (ITE Land Use Code 813). In addition, data for shopping centers (ITE Land Use Code 820) is sometimes used to evaluate the transportation impacts of discount superstores when they are part of a larger shopping center development.

ITE Land Use Code 813 characterizes free-standing discount superstores as "free-standing stores offering a variety of customer services, centralized cashiering, a wide range of products and *a full service grocery department* under the same roof. Discount Superstores typically maintain long store hours 7 days a week and can also be found in mutual operation with a related or unrelated garden center and/or service station."

The currently accepted ITE trip generation rates for p.m. peak hour of adjacent traffic are displayed for the two identified land uses in Table 1. The rate is based on ten stores surveyed during the early 1990's and 2000 ranging in size from 120,000 – 220,000 square feet with the average p.m. peak hour of adjacent traffic at 161,000 square feet.

DATA COLLECTION

In order to look further at this issue, driveway count data was collected at five large (approximately 200,000 square feet) stores from the same company that qualified under the free-standing discount superstore classification. Site selection and data collection at the study sites included:

- Sites were chosen that were stand alone locations and did not contain any other unrelated retail stores. Efforts were further made to select as few sites containing a related gas service station as possible (notes have been made I Table 2 where this occurred). All locations contained a related garden center. Square footages for the garden center, tire and lube and gas service station were not used in the calculations seen in Table 2.
- PM manual traffic counts were taken during the hours of 4 PM – 6 PM on two typical weekdays (July 2003 and October 2003). It was determined that the peak hour of adjacent traffic occurred between 4:30 and 5:30 p.m.
- Contact with local agencies was made to attain site plans and/or assessor information for store size.

TRAFFIC COUNT ANALYSIS

Data from the two collected days were averaged together and the p.m. peak hour trip generation rate was calculated, reference Table 2.

COMPARISON TO TRIP GENERATION DATA

Table 3 provides a side-by-side comparison of the trip generation rates provided in the ITE Trip Generation Manual and the average results obtained from the field studies.

CONCLUSIONS

The purpose of this study was to collect additional data from large discount superstores that are approximately 200,000 square feet in size. The study showed a significantly higher trip generation rate than that of the standard ITE free-standing discount superstore. Traffic engineers wishing to prepare a conservative traffic analysis may wish to adopt the higher trip generation rate indicated in this study of large free-standing discount stores that in the range of 200,000 square feet.

The data presented in this study should be added to the ITE's database of free-standing discount superstores, thereby broadening the database available for estimating the transportation impacts of modern discount superstores. The transportation community would benefit from additional studies of discount superstores to update the category further. It is critical in doing so that the characteristics of each store are documented, such as the presence of related gas stations, tire and lube departments and garden centers.

Table 1. ITE Trip Generation, 7th Edition, Volume 3		
	ITE Free-Standing Discount Superstore (Land Use Code 813)	ITE Shopping Center (Land Use Code 820)
Number of Studies	10	407
Average 1,000 Sq. Feet Gross Floor Area	161	379
Peak Hour of Adjacent Street Traffic, PM Peak	3.87	3.75

Table 2. Summary of driveway data collected

Number	Location	[illegible]	[illegible]	[illegible]
1	Oklahoma City, OK	199,361	1383	6.94
2	Edmond, OK(1)	198,556	1001	5.04
3	Moore, OK(2)	193,441	1361	7.04
4	Bedford, TX	198,441	869	4.38
5	Mesquite, TX	221,441	1239	5.60

(1) Site contains a related gas station but is not located within the parking lot of the store. The driveway connecting the store parking lot and service station was counted.
(2) Site contains a gas station that shares common entrances. The square footage of the service station was not included in the analysis.

Table 3. Comparison of average PM peak period traffic		
	ITE Free-Standing Discount Superstore (Land Use Code 813)	Field data
Number of Studies	10	5
Average 1,000 Sq. Feet Gross Floor Area	161	202.25
Peak Hour of Adjacent Street Traffic, PM Peak	3.87	5.80

Abstract:

In the past decade there has been an insurgence in the number of proposed free-standing discount superstores throughout the country. These stores have continued to gain in popularity because of their convenience, combining general retail merchandise, full service grocery departments, and other specialty shops such as pharmacies and photo processing at discount rates. The purpose of this study was to collect additional data from large discount superstores that are approximately 200,000 square feet in size. The study showed a significantly higher trip generation rate than that of the standard ITE free-standing discount superstore.

Keywords:

Discount superstores
Free-standing discount superstores
Trip generation rates
Land use 813
Shopping centers

STATE OF CALIFORNIA
FACSIMILE COVER
10-2A-0049 (NEW 10/92)

ATTENTION:	FROM:	
Mark Martin	Dan Brewer Department of Transportation 1976 East Charter Way Stockton, CA 95205	
UNIT/COMPANY: City of Stockton Community Development Department Planning Division 425 North El Dorado Street Stockton, CA 95202-1997	DATE: ~~12/[illegible]/05~~ 12/12/05	TOTAL PAGES (Including Cover Page) 4
	FAX # (Include Area Code) (209) 948-7194	ATSS FAX 8-423-7194
DISTRICT/CITY	PHONE # (& Area Code) (209) 948-7142	ATSS 8-423-7142
PHONE # (& Area Code) FAX # (& Area Code) (209) 937-8538 (209) 937-8893	ORIGINAL DISPOSITION: Destroy ☐ Return ☐ Call for Pickup ☐	

COMMENTS:

SJ-5-Post Mile 22.5
SCH # 2005012056(NOP)
Weston Ranch Towne Center

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

DEPARTMENT OF TRANSPORTATION
P.O. BOX 2048 STOCKTON, CA 95201
(1976 E. CHARTER WAY/1976 E. DR. MARTIN
LUTHER KING JR. BLVD. 95205)
TTY: California Relay Service (800) 735-2929
PHONE (209) 941-1921
FAX (209) 948-7194

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December 12, 2005

10-SJ-5-PM 22.7
SCH # 2005012056(NOP)
Weston Ranch Towne Center

Mark Martin
City of Stockton
Community Development Department
Planning Division
425 North El Dorado Street
Stockton, CA 95202-1997

Dear Mr. Martin:

The California Department of Transportation (Department) appreciates the opportunity to have reviewed the Revised Notice of Preparation for the proposed 710,000 square foot shopping center including 2 service stations to be located at the northwest corner of the I-5/French Camp Road interchange. Impacted facilities will include Interstate 5 (I-5), the I-5/Downing Avenue interchange, and the I-5/French Camp Road interchange. The Department has the following comments as provided for the Notice of Preparation (NOP) State Clearing House number 2005012056 on February 14, 2005:

- The Department will require a traffic impact study (TIS) to determine the cumulative effects of this project at build-out. As stated on page 22 of the NOP, the TIS needs to include the existing conditions of the French Camp Road interchange, as well as the City of Stockton improvements scheduled for construction in fiscal year 2006/2007 in which the Department is providing oversight.

- In-addition, the TIS analysis needs to include the conditions at the Manthey Road/Downing Avenue interchange and the I-5/Dowing Avenue interchange as the Downing Avenue interchange-provides regional access as stated on page 10 of the NOP. Requests by the Department to the City's Department of Community Development to include the analysis of the Downing Avenue interchange on February 11, 2005 and March 21, 2005 were not included in the Revision of the NOP.

- The TIS analysis should include the following:
  - Trip generation, distribution and assignment. Documentation should include source and methodology of the data that is presented.
  - Average daily traffic (ADT), AM and PM peak hour volumes on all significantly affected streets and highways, including freeway ramps and crossroads, and controlling intersections. Traffic volumes should be presented for existing and future conditions, the latter for a cumulative build and a no build scenario that includes all approved developments in the area. The coverage should include all traffic that would affect the facilities evaluated and should not be limited to projects under the jurisdiction of the lead agency.
  - Traffic impacts should be evaluated in terms of a level of service (LOS) analysis that is consistent with the most recent version of the Highway Capacity Manual (HCM), or by a uniform methodology which is consistent with the HCM.
  - Proposed mitigation should include highway improvements and modal alternates and any proposed funding mechanisms.
- The Department has determined that this project will contribute to cumulative impacts on I-5 main lanes as well as the I-5/Downing Avenue and I-5/French Camp Road interchanges. Therefore, the Department recommends the collection of impact fees on a "Fair Share" basis for improvements to these facilities.
- As indicated above, the Department is providing oversight for the locally funded reconstruction of the French Camp/Sperry Road interchange. This interchange project is in the project approval/environmental document (PA&ED) stage as indicated in the "Caltrans Status of Projects Central Region District 10." The expenditure authorization (EA) for this project is 0E490.
- The Department encourages contacting the Native American Heritage Commission 915 Capitol Mall, Room 364, Sacramento, California 95814, (916) 653-4082, (916) 657-5390 [FAX] for advice on consulting with Native Americans regarding any cultural concerns within the project area.

- An Encroachment Permit will be required for any work done within the Department's right of way. This work is subject to the California Environmental Quality Act. Therefore, additional biological, archaeological, or other environmental studies may be required as part of the encroachment permits application. A qualified professional must conduct any such studies undertaken to satisfy the Department's environmental review responsibilities. Ground disturbing activities to the site prior to completion and/or approval of required environmental documents may affect the Department's ability to issue a permit for the project. Furthermore, if engineering plans or drawings will be part of your permit application, they should be prepared in both metric and standard units.

If you have any questions or would like to discuss our comments in more detail, please contact Dan Brewer at (209) 948-7142 (e-mail: dan.brewer@dot.ca.gov) or me at (209) 941-1921.

Sincerely,

for

TOM DUMAS, Chief
Office of Intermodal Planning

c: SMorgan CA Office of Planning and Research

MEMORANDUM

DEC 01 2005

November 29, 2005

TO: James E. Glaser, Director, Community Development Department

ATTN: Mark Martin, Project Manager II

FROM: Mark W. Herder, Chief of Police

SUBJECT: **PUBLIC REVIEW OF THE REVISED NOTICE OF PREPARATION/INITIAL STUDY FOR THE WESTON RANCH TOWNE CENTER PROJECT (EIR5-04) STATE CLEARINGHOUSE NO. 2005012056**

The Police Department has reviewed the above-referenced document concerning the Weston Ranch Towne Center project; a development of large retail stores, in-line shops, retail pad stores, restaurants, fuel centers, and parking on approximately 60 acres bounded by Manthey Road on the east, vacant land zoned for residential use on the north, French Camp Road on the south, and existing and planned residential development on the west. The Police Department has no adverse comments concerning this project.

Wayne Hom for

MARK W. HERDER
CHIEF OF POLICE

MWH/BM/pkh

ENVIRONMENTAL HEALTH DEPARTMENT
SAN JOAQUIN COUNTY

Donna K. Heran, R.E.H.S.
Director
Laurie A. Cotulla, R.E.H.S.
Program Manager

304 East Weber Avenue, Third Floor
Stockton, California 95202-2708
Telephone: (209) 468-3420
Fax: (209) 464-0138
Website: www.sjgov.org/ehd/

Unit Supervisors
Carl Borgman, R.E.H.S.
Mike Huggins, R.E.H.S., R.D.I.
Douglas W. Wilson, R.E.H.S
Margaret Lagorio, R.E.H.S.
Robert McClellon, R.E.H.S.
Jeff Carruesco, R.E.H.S.

December 16, 2005

RECEIVED
CITY OF STOCKTON
DEC 16 2005
PERMIT CENTER
PLANNING DIVISION

Mark Martin, Project Manager II
City of Stockton
Community Development Department
Planning Division
425 N. El Dorado Street
Stockton, CA 95202-2310

RE: Public Review of the Revised Notice of Preparation/Initial Study
For the Weston Ranch Towne Center Project (EIR5-04);
State clearinghouse No. 2005012056

After reviewing the above referenced project, the San Joaquin County Environmental Health Department has determined that the following three agencies should be contacted regarding approval and/or permitting of asbestos removal/disposal:

1. The California Integrated Waste Management Board
2. The State of California Department of Toxic Substance Control
3. The San Joaquin Valley Air Pollution Control District

The existing homes are being served by onsite sewage disposal systems and individual wells for domestic and irrigation purposes. The Environmental Health Department recommends that as a part of developing these properties, the wells, septic systems, and structures be destroyed under permit and inspection with the Environmental Health Department.

If you have any questions or need further assistance, please contact Rodney Estrada, Lead Senior Registered Environmental Health Specialist, of my staff at (209) 468-0331.

Sincerely,

Mike Huggins, Supervising R.E.H.S., R.D.I.
Land Use, Liquid Waste, and Domestic Wells Programs

MH: cf

cc: Donna Heran, R.E.H.S., Director
Environmental Health Department

San Joaquin County
Environmental Health Department

304 E Weber Avenue
3rd Floor, Stockton, CA 95202
Phone: (209) 468-3420

RECEIVED
CITY OF STOCKTON
DEC 16 2005
PERMIT CENTER
PLANNING DIVISION

FAX #:
- [x] (209) 464-0138
- [ ] (209) 468-8392
- [ ] (209) 468-3433

FAX

Date: 12/16/2005 **Time:**

# of Pages (including this sheet): 2

To: Mark Martin, Project Manager II **FAX** (209) 937-8893

Of: City of Stockton, Community Development Department, Planning Division

From: Cheryl, SOA/Unit II Support Staff **Voice Phone #:** (209) 468-3423

Re: Revised Notice of Preparation/Initial Study for Weston Ranch Towne Center Project (EIR5-04)

- [x] **Urgent**
- [ ] **For Review**
- [ ] **Please Reply**
- [ ] **Please Recycle**

Comments:

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Appendix C
Urban Decay Analysis

ESA

Administrative Draft (Revised II)

URBAN DECAY ANALYSIS REPORT

For the Weston Ranch Towne Center Project
Environmental Impact Report

EIR No. 5-04

Prepared for:
City of Stockton
Community Development Department

October 2006

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URBAN DECAY ANALYSIS REPORT

Executive Summary

This technical report presents the data, analysis, and findings of the analysis of the potential for urban decay impacts within Stockton to result from the proposed Weston Ranch Towne Center retail development project (the project). This appendix provides the background analyses used in preparing the CEQA evaluation of urban decay presented in the Weston Ranch Towne Center Project Environmental Impact Report.

Project Description

The principal retail development planned to "anchor" the Weston Ranch Towne Center project is a superstore, such as a Wal-Mart Supercenter, and a warehouse club store, such as a Sam's Club. Superstores typically are larger versions of regular discount department stores (150,000 to 225,000 square feet) with full grocery sections. In addition, a couple of mid-sized specialty retail and several smaller in-line retail shops would be located contiguously. Several retail pad stores, restaurants, and service stations would also be developed on the site with sufficient parking.

Method

The key components of the urban decay analysis include a description of current local and regional retail industry conditions; an analysis of the expected retail sales impact of new retail development on existing retailers; an assessment of the area's residential and commercial real estate market; and an analysis of the potential for urban decay impacts within Stockton as a result of the proposed retail development project both directly and together with other planned projects. In addition, the analysis evaluates the City of Stockton's economic development programs and policies and the expected future growth in retail demand.

These analyses were performed to determine the magnitude of any future "sales shift" that could result from the proposed project that could in turn result in long-term property vacancies and an increase in urban decay conditions within the City of Stockton.

Urban Decay Analysis

The urban decay analysis consisted of several related investigations and assessments.

The inventory of existing retailers found that most of Stockton's retailers are clustered in north Stockton, with a very limited number serving the south and central Stockton areas despite the considerable residential populations living in those areas. The assessment also concluded that

most retailers are relatively well-established in the Stockton market with considerable new retail development beginning in the late 1990s. This retail expansion is continuing as several national retailers have added new stores or upgraded their facilities, thereby indicating confidence in and a commitment to the local retail market as result of the strong local housing and commercial real estate markets generate demand for new retail development.

Review of Stockton's economic development programs and projects identified a variety of current and recent programs and projects being actively pursued by the City. Combined with the increasing effectiveness of its code compliance efforts, these programs demonstrate both the City's commitment and its capabilities to address effectively current and any potential future urban decay impacts (given its budget constraints and other financial resources).

An analysis of current retail sales was conducted based on reported taxable sales and then adjusted to determine gross sales. Future retail sales, including sales generated by the proposed project and other probable retail developments were then projected.

A retail sales leakage analysis to evaluate Stockton's retail market performance compared the actual reported retail sales to the potential sales that residents would be expected to make, based on average shopper behavior. If the actual sales are greater than would be expected, this "sales surplus" suggests that the area is attracting people from outside to shop within the area and/or that the local residents have a higher than average amount of per capita retail spending. The leakage analysis concluded that Stockton is a "sales attractor" for all retail categories as it attracts considerable sales from non-Stockton residents and/or greater than average spending from its residents. This result reflects Stockton's current position as a major retail hub for the region. While this might suggest that there would therefore be limited potential for new retailers to from current residents, several of the commercial retail estate specialists interviewed suggested that there may yet be considerable sales leakage from the under-retail parts of Central and South Stockton. Nonetheless, for the purposes of the urban decay analysis, it has been conservatively assumed that Stockton's retail sector is saturated at the 2005 baseline conditions to determine the project's maximum likely retail impacts.

The proposed Wal-Mart Supercenter and Sam's Club are the primary focus of the urban decay analysis because they would be the project's "anchor" tenants that would either: (1) draw consumers away from other nearby competing retailers; or (2) attract/serve new consumers to the area. Nonetheless, the additional contributions of the proposed project's other specialty retailers were also factored into the urban decay analysis. Total future retail sales for the project at its buildout in 2008 are estimated to be approximately $268 million in 2008 dollars (see **Table 4-4**). This retail sales projection was based on national average sales-per-foot for Wal-Mart, Sam's Club, and average specialty retailers partially adjusted to account for the Stockton region's relatively lower income levels.

The market analysis determined that the proposed project's primary trade will consist of the City of Stockton and nearby unincorporated areas within a five-mile radius of the site (see **Figure 4-2**). The project's trade area was determined based on an analyses of previous market studies, interviews with local commercial real estate experts as well as considerations of the general and

site-specific market considerations and ESA staff's professional judgment. Within this area, 75% of the project's future sales are expected to be generated (i.e. approximately $201 million). Compared to Stockton's 2005 baseline conditions, the project's new retail sales could result in up to a 8.7% growth in local retail sales levels.

The expected future annual growth in new retail demand from future Stockton population growth is estimated to be approximately $83.6 million per year of which $57.5 million would be for project-competing goods which may be expected to absorb additional new retail sales in the area. The new retail demand growth was used to determine the project's potential future "sales shift" impacts on existing retailers. While numerous factors may be expected to reduce the likely actual "sales shift" impact, if no major new retail is competed before the project's completion, the new retail demand growth could absorb all but $57.1 million of Weston Ranch's estimate future sales. This offsetting growth in retail demand suggests that the project's retail impacts will be short-term in duration and of a type and magnitude within the range typical for retail sector business cycles.

The key issue for determining the project's potential for contributing to a substantial increase in local urban decay conditions depends on the likely consequences of any retail impacts on the competing retailers and their vacated properties. Based on the sales shift analysis is concluded that while the maximum sales shift impact could result in some possible store closures from the increase retail competition. However, the research and real estate analysis conducted for this report suggests that there is strong demand for commercial retail properties in Stockton. Therefore, even if the project has a major sales shift impact on the Stockton retailers (either due to retail market saturation or the project's inability to capture any significant south and central Stockton retail sales leakage) and if this impact results in some retailers going out of business, it may be expected that any vacated properties will likely be re-tenanted or redeveloped. Given Stockton's recent and foreseeable strong commercial real estate market, it is considered unlikely that property owners would generally permit their properties to deteriorate so as to result in urban decay impacts. This impact is considered less than significant and no mitigation is required.

The important and direct role that the City programs and other non-project related factors can play in preventing and/or ameliorating urban decay conditions were also taken in account in this analysis.

In addition to the potential direct impacts of the proposed project, this analysis also considered whether cumulative urban decay impacts could result from the proposed project, together with other past, present and probable future projects. The year 2011 has been used for the cumulative impact analysis because all reasonably foreseeable retail development projects are expected to be fully constructed and operational by that date. Future development beyond 2011 is currently unknown and the uncertainty inherent in economic forecasting increases with the forecast period horizon. The geographic area for the cumulative impact analysis is City of Stockton, since it is the primary area of concern for any incidence of potential future urban decay impacts. According to the City of Stockton Planning Department, several major new retail developments that would compete with the Weston Ranch retail development are considered probable:

- **The Lodi Wal-Mart Supercenter Relocation.** This planned shopping center development would construct 340,000 sq. ft. of new project competing commercial retail.

- **Spanos Park West (Phase 2)**. A new Wal-Mart Supercenter and Sam's Club is planned for construction next to the recently completed Spanos Park West (Phase 1) shopping center. If approved, 512,486 sq. ft. of new retail would potentially compete with Weston Ranch.

- **Cannery Park.** A 450-acre mixed-use development project is proposed for the Cannery Park property in northeast Stockton. A maximum of approximately 500,000 square feet of potential project competing new retail is projected (Stockton, 2006).

- **Origone Ranch.** Situated in northeast Stockton due to the lack of information on the Origone Ranch it has been assumed that its future commercial development would be of a comparable as that planned for Cannery Park.

These potential new retail developments represent the likely major new retail developments that could contribute to the project's future cumulative impact on Stockton. Projected sales for these four future retail developments are shown in **Table 5-1.** If all completed before 2011, together could add up to $633.5 million in project competing sales of which $538.5 million would be expected to be Stockton-originating project competing sales (i.e. using a reduced market area adjustment of 85% as a conservative assumption**)**. Together with these other future major retail developments considered probable the total potential cumulative sales impact of the project could be up to $739.4 million (i.e. $538.5 million + $200.9 million) in future Stockton-originating sales which would represent approximately a 32% increase in current (2005) baseline retail sector conditions (see Table 5-3).

In the case of the cumulative impact analysis, the most meaningful indication of the likely effect on Stockton's existing businesses is the degree of imbalance between future retail sales and demand. As shown in **Table 5-4,** the potential sales shift in 2011 (i.e. after all currently foreseen major future retail developments are assumed to have been completed and fully operational) would be up to $394.1 million – representing a 14.8% increase in the 2011 Stockton retail sector.

The retail sales shift analysis suggests that over the longer term, the cumulative impacts will likely decrease as a result of future retail demand growth. However, given the magnitude of the projected imbalance in 2011 between retail supply and demand, the cumulative sales impacts of the proposed project together with other probable retail development could result in closures of existing businesses. Although the real estate market in Stockton is strong and will likely remain so, it is uncertain whether demand for retail space would be sufficient to ensure re-tenanting (by retail or other uses) or redevelopment of all or most properties vacated by business closures due to the cumulative effects of the proposed project and other future retail centers.

However, vacant properties, even properties that are vacant long-term, do not, in and of themselves, necessarily result in urban decay impacts. If adequately managed and maintained, underused or underdeveloped properties may persist in urban areas without contributing to urban decay. In general, urban decay is less likely to occur in areas, like Stockton, that have redevelopment and other programs to prevent it and that actively enforce compliance with building and zoning codes. Typical urban decay indicators such as abandoned and deteriorating properties, litter and graffiti, and unauthorized property uses can be avoided if property owners adequately maintain

their properties. Such urban decay impacts are also more likely to occur under conditions in which property values are not appreciating and owners see such property management costs as unrecoverable and/or unnecessary expenses. These conditions do not occur in Stockton and are not expected to do so in the foreseeable future.

As in the case of the project's direct effects, numerous non-project related factors and analysis assumptions have been identified that would tend to limit business closures and long-term (see Section 5). These factors include: actual level of Stockton's current retail market saturation; competing retailers' profitability and capabilities to respond to new competition; level of future real estate demand; role of governmental agencies in economic development and prevention of blight. On-going redevelopment and urban renewal programs in Stockton and the City's assertive code and ordinance enforcement activities would further reduce the potential for an increase in blight.

Given the major contributory role that these and other non-project factors potentially would have both in determining any future retail impacts to existing retailers and on Stockton's urban decay conditions it is concluded that the project's cumulative impacts on existing retailers would not be expected to result in business closures and related long term property vacancies that would lead to urban decay impacts of a sufficient magnitude and/or prevalence to result in a substantial increase in Stockton's urban decay conditions.

SECTION 1
Introduction

Purpose and Use of This Report

This report presents key data, analysis, and findings of the urban decay analysis for the proposed Weston Ranch Towne Center Project (project) retail development and was used in the preparation of the environmental impact report (EIR) (Section 4.4, Urban Decay) for the project.

Report Organization

This urban decay analysis report is organized into six sections as discussed below.

- **Section 1, Introduction.** This section provides a brief introduction into this report's purpose and organization.
- **Section 2, Project Description.** This section provides a brief description of the proposed project for which this urban decay analysis report was prepared.
- **Section 3, Setting.** This section provides the setting information used when conducting the analysis.
- **Section 4, Urban Decay Analysis.** This section provides a detailed analysis regarding the project's potential for causing urban decay and other surrounding retail/real estate factors.
- **Section 5, Cumulative Impact Analysis.** This section provides an analysis of the future cumulative impacts of the potential additional future major new retail development in Stockton.
- **Section 6, References.** This section provides a complete list of references used when preparing this report.

Report Preparation

This report has been prepared by consulting staff from ESA under contract to Vestar Development Company, the project proponent. The draft report has been prepared for the City of Stockton (City) and used as the basis for Section 4.4, Urban Decay, in the EIR.

SECTION 2
Project Description

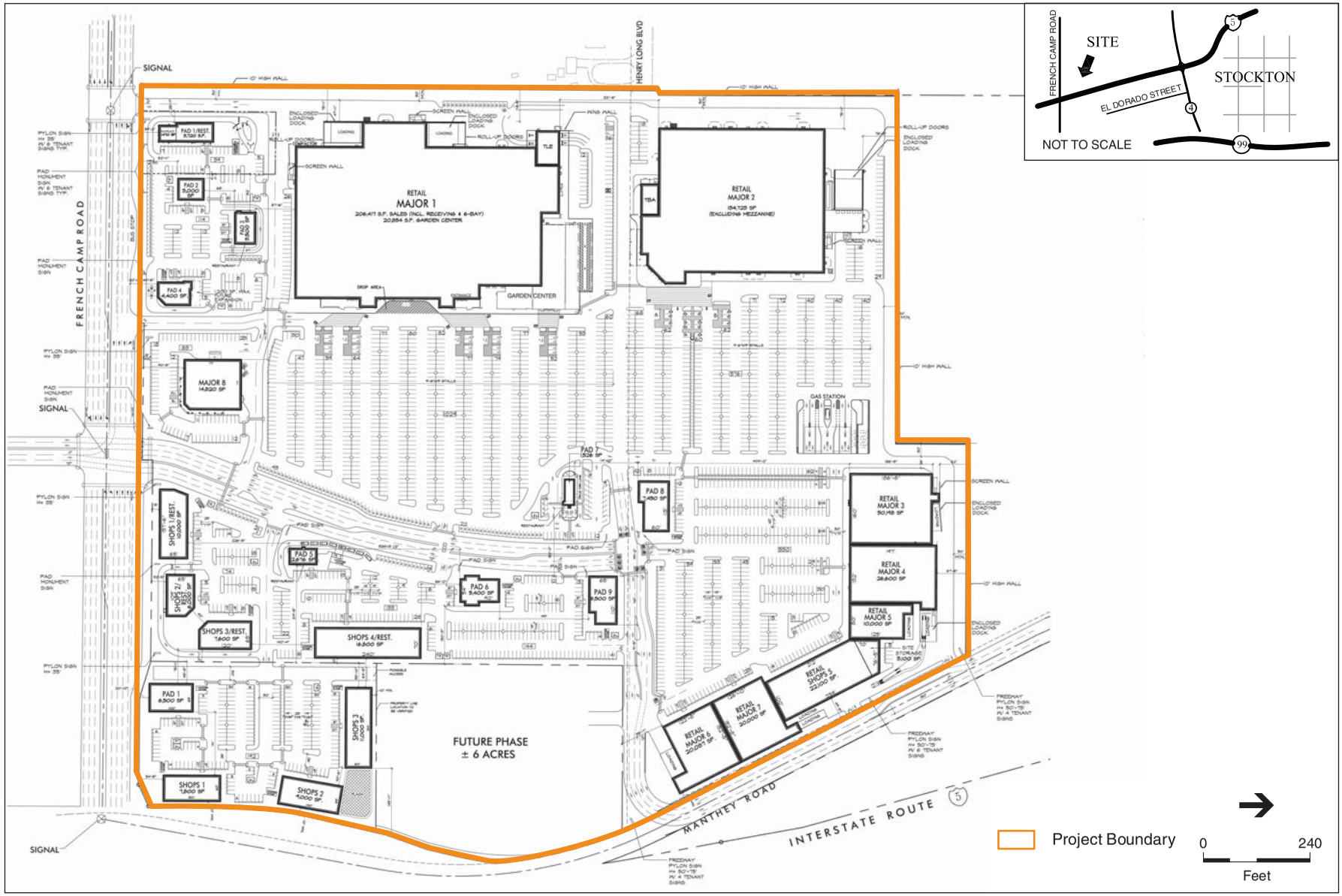
Location

The proposed project is located in Stockton, north of French Camp Road, west of I-5 at the northwest quadrant of the I-5/French Camp Road interchange, and east of McDougald Boulevard and the Weston Ranch residential subdivision (Figure 2-1). The Weston Ranch residential subdivision is north of the project site and agricultural land is adjacent to the southwest and southern portions of the project site. Regional access to the project site is provided by I-5 (French Camp Road and Downing Avenue off-ramps). Local project access is provided by French Camp Road on the south and Manthey Road via Downing Avenue and William Moss Boulevard on the north.

Objectives

The objectives of the project include economic goals that may have an effect on urban decay, as follows:

- Providing needed regional commercial and retail space in south Stockton.
- Augmenting the City's available commercial space for continuing growth demands.
- Providing job opportunities for members of Stockton's work force.
- Providing an expanded economic base for the City by generating substantial property and sales tax and fee revenue and by increasing the proportion of local income invested and spent locally.
- Provide retail and commercial services at a currently vacant location that is convenient and where economic viability can be sustained.
- Providing large-scale retail activities that will complement existing smaller scale retail activities located throughout the City.



SOURCE: Nadel Architects, Inc., 2006 ; and ESA, 2006

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Figure 2-1
Site Plan

Description

The project would develop the currently vacant project site (Table 2-1) with a regional shopping center including large-scale retail stores; in-line shops (located contiguously between large-scale retail stores) retail pad stores; restaurants (including fast food restaurants and traditional restaurants); service stations; and parking. The principal retail stores planned to "anchor" the project include a Wal-Mart Supercenter (a large-scale discount department store with a large grocery department) and a Sam's Club (a warehouse-style retail club store). Other smaller retail stores may include clothing stores, home furnishings and domestic supplies, pet supplies, electronics, and other types of retail sales, although specific prospective tenants have not been determined. Construction of the project is projected to be complete in 2008.

TABLE 2-1
PROPOSED LAND USES

Proposed Land Use	Proposed Maximum Space Use (Square Feet)
Large-Scale Retail	500,000
In-Line Shops	100,000
Retail Pads, including two fuel stations	60,000
Restaurants	50,000
Total	**710,000**

The project would also include the installation of all necessary infrastructures to serve the development. It is anticipated that new (proposed) adjoining streets, existing streets within the project site, realigned streets, and utilities will be improved in conjunction with the development of the project site. These infrastructure improvements are expected to be made conditions of approval by the City's Department of Public Works and included in the Development Agreement.

Parking will be provided in accordance with the requirements described in section 16-345.040 of the Development Code and will include a minimum of 2,000 parking spaces for 400,000 square feet of building space plus 1 additional parking space for each additional 250 square feet of office space. A maximum development of 710,000 square feet (as proposed) will therefore include a minimum of 3,240 parking spaces.

The project applicant and representative are listed below.

Applicant:

Vestar Development Company
7575 Carson Boulevard
Long Beach, CA 90808

Representative:

Jeffrey M. Axtell
Vestar Development Company
7575 Carson Boulevard
Long Beach, CA 90808

SECTION 3
Existing Conditions

Background

According to the California Environmental Quality Act (CEQA) Guidelines (15358 [b]), impacts to be analyzed in an environmental impact report (EIR) must be "related to physical changes" in the environment. While the CEQA Guidelines (15131 [a]) do not directly require an analysis of a project's social or economic effects because such impacts are not in and of themselves considered significant effects on the environment, the guidelines also state:

> An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes caused in turn by economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.

Rather, a determination that a significant urban decay impact is likely to result from a proposed project relies upon a showing that the following sequence of events is likely to occur:

- The project would introduce new retail competition that would cause existing retailers to go out of business.
- The failed retailers' vacated properties would not be re-tenanted (or otherwise reused) due to insufficient real estate demand.
- These untenanted properties would be vacant for prolonged periods of time and would be abandoned or otherwise permitted to deteriorate significantly by their owners.

Urban Decay Analysis Approach

Since the project is likely to compete with a number of existing businesses within Stockton, ESA performed an urban decay impact analysis for the project. Particular attention was devoted to assessing the extent of the contributory effect associated with the project and other proposed retail development on local urban decay.

The analysis presented in this chapter of the EIR:

- Evaluates the expected economic effects of the project on Stockton's retail businesses.
- Considers the extent to which these effects would be expected to result in changes in the extent and severity of urban decay in Stockton.

The project would provide additional retail competition with existing retail businesses within Stockton and in the general Stockton area. Depending on the nature of this new competition and the retail market at the time of project completion, the project could cause the closure of businesses. If insufficient retail demand exists for the vacated properties to be re-tenanted, these business closures could result in long-term or permanent vacancies, which could, in turn, contribute to, or be the cause of, urban decay within Stockton. A number of factors in addition to changes in retail sales influence changes in levels of urban decay and are therefore considered in this analysis. These factors include property value trends, demographic changes, and governmental programs and actions aimed at ameliorating or preventing urban decay.

Method

The analysis presented in this Urban Decay Analysis is based upon detailed assessment of economic factors relevant to urban decay. The following tasks were conducted as part of the detailed assessment:

- Compilation of a comprehensive inventory and assessment of the major local retail businesses and shopping centers to identify the competing retailers that could potentially be most impacted by the project *(see: Existing Competing Retailers and Shopping Centers).*
- Analysis of Stockton's current retail sector and demand conditions *(see: Current Retail Sales in Stockton, Retail Leakage Analysis, Retail Demand Trends)*.
- Identification of Stockton's current economic development policies and programs for urban renewal *(see: Current Redevelopment Policies and Projects).*
- "Leakage" analysis assessing the inflows and outflows of consumer retail spending to and from the Stockton economy *(see: Retail Leakage Analysis)*.
- Analysis of the current commercial and residential real estate markets in the Stockton region (*see: Real Estate Analysis)*.
- Estimation of the project's future sales by retail category *(see: Retail Sales for the Project)*.
- Projection of future sales by potential/likely future new Stockton retailers by retail category *(see: Sales by Potential Future Stockton Retail Developments).*
- Market analysis to identify the project's expected market area *(see: Market Analysis)*.
- Estimation of the average annual expected growth in Stockton's future retail demand *(see: Future Retail Demand Growth)*.
- Projection of potential "sales shift" impacts on existing retailers both from the project and from potential new Stockton retailers, in order to evaluate the likelihood of project-related business closures *(see: Potential Sales Shift Impacts to Existing Retailers)*.
- Real estate analysis to evaluate the potential for re-tenanting of vacated properties and the likelihood of project-related long-term building vacancies and related urban decay impacts *(see: Real Estate Analysis)*.

Regional Context

The existing conditions analysis identifies the current retail sector conditions to identify and understand the baseline conditions for the subsequent impact analysis. In addition to evaluating the Stockton retail sector and major potential project competing retailers, the section also identifies Stockton's economic development policies and its program for fostering urban renewal within Stockton.

Project Vicinity

The Weston Ranch residential community lies to the west and north of the project site (see Figure 3-1). The community consists primarily of a recent major residential development. These homes are in good condition and mostly house middle-income homeowners, many of whom have moved to the area recently. Interstate 5 runs directly to the east of the project site. The good visibility of the site from the highway would be beneficial for the site's proposed future retail development. The existing interstate interchange would be significantly improved and upgraded to provide better site access.

Directly east and south of the project site, most of the nearby developed land uses are industrial. The Stockton General Hospital is located south of the project site along Interstate 5. For a few miles beyond the hospital, most of the land is farmland. At the outskirts of Lathrop, the land uses change to mixed commercial, industrial, and some residential development.

Northward toward Stockton's city center, increasingly older residential neighborhoods emerge. Most of these residential areas are lower-income neighborhoods and are predominantly Latino in ethnicity. Although some sections of the area are in better condition than others and few properties are vacant, many of the homes are in relatively poor condition. El Dorado Drive, a major thoroughfare extending to downtown Stockton, is lined with businesses. The project area also has several existing vacant and very run-down buildings and businesses. Most of the local retail and other businesses in the area generally appear in relatively poor condition and are poorly maintained.

Existing Competing Retailers and Shopping Centers

Approach

ESA conducted an extensive inventory and site assessments of the retailers and shopping centers currently operating in Stockton and the neighboring cities of Manteca, Tracy, Lodi, and Lathrop to evaluate general retail conditions for Stockton and south San Joaquin County.[1] The inventory included background research, data collection, and site visits to most of the principal retailers and shopping centers. In addition, key contacts were identified and, when possible, interviewed to

[1] An initial assessment of the greater Stockton region was performed to understand the Stockton retail sector's broader context.

gather additional information on the region's retail market. However, most of this information is qualitative in nature. Some financial information was obtained from Info-USA on store sales, although the data may under-report actual sales due to survey response biases and data collection approaches. Retailers were selected, based on their reported Standard Industrial Classification (SIC) codes and operations.[2,3] The retailers selected for analysis were those expected to be in direct competition with the Weston Ranch project due to similarities in goods and customer base. Several visits were also made to the project site, its vicinity, and the major retail areas within Stockton, Manteca, Lodi, and Tracy. The purpose of these visits was to identify and evaluate the locations to determine their likely future interrelationships with the proposed project. In addition to viewing the principal shopping centers, most of the principal retailers were also inspected to qualitatively evaluate their condition, operations, product selection, and clientele. The purpose of these assessments was to determine the stores expected to be most competitively affected by the project and to evaluate the ability of these businesses to absorb and respond to additional retail competition. The assessment findings are presented below.

Major Stockton Area Retailers

The database search identified 139 businesses that met the initial selection criteria. The Info-USA database reported each store's address, contact information, number of employees, annual sales, and the first year that each store had been included in their database. The data was reviewed to identify the major retailers expected to be potentially affected by the proposed retail development. As discussed in the market analysis later in this report, most retailers in Lodi and the outlying areas of San Joaquin County distant from the project site were excluded since these businesses are outside the Weston Ranch retail development's likely primary market area and are more likely to be served by other major retail areas such as the northern Stockton retail areas.

Efforts were made to verify the sales data and obtain additional financial information from the individual stores, but few managers would discuss their store's general performance, operations, or the likely impact of new retail development in the Stockton retail market. As a result of limited availability of information, it is very difficult to quantify retailers' current financial situation.

The analysis concluded that most of the retail stores in the Stockton region are relatively well-established in the market. Numerous major large-scale discount retailers have been operating in Stockton and the region for many years. Furthermore, during the last several years, several national retailers have added new stores or upgraded their facilities, thereby indicating confidence in and a commitment to the local retail market. **Tables 3-1** and **3-2** identify most of the major general department store retailers, groceries, and drugstores in the Stockton area expected to compete with the proposed project. **Figures 3-2** to **3-4** show the major competing retailers' locations. As the figures indicate, most of Stockton's retailers are clustered in north Stockton, with a very limited number serving the south and central Stockton areas despite the considerable residential populations living in those areas.

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2 SIC Codes for General Merchandise Stores (53), Food Stores (54), Apparel & Accessory Stores (56) and Miscellaneous Retail (59) were searched.

3 Initial data was collected for all such business with 10 or more employees

SOURCE: City of Stockton Community Development Department Planning Division, 2002; and ESA, 2006

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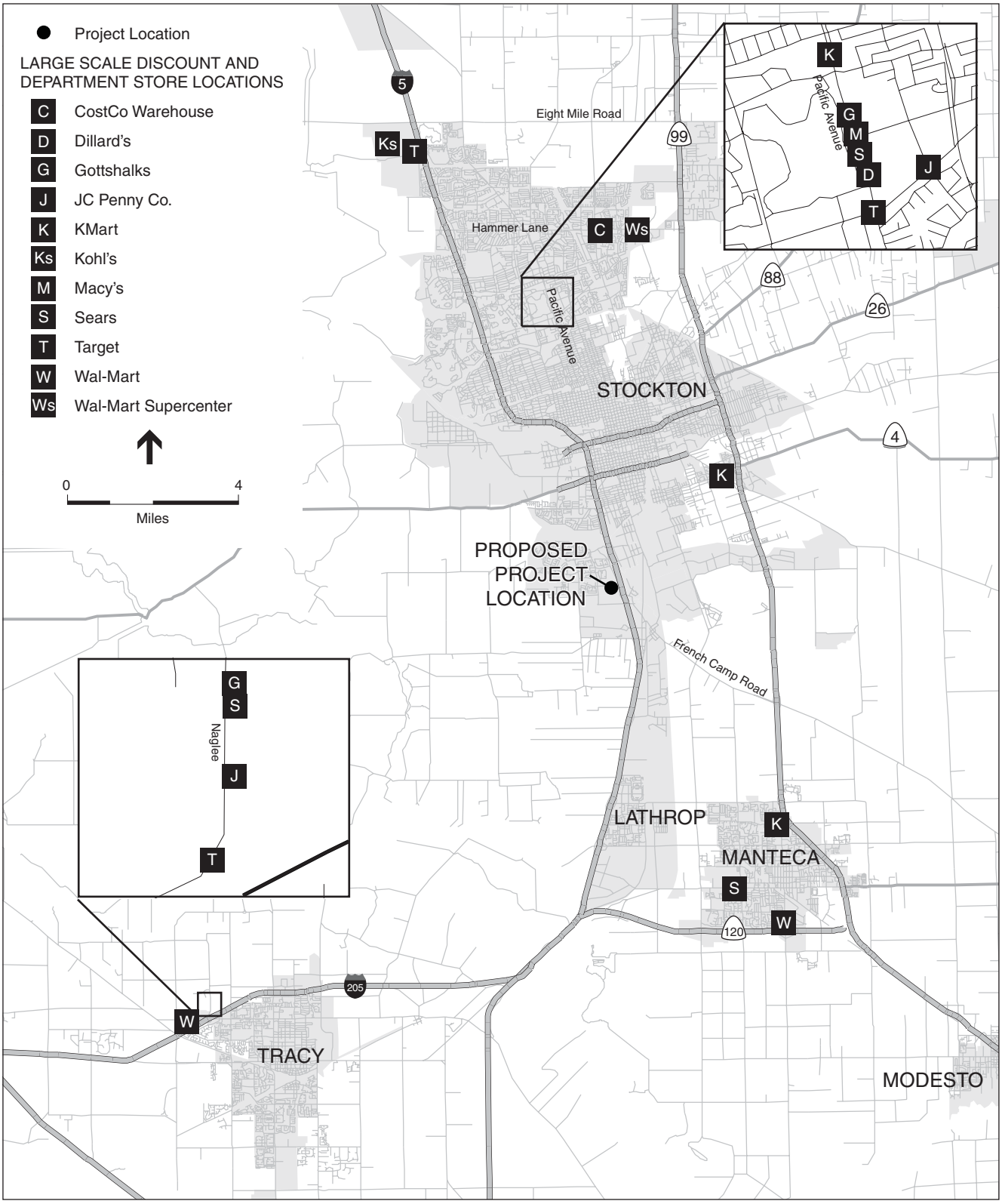
Figure 3-1
Project Site



SOURCE: InfoUSA, 2005; MapQuest, 2005; and ESA, 2006

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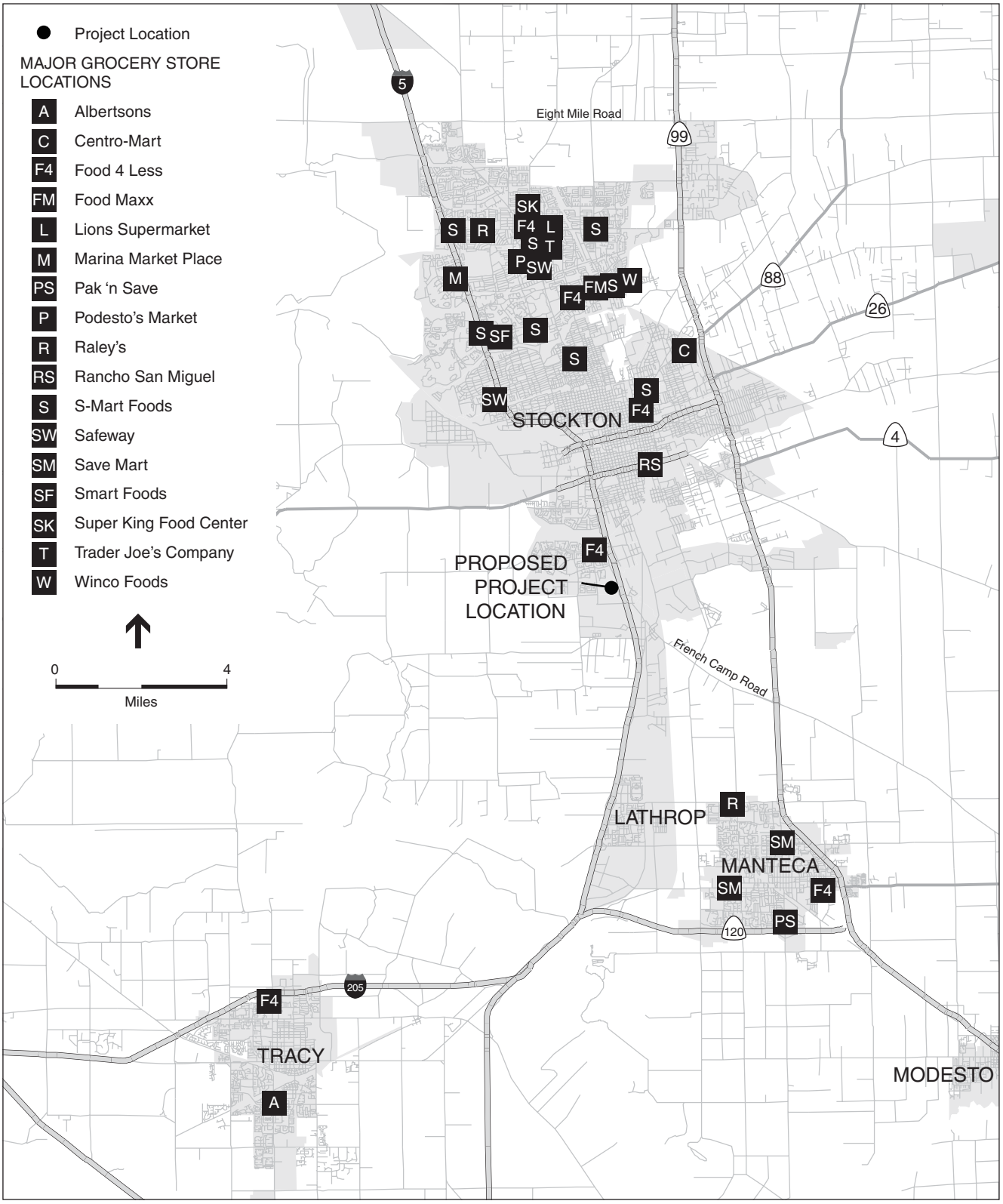
Figure 3-2

Major Large Scale Discount and Department Store Retailers Operating in the Stockton Region (2005)



SOURCE: InfoUSA, 2005; MapQuest, 2005; and ESA, 2006

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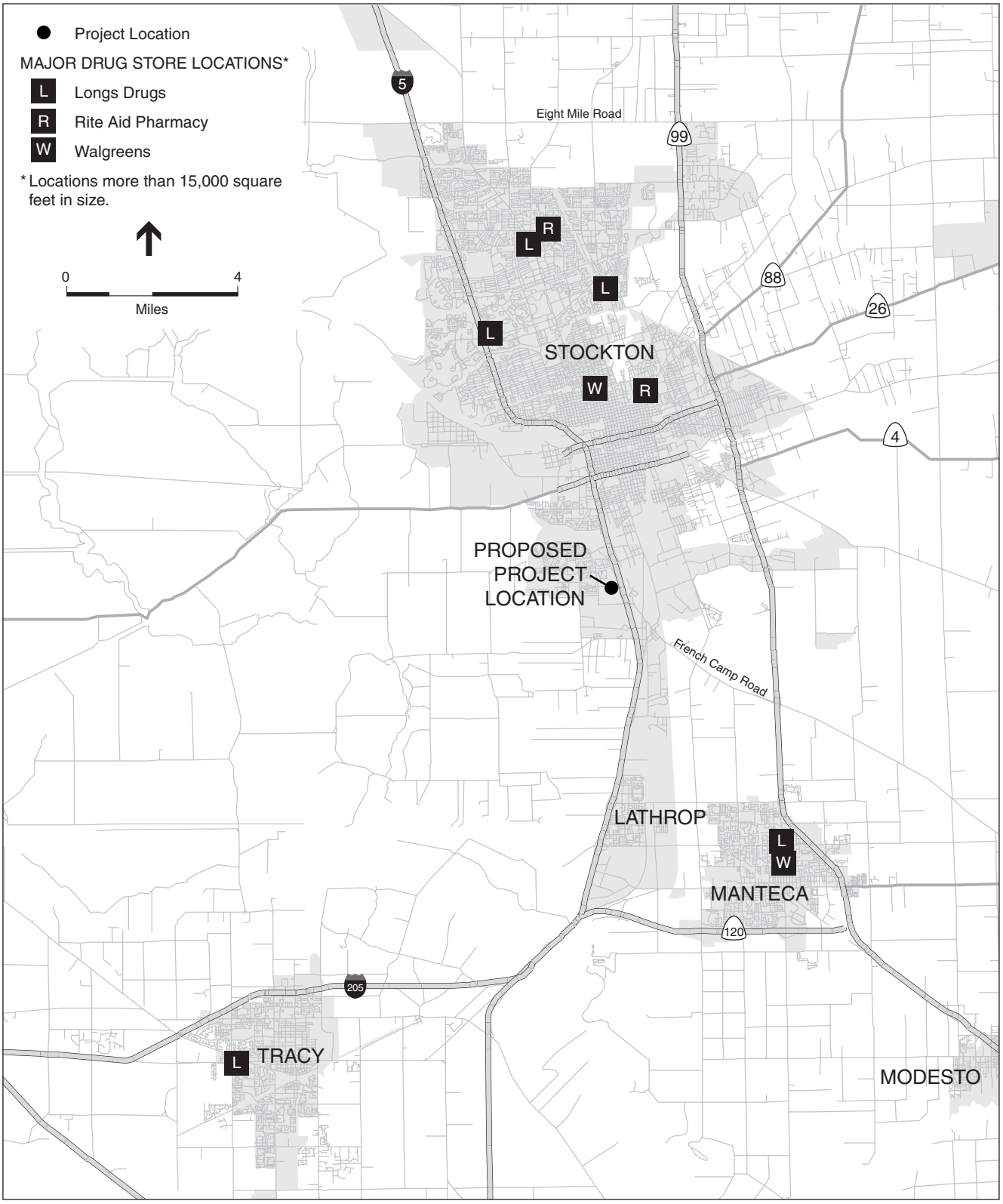
Figure 3-3
Major Grocery Stores
Operating in the Stockton Region (2005)



SOURCE: InfoUSA, 2005; MapQuest, 2005; and ESA, 2006

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Figure 3-4
Major Drugstore Retailers Operating in the Stockton Region (2005)

The City of Stockton was contacted in order to obtain information on the square footage estimates for the major retailers within Stockton and thus develop estimates of sales per square foot for the major retailers. The retailer list was cross-verified for selected retailers that were either missing from the Info-USA database or that appeared to have inaccurate or incomplete data. ESA contacted individual store managers and reviewed public financial reports to obtain the best available data for these retailers. The primary retailers expected to experience the majority of the project-related retail impact will be major general merchandise department store retailers (i.e., those other retailers most similar to Wal-Mart and Sam's Club), major supermarkets, and drugstores. Therefore ESA did not include smaller grocery stores and drugstores (with less than 15,000 square feet) in the inventory of competing retailers (see **Tables 3-1** and **3-2)**.

Additional information was also collected during the site assessments on most of the principal retailers operating in Stockton during March 2005 to qualitatively evaluate their condition, operations, product selection, and clientele. The purpose of these assessments was to determine which stores would be expected to be most competitively affected by the project and to evaluate the ability of these businesses to absorb and respond to additional retail competition.

Specific Retailers

The following section provides an assessment of the general department store retailers with multiple existing stores in the Stockton region expected to potentially be primary competitors to the proposed project. The findings and observations presented below identify the key aspects of each retailer's general business strategy and operations (including typical products and services, clientele, etc.) that define them. This information was collected to aid the evaluation of the nature and extent of these retailers' expected competitiveness with the project.

Target

Target is a national large-scale discount retailer that competes nationally with Wal-Mart. Target offers a selection of goods and products similar to those in a regular Wal-Mart store. However, Target does not have the extensive grocery sales offered by Wal-Mart's Supercenter stores. While providing similar shopping opportunities, Target's customer base has a greater proportion of middle-income and younger shoppers. Target stores are large warehouse facilities that are mostly new and well operated. Target stores generally do not operate 24 hours and are closed on major holidays.

K Mart (on E. Mariposa Road)

This K-Mart is in poor condition and was generally understocked with a more limited than usual selection of goods. The building and its parking area are old and poorly maintained. The store's site is relatively isolated from other retail businesses except a few neighboring stores at the Mariposa intersection with Framington and 8th Streets. All these stores (Don Juan Foods, El Dorado Drugs, and Big Value) are in poor condition with limited stock. There were numerous vacant and blighted neighboring properties.

TABLE 3-1
MAJOR DEPARTMENT STORE RETAILERS IN THE GREATER STOCKTON AREA (2004)

Store Name	Address	First Year of Business[a]	Number of Employees	Annual Sales[b]	Square Footage
Costco Warehouse	1616 E. Hammer Lane, Stockton	2002	276	$44,712,000	138,905
Dillard's	4950 Pacific Avenue, Stockton	1998	200	$32,400,000	na
Gottschalk's	5354 Pacific Avenue, Stockton	1988	93	$15,066,000	81,400
JC Penney	4915 Claremont Avenue, Stockton	1991	150	$24,300,000	96,000
Kmart	255 Northgate Drive, Manteca	2003	90	$14,580,000	86,000
Kmart	2180 E. Mariposa Rd, Stockton	1990	97	$15,714,000	84,000
Kmart	5757 Pacific Avenue, Stockton	1990	100	$16,200,000	71,000
Kohl's	10850 Trinity Parkway, Stockton	2004	na	na	90,000
Macy's	5242 Pacific Avenue, Stockton	na	na	na	166,500
Sears	1305 W. Yosemite Ave, Manteca	1997	10	$1,620,000	na
Sears	5110 Pacific Ave, Stockton	2000	70	$11,340,000	89,300
Target	4707 Pacific Avenue, Stockton	1988	150	$24,300,000	102,800
Target	10424 Trinity Parkway, Stockton	2004	na	na	125,000
Wal-Mart[c]	3702 E. Hammer Lane, Stockton	1991	401	$64,962,000	125,000
Wal-Mart	1205 S. Main Street, Manteca	1992	320	$51,840,000	119,704
Wal-Mart Supercenter[d]	3223 E. Hammer Lane, Stockton	2004	480	$7,776,000	207,540
Total - All Major Department Stores			2,437005	$324,810,000	1,493,149

[a] As recorded by InfoUSA; stores may have been operating before.
[b] As estimated by Info-USA; actual annual sales likely higher.
[c] This store closed when the nearby Supercenter opened in 2004.
[c] The reported sales are not for a full year of operation.

SOURCES: ESA, Info-USA, City of Stockton.

TABLE 3-2
MAJOR GROCERY STORES AND DRUGSTORES IN THE GREATER STOCKTON AREA (2004)

Grocery Store	Street Address	City	First Year of Business[a]	Number of Employees	Annual Sales[b]	Square Footage
Centro-Mart	2150 W Alpine Ave	Stockton	1984	50	$7,700,000	17,000
Centro-Mart	2907 Waterloo Rd	Stockton	2000	28	$5,096,000	21,600
Centro-Mart	4232 E Main St	Stockton	1984	27	$4,914,000	16,800
Food 4 Less	131 Spreckles Ave	Manteca	2000	75	$13,650,000	65,000
Food 4 Less	255 E March Ln	Stockton	2001	79	$14,378,000	48,400
Food 4 Less	3434 Manthey Rd	Stockton	2001	79	$14,378,000	58,810
Food 4 Less	678 N Wilson Way	Stockton	2001	125	$22,750,000	53,160
Food 4 Less	8014 Lower Sacramento Rd	Stockton	1995	164	$45,100,000	64,525
Food Maxx	1189 E March Ln	Stockton	1999	100	$18,200,000	52,760
Grocery Outlet	909 W March Ln	Stockton	2002	19	$3,458,000	15,420
Lions Supermarket	7924 N El Dorado St	Stockton	1995	15	$2,730,000	23,200
Marina Market Place	3201 W Benjamin Holt Dr.	Stockton	1996	93	$16,926,000	28,700
New Grand Save Market	2318 S.Airport Way	Stockton	2000	Na	na	16,600
Pak 'n Save Foods	1187 S Main St	Manteca	2000	100	$18,200,000	50,000
Podesto's Market	104 Lincoln Ctr	Stockton	1985	77	$14,014,000	20,000
Raley's	2323 W Hammer Ln	Stockton	1999	125	$22,750,000	61,797
Raley's	1280 W Lathrop Rd	Manteca	1991	120	$21,840,000	50,000
Rancho San Miguel	1230 E. Charter Way	Stockton	na	Na	na	40,972
Safeway	2808 Country Club Blvd	Stockton	1987	89	$16,198,000	na
Safeway	6445 Pacific Ave	Stockton	na	Na	na	46,500
Save Mart	1172 N Main St	Manteca	1988	70	$3,920,000	na
Save Mart	1431 W Yosemite Ave	Manteca	1989	14	$2,548,000	na
S-Mart Foods	3233 Hammer Ln	Stockton	1989	Na	na	44,100
S-Mart Foods	1616 E. March Ln	Stockton	1997	Na	na	49,690
S-Mart Foods	3215 Pacific Ave	Stockton	1997	Na	na	22,900
S-Mart Foods	4555 N. Pershing Ave	Stockton	2004	Na	na	44,000
S-Mart Foods	8004 N. West Lane	Stockton	2004	85	na	43,800
S-Mart Foods	4725 Quail Lakes Dr	Stockton	1999	50	$9,150,000	43,000
Super King Food Center	6045 N. El Dorado St	Stockton	na	Na	na	19,500
Super King Food Center	8626 Lower Sacramento Rd	Stockton	na	Na	na	28,000
Trader Joe's Co	6535 Pacific Ave	Stockton	1994	33	$6,006,000	55,275
Winco Foods	5110 Montauban Ave	Stockton	2002	140	$25,480,000	95,838
Total - All Grocery Stores				1,792	$312,116,000	1,213,847
DRUG STORES						
Longs Drug	1190 N Main St	Manteca	1984	45	$8,235,000	25,818
Longs Drug	5070 West Ln	Stockton	1990	25	$4,575,000	27,950
Longs Drug	7464 Pacific Ave	Stockton	na	48	na	32,700
Longs Drug	4713 Quail Lakes	Stockton	na	58	na	26,900
Longs Drug	1885 W 11th St	Tracy	1986	35	$6,405,000	23,412
Rite Aid Pharmacy	1050 N Wilson Way	Stockton	1986	35	$6,405,000	33,500
Rite Aid Pharmacy	7932 N El Dorado St	Stockton	1984	20	$3,660,000	23,500
Walgreens	560 N Main St	Manteca	1992	22	$4,026,000	14,000
Walgreens	15 W Harding Way	Stockton	1993	60	$10,980,000	17,500
Total - All Major Drugstores				348	$44,286,000	225,280

[a] As recorded by Info-USA; stores may have been operating before.
[b] As estimated by Info-USA; actual annual sales likely higher.

na = data not available

SOURCES: ESA, Info-USA, City of Stockton.

Costco

Costco operates as a warehouse-style club discount retailer very similar to Sam's Club. Its stores offer a very limited selection of goods that are generally available only as bulk quantity purchases. Shoppers tend to make "big cart' shopping trips. As a warehouse club retailer, customers must pay a yearly membership fee. The stores have few floor staff but are usually fully stocked (although selection and specific items may change frequently). While the customer base will include shoppers of all incomes, most Costco shoppers tend to be large families and lower income or small business owners.

Food 4 Less

Food 4 Less is a large-volume grocery retailer with significant bulk quantity goods for sale. Many stores are open 24 hours and have a significant Latino customer base. Their limited product selection and pricing is particularly targeted to serve lower- and middle-income customers. Few "premium" products are offered with a warehouse store style of operation. Most stores are relatively new and well operated. The Food 4 Less customer base and style of grocery retailing are likely to be highly comparable to those of the project's planned grocery operations.

Pak 'n' Save

This store is located next to the Manteca Wal-Mart (shares parking) and owned and operated by Safeway. Pak 'n' Save is open 24 hours as a very large warehouse-style grocery retailer with a deli counter. Highly stocked with goods, Pak 'n' Save also offers customers a selection of premium goods and a limited selection of ethnic goods in addition to some bulk quantity goods.

Raley's

Raley's is a more "up market" retailer, carrying a wide variety of food including a high proportion of premium and gourmet food items. It operates as a traditional full-service neighborhood grocery store with very limited bulk quantity goods for sale. Instead, it has a wide selection of goods serving a more middle- and upper-income customer base. Raley's stores are not open 24 hours and attract less price-conscious customers.

Rancho San Miguel

This store is a large, high-volume grocery retailer located in relatively close proximity to the project site. It sells Hispanic goods almost exclusively and has a full-service deli, bakery, butcher, and seafood counters. The store is highly stocked, in very good condition, and well-managed. The store was very busy at the time of the site visit.

S-Mart Foods

S-Mart Foods operates a chain of traditional neighborhood grocery stores throughout the Central Valley and other parts of Northern California. Most of the S-Mart grocery stores in Stockton occupy grocery stores previously owned by Safeway, Lucky's, or other grocers. As a result, several of the stores are near other S-Marts or other competing grocery stores. Most stores are in old buildings that are adequately maintained but generally offer only some of the amenities typical of full-service stores. Most of the stores offer limited selections with few bulk quantity goods. Some of the stores were relatively understocked and generally offered few premium goods. The S-Mart

Foods customer base is mostly low- to middle-income customers likely attracted by the store's convenience and proximity as a local neighborhood store for "small cart" shopping trips.

Winco

Winco is a very large, full-service discount grocery retailer that is open 24 hours. This store has a very large fresh produce section, in-store bakery, deli, and fresh meat and seafood departments. Winco sells a wide variety of products including more upscale premium goods as well as some organic goods. Winco also sells many bulk quantity items (typically stocking more than 500 different such goods). For its size, the store offers a relatively limited number and selection of non-grocery sales, concentrating mostly on household and drugstore items. The store is very new (opened in 2002) and is highly stocked and well maintained. Winco is an employee-owned business. This store has a customer base and style of grocery retailing likely to be similar to those of the project's planned grocery operations.

Other Grocery Stores

Numerous other regional and local grocery stores operate in the project's expected market area. These include Centro-Mart, Grocery Outlet, Trader Joe's, Food King, and Lion's Supermarket.

Several of these grocery stores are ethnic grocery retailers (e.g., Food King and Lion's). A majority of these retailers' goods are ethnic brands not sold in non-ethnic grocery stores such as those planned for the Weston Ranch project. These stores are generally converted former grocery stores that, while in relatively poorer condition, are typically highly stocked with goods. Their customer base is likely to be separate from Wal-Mart's for food sales, and therefore, they are expected to be less competitive with the project.

Others stores such as Centro-Mart operate smaller grocery stores serving lower-income communities. These stores are in poor condition and typically offer a limited selection of goods that are often understocked. Customers likely shop at these stores because of their convenience as nearby local stores and because of their limited shopping options.

Grocery Outlet and Trader Joe's are specialty grocery retailers. Grocery Outlet is a bargain grocery outlet with a limited selection of goods that changes regularly. It is not a traditional full-service grocery store but instead offer bargain sales, and its customer base is predominantly lower- and middle-income customers. Trader Joe's has a wider selection of goods specializing in sales of its own brand foods. Trader Joe's offers a greater selection of premium-type goods at lower prices. Customer base tends to be middle and upper income. Due to the specialty nature of these stores, they may be expected to be less competitive with the project.

Large-scale discount retailers such as Wal-Mart, Target, and K-Mart are classified as "general merchandise stores" by the California Board of Equalization and these retailers compete extensively through the country. Other big-box retailers and grocery stores such as Costco, Food 4 Less and Winco are present in the Stockton region and may also be expected to compete with the proposed project. In addition, many smaller grocery stores or specialized retailers are currently operating in Stockton that could be affected by increased retail competition from the proposed project.

According to several local commercial real-estate brokers consulted in preparation of this report, as well as in ESA's professional judgment, most of the retail and grocery stores in the Stockton region are well-established in the market. Most of the major large-scale discount retailers have been operating locally for many years. More recently, several national retailers have upgraded or added new stores, thereby showing their confidence in and commitment to the local retail market. The long-standing presence of large-scale discount retailers has likely ensured that most of the less profitable retailers that were unable to compete effectively with these large-scale discount retailers have already ceased their retail operations in the region.

Major Stockton Shopping Centers

The major shopping centers in Stockton were also identified and inspected (i.e., those with more than 100,000 square feet in size). The names, primary anchor tenants, estimated size, and date of construction of the principal major shopping centers in Stockton are presented (see **Table 3-3**). The occupancy levels and physical condition of facilities are noted in these descriptions, as well as the types of retail activity and goods stocked are also noted. **Figure 3-5** shows their locations; the centers are listed in order of their increasing distance from the proposed Weston Ranch project.

As can be seen from the **Figures 3-2** through **3-5**, there is relatively little retail development in south and central Stockton. The great majority of retail development is located in north Stockton, generally along the principal retail corridors of Hammer Lane, Pershing Lane, Pacific Avenue, and March Lane. Stockton's central downtown area currently has relatively little retail business activity, and the area has been undergoing significant redevelopment efforts under the City's waterfront redevelopment plan. Recent and planned new development includes the new City Center Cinema complex, the Stockton Ballpark, hotel redevelopment, and the Stockton Events Center, now under construction.

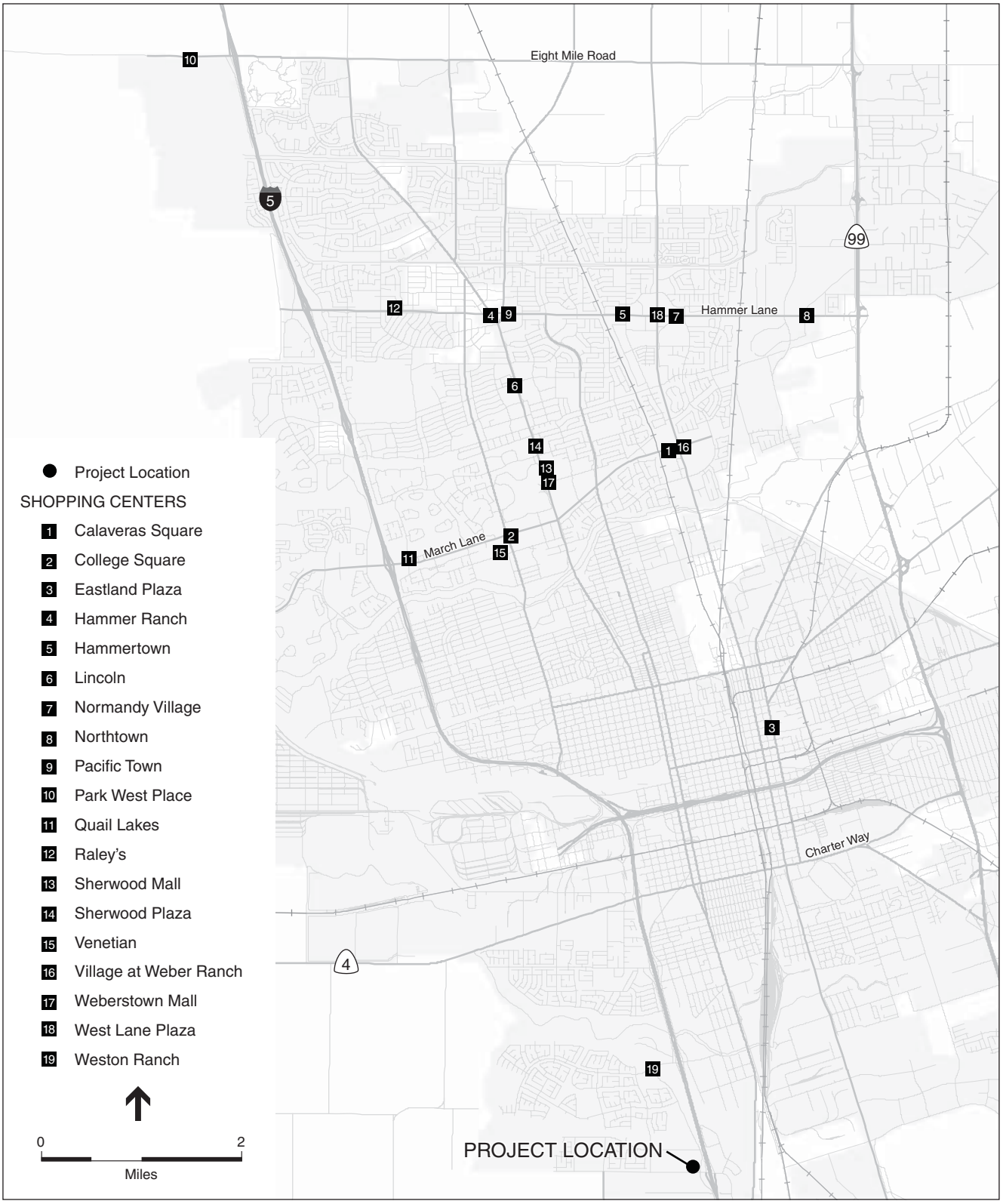
Many of Stockton's shopping centers were constructed before 1991, after which relatively little new retail development occurred until the late 1990s. During the 1990s, Stockton went through a prolonged period when little retail development occurred. As a result, many of the real estate brokers who were interviewed for the retail market analysis indicated that the recent, ongoing retail development boom can be partially attributed to the market "catching up" after years of inactivity. This period of low retail development activity in the 1990s also likely explains much of the deferred maintenance at many of the area's shopping centers. Considerable new retail development in Stockton occurred in the late 1990s. This retail expansion is continuing as the strong local housing and commercial real estate markets generate demand for new retail development.

TABLE 3-3
MAJOR SHOPPING CENTERS IN STOCKTON

Shopping Center	Location	Estimated Distance from Project Site (Miles)	Primary Anchor Tenants	Estimated Date of Opening[a]	Estimated Size (Square Feet)
Weston Ranch	Manthey Rd. & Weston Rd.	0.3	Food 4 Less	1999	100,000
Eastland Plaza	N. Wilson Way & Fremont St.	3.5	Food 4 Less, Walgreen's	1990	200,000
College Square	W. March Ln. & N. Pershing Ave.	5.5	Mervyn's, Big 5	1976	260,000
Venetian Square	W. March Ln. & N. Pershing Ave.	5.5	Dollar Tree, John's Pizza	–	117,000
Quail Lakes	Quail Lakes Dr. & W. March Ln.	5.6	S-Mart Foods, Office Max, Longs	1979/1998	144,000
Weberstown Mall	W. March Ln. & Pacific Ave.	5.7	Dillards, JC Penney, Sears	1965/1992/1997	840,000
Sherwood Mall	Pacific Ave & Robinhood Dr.	6.0	Gottschalks, Macy's, Best Buy	1979/1996/2005	614,000
Village at Weber Ranch	March Ln. & West Ln.	6.1	S-Mart Foods, Longs	1994	175,000
Calaveras Square	East March Ln. & West Ln.	6.1	Food Maxx	1990	160,000
Sherwood Plaza	Pacific Ave & Robinhood Dr.	6.2	K-Mart	–	–
Lincoln	Pacific Ave & Benjamin Holt Dr.	7.0	S-Mart Foods, Podestro's	1951/1992	300,000
Hammer Ranch	Hammer Ln. & Pacific Ave.	7.3	S-Mart Foods, Clothes World, Longs	1977	127,000
Pacific Town	Hammer Ln. & Pacific Ave.	7.3	Toy'R'Us, TJ Maxx, Good Guy's	2003	170,000
Hammertown	Hammer Ln. & Tam O'Shanter Dr.	7.4	Dollar Tree, Copeland Sports	1980	171,000
West Lane Plaza	Hammer Ln. & West Ln.	7.5	Big Lots	1979	110,000
Normandy Village	Hammer Ln. & West Ln.	7.5	S-Mart Foods, Levitz	–	–
Northtown	Hammer Ln. & West Ln.	7.5	Home Depot, PetsMart, (former Wal-Mart)	1992	200,000
Raley's	Hammer Ln. & Don Ave.	7.9	Raley's, Autozone	1999	114,000
Colonial Plaza	Hammer Ln. & I-5	7.9	S-Mart Foods	-	-
Stonewood Center	Lower Sacramento & Ponce de Leon	8.0	Super King Food Store	-	-
Park West Place	Trinity Rd. & Eight Mile Rd.	10.8	Target, Kohl's, Ross	2004	700,000

[a] Multiple dates indicate major renovations or other facility improvements.

SOURCES: ESA, 2005; Insite Environmental, 2000



SOURCE: USGS, 1993; San Joaquin County; City of Stockton; and ESA, 2006

Weston Ranch Towne Center . 204152

Figure 3-5
Major Shopping Centers Operating in the Stockton Region (2005)

Weston Ranch Center

The Weston Ranch shopping center is the closest shopping center to the project site and is located less than one-quarter mile away. The Weston Ranch Center is anchored by a Food 4 Less grocery that was in good condition and well-stocked, like most of its sister stores in the Stockton area. The shopping center also has a Curves gym but is mostly tenanted by small, ethnic specialty stores and service businesses (such as manicurists and dry cleaners). The shopping center was recently constructed and is in good condition.

College Square

This shopping center is located along the Pershing Avenue commercial corridor near its intersection with the March Lane retail corridors. This large and older shopping center is anchored by a Mervyn's, Office Depot, Grocery Outlet, and Big 5 Sporting Goods. The shopping center was in average condition and was fully tenanted.

Quail Lakes Shopping Center

This shopping center is located along the March Street retail corridor next to the Interstate 5 access ramps and is anchored by S-Mart Foods, Longs Drugs, and Office Max stores. The total estimated retail space is approximately 144,000 square feet. The S-Mart grocery store is relatively large and in good condition. The store includes an in-store pharmacy and deli counter. Both the building and interior are well-maintained and the store appears well-managed. The shelves were well-stocked with a mix of both premium and economy/budget goods, suggesting that the store serves a mixed-income customer base.

The shopping center as a whole was generally in good condition and is fully tenanted by other small retailers and a few independent ethnic retail stores and services. The Quail Lakes Shopping Center was substantially renovated in 1998.

Weberstown Mall

Weberstown Mall is located at the intersection of March Lane and Pacific Avenue, one of Stockton's busiest intersections. Located about one mile east of Interstate 5 and three miles west of Highway 99, it is at the heart of Stockton's traditional retail areas. The enclosed mall consists of approximately 845,000 square feet of retail, and as a regional center, it is a major shopping destination for the San Joaquin Valley. The mall is anchored by four major retailers: Dillard's, JC Penney, Sears, and Barnes & Noble. The mall (and peripheral retail) also has numerous specialty retailers including Gap, Baby Gap, Gap Kids, Talbots, Circuit City, Kids "R" Us, and Victoria's Secret. The mall is in good condition and is fully tenanted.

Sherwood Mall

Sherwood Mall is a traditional enclosed shopping mall complex anchored by Macy's and Gottschalks department stores as well as a Toys "R" Us. It is located on Pacific Avenue next to the Weberstown Mall. The mall has a total estimated retail space of about 650,000 square feet. Built in 1976, Sherwood Mall was renovated in 1995. In August 2002, a major addition was constructed that added a new Best Buy store. An additional 25,000-square-foot expansion is near completion that is planned to be occupied by a HomeGoods store (home décor specialty retailer).

Although currently less attractive and with fewer upscale tenants and clients than Weberstown Mall, the building and its facilities are currently undergoing a major renovation to redevelop the mall facilities that was scheduled to be completed in fall 2005. Currently, 36,000 square feet of retail is available for lease at this mall.

Village at Weber Ranch

Located at West Lane and March Street, the center is anchored by a Longs Drugstore and an S-Mart grocery store. The S-Mart store is in average condition with a product selection typical of a chain. There were several vacancies amongst the mostly ethnic and independently owned stores tenanting the shopping center.

Calaveras Square

This shopping center is in poor condition with several vacant properties available for lease. Food Maxx is the primary anchor and a 99¢ Store has recently vacated. The Food Maxx itself is in fair condition and well-stocked. The store's stock included a high proportion of ethnic products.

Sherwood Plaza

This shopping plaza is anchored by a Big K department store. The store has limited food, was generally understocked, and was in poor condition. The neighboring shopping plaza was in generally poor condition although fully tenanted. According to some local realtors, redevelopment of the plaza is planned.

Colonial Plaza

Located along the Hammer Lane commercial corridor, this shopping center is anchored by an S-Mart grocery store. The adjacent Colonial Plaza East development has some vacancies and more office use than retail.

Venetian Square

This shopping center, located on March Lane near the College Square Shopping Center, consists of approximately 117,000 square feet of retail. Anchored by Dollar Tree and John's Pizza (located in a converted retail store), the center also had several vacant retail spaces and is mostly tenanted by small independent retailers, ethnic grocers, and service businesses.

Stonewood Center

This shopping center is located off the Hammer Lane retail corridor and is generally in average to poor condition. The center is anchored by a Super King Food Center that has recently been reopened as an ethnic supermarket that was highly stocked with a wide variety of ethnic specialty goods. Numerous small retail businesses and ethnic grocers are located at the shopping center.

Hammer Ranch

This shopping center was primarily tenanted by an S-Mart grocery store, Longs Drugstore, and Clothes World. The center was in average to poor condition with several other small service and retail businesses at the location.

Pacific Town Center

Located at the intersection of the Pacific and Hammer Lane retail corridors, the new shopping center was completed in August 2003 and consists of approximately 170,000 square feet of retail space. It is fully tenanted, mostly by national chain "category killers"[4] and specialty retail stores including Toys'R'Us, Linens and Things, TJ Maxx, Pier 1 Imports, and Good Guys.

West Lane Plaza

This shopping center is located along the Hammer Lane commercial corridor and is anchored by Lion's Supermarket and Rite Aid. The Rite Aid is an old building that is significantly run-down with very limited stock and selection. The Lion's Supermarket has recently converted to an independently run Asian supermarket and it carries few non-ethnic products. Highly stocked with Asian products, it also has butcher and seafood counters operating in the store. The shopping center was tenanted by mostly independent, ethnic retailers and services. The shopping center buildings and facilities are in relatively poor condition.

Normandy Village Shopping Center

This shopping center is located along the Hammer Lane commercial corridor and is anchored by an S-Mart grocery store. The other principal tenant is the Delta Thrift store. The store is a former Safeway with a small pharmacy and deli counter. The grocery store is not open 24 hours. The store building is in mediocre to poor shape and was understocked in many sections and had a limited product selection. The grocery store carries few premium products; the stock selection is mostly more inexpensive brands targeted for serving lower-income clients. The shopping center has several vacant properties and generally is in poorer than average condition. Other tenants were mostly small independent and ethnic specialty stores.

Northtown

This shopping complex predominantly consists of several large big box retailers (Home Depot and PetsMart). The former north Stockton Wal-Mart is located here and is currently empty after the new Wal-Mart Supercenter was built nearby. The complex is generally in average condition.

Raley's Shopping Center (Hammer Lane)

This recently built Raley's grocery store anchors a smaller shopping center at the intersection of Hammer Lane and Don Avenue. The other major tenants at the shopping center are Blockbuster, Auto-Zone, and Fashion Bug. As discussed in more detail in the specific store descriptions, Raley's is a full-service grocery store including bakery, pharmacy, café, and meat and seafood departments. Raley's has a wide product selection with a strong emphasis on more upscale goods including natural foods and other premium items.

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[4] "Category Killer" stores are generally large specialty (niche) stores that buy and sell in huge volumes at low prices. Prices are further reduced by dealing directly with product manufacturers. Generally as specialty operators, these retailers also offer greater brand selection for a limited range of goods than other retailers.

Park West Place

This newly constructed shopping center is located next to Interstate 5 in north Stockton. The retail development has approximately 700,000 square feet of retail. Major anchor stores for the center are Target, Kohl's, Babies 'R' Us, Ross, Borders Books, and Bed, Bath & Beyond. The shopping center is still establishing itself. A future Wal-Mart Supercenter has been approved for the neighboring site but is currently under a court injunction. A large office park (Spanos West) is also under development next to the shopping center.

Eastland Plaza

The 200,000-square-foot shopping center located at Fremont Street and North Wilson Way has been operating since 1990. The shopping center's primary tenants are Food 4 Less and a Walgreen's store. Eastland Plaza has been incorporated within the City's Eastland Redevelopment Project to develop a 94-acre commercial, retail, and residential complex on Wilson Way. This project was recently merged with the Midtown Redevelopment Project.

Lincoln Shopping Center

The Lincoln Shopping Center on Pacific Avenue and Benjamin Holt Drive is one of the oldest shopping centers in Stockton. Originally constructed in the early 1950s, the shopping center was redeveloped in 1992. The shopping center is approximately 300,000 square feet in size and its primary tenants are S-Mart Foods and Podestrio's. It also has numerous small, non-chain service and retail stores.

Current Redevelopment Programs and Projects

In addition to the inventory and assessment of major retailers in Stockton, site visits were conducted to evaluate the project surroundings and to evaluate the extent of existing urban decay and current City of Stockton urban renewal efforts. Extensive background research and telephone interviews were conducted with local government agencies and organizations to obtain background information and analysis on the nature of existing urban decay within Stockton. Agencies contacted included: the City of Stockton Redevelopment Department, the City of Stockton Economic Development Department, the City of Stockton Neighborhood Services Section, the San Joaquin Council of Governments, and the San Joaquin Partnership.

While there is very limited data or analysis on current urban decay conditions within Stockton, respondents generally confirmed that the City of Stockton's Redevelopment Areas encompass the major areas of concern and potential concern within Stockton. Stockton's redevelopment areas and major recently completed and ongoing redevelopment projects are identified and discussed below. In addition to providing indications of the types and locations of current urban decay in Stockton, this information also reflects the City's ongoing efforts to prevent and remediate urban decay within Stockton.

Although there are urban decay conditions associated with some of the commercial and other businesses in Stockton, Karen Daly of the City of Stockton's Neighborhood Services Section indicated that it was poor and run-down residential housing conditions that were the predominant contributors to existing blight and urban decay conditions in most of Stockton. Over the last ten years, several efforts have been made to improve the agency response to local urban decay. The

Neighborhood Services Division is responsible for enforcing code compliance. After four reorganizations during the last ten years (most of which included relocating the Neighborhood Services Division under other departments including the Building Department, Housing Department, Public Works), the division is now administered by the Police Department, which, in Ms. Daly's opinion, has had a very positive impact in improving the division's compliance and enforcement efforts. In particular, the department has provided increased enforcement responses during non-office hours. Since 1995, the division's staff has also increased from 3 to 16 employees, which has greatly increased the division's capabilities and resources for monitoring and enforcing code compliance. Previously, enforcement was relatively weak, and consequently, there was uneven compliance by local residents. The combination of these two realities served as an additional discouragement for many other residents to maintain their homes and surroundings.

During the period of reorganization for the Neighborhood Services Division, other staff resources and program funding have also improved considerably (Daly, 2005). The City's key economic development programs and funding sources focused on urban decay are also discussed below.

City of Stockton Redevelopment Programs and Funding

The City works in partnership with housing organizations and relies on numerous federal, state, local and private entities to fund its housing and community development programs. It currently operates several programs that are specifically intended to assist and encourage Stockton residents to improve and maintain their homes. The City's main funding sources and principal redevelopment programs include:

- The Community Development Block Grant (CDBG) program provides federal funding specifically targeted to: (1) provide benefits to low- and moderate-income persons; (2) eliminate slums and blight; and (3) meet urgent community needs. Stockton successfully obtained a total $15.5 million budget for the 2005–2006 fiscal year. For the 2004-2005 fiscal year, the City's total Community Development Block Grant (CDBG) funding budget was approximately $14.2 million. The City gained an additional $1.3 million in its annual CDBG funding, resulting in a total $15.5 million budget for the 2005–2006 fiscal year. The CDBG resources are an important funding source for the City's redevelopment efforts to address urban decay. These efforts involve its Code Enforcement and Housing and Economic Development Divisions. In addition, specific current redevelopment programs and initiatives relying on CDBG funding include an economic development program for the West End Project Area, Housing and Neighborhood Revitalization, Housing Loan Pool, and Capital Improvement Programs (City of Stockton, 2005).
- The Home Investment Partnership (HOME) Program provides funding for housing rehabilitation, new construction, and/or the acquisition of affordable housing for tenant-based rental assistance. For the 2004–2005 fiscal year, the City's total HOME Program funding budget was approximately $7.7 million. The City successfully acquired nearly $1.85 million in additional annual HOME Program funding, resulting in a total $9.6 million budget for the 2005–2006 fiscal year. In addition to providing additional general program operational and administrative funding, the HOME Program provides important funding for the City's Housing and Neighborhood Revitalization loan pool programs (City of Stockton, 2005).
- The U.S. Department of Housing and Urban Development provides additional loan assistance to CDBG entitlement communities for large-scale economic development. The Section 108 Loan Program/Brownfields Economic Development Initiative (BEDI) and

Economic Development Initiative (EDI) administered by the U.S. Department of Housing and Urban Development provide loan assistance to CDBG entitlement communities for large-scale economic development activities that might otherwise not be financially feasible. Since 1998, the City has received two Section 108 loans totaling $13 million and $1.5 million of BEDI and EDI funds, respectively, which have been used for numerous downtown economic development projects including the City Center Cinemas and Mercy California Housing Project. In addition, the City has also received special EDI funding for the historic restoration of the Fox Theater and Hotel Stockton. Recently, the City was awarded a new $2 million BEDI and a $12.5 million Section 108 loan to assist with additional economic and development efforts in the downtown and surrounding areas. It is expected that the development projects will include public facilities and new retail, office, and commercial development. Since 1998, the City has received Section 108 loans totaling $29 million for numerous urban renewal projects in the downtown and surrounding areas.

- The City and its residents also receive funding support from other federal programs such as the Shelter Plus Care Program, Section 8 Rental Voucher Program, and Urban Parks and Recreation Recovery Program. These programs assist the City both directly and indirectly in providing housing or services to reduce the urban decay effects within the City.
- Stockton also receives support for its housing and economic development efforts from a variety of state loans and grant assistance programs including: the Low Income Housing Tax Credit Program; Tax Exempt Bond Program; Proposition 46 Housing Bond; Cal Home Program and tax incentives from the State Enterprise Zone Program. These programs offer a variety of state loans and grant assistance to city agencies, non-profits, and residents. The State of California's Enterprise Zone Program provides state income tax incentives for businesses operating in established Enterprise Zones formed in partnerships with city and county governments. These incentives can include hiring credits, state sales and use tax credits, business expense deductions, development fee reductions, planning assistance, and utility tax fee rebates.
- The Stockton Redevelopment Agency uses tax increment funds earned from businesses and property owners within designated redevelopment areas to foster redevelopment within these areas. The City also offers tax and fee deferral incentives to foster new housing and business development within Stockton.

Redevelopment Areas within Stockton

City governments throughout California establish redevelopment areas to assist in eliminating blight and urban decay by encouraging reconstruction and rehabilitation of deteriorated and underused urban areas. Under California state law, city and county redevelopment agencies can designate redevelopment areas to attract investment and facilitate economic development of areas with social, physical, environmental and/or economic conditions that otherwise discourage new development by the private sector. Generally businesses and properties (which can include both residential and non-residential properties) within redevelopment areas will receive planning and financial assistance aimed to reverse urban decay and deterioration, create employment opportunities, revitalize the business environment, improve the housing stock, as well as encourage greater public involvement and private investment.

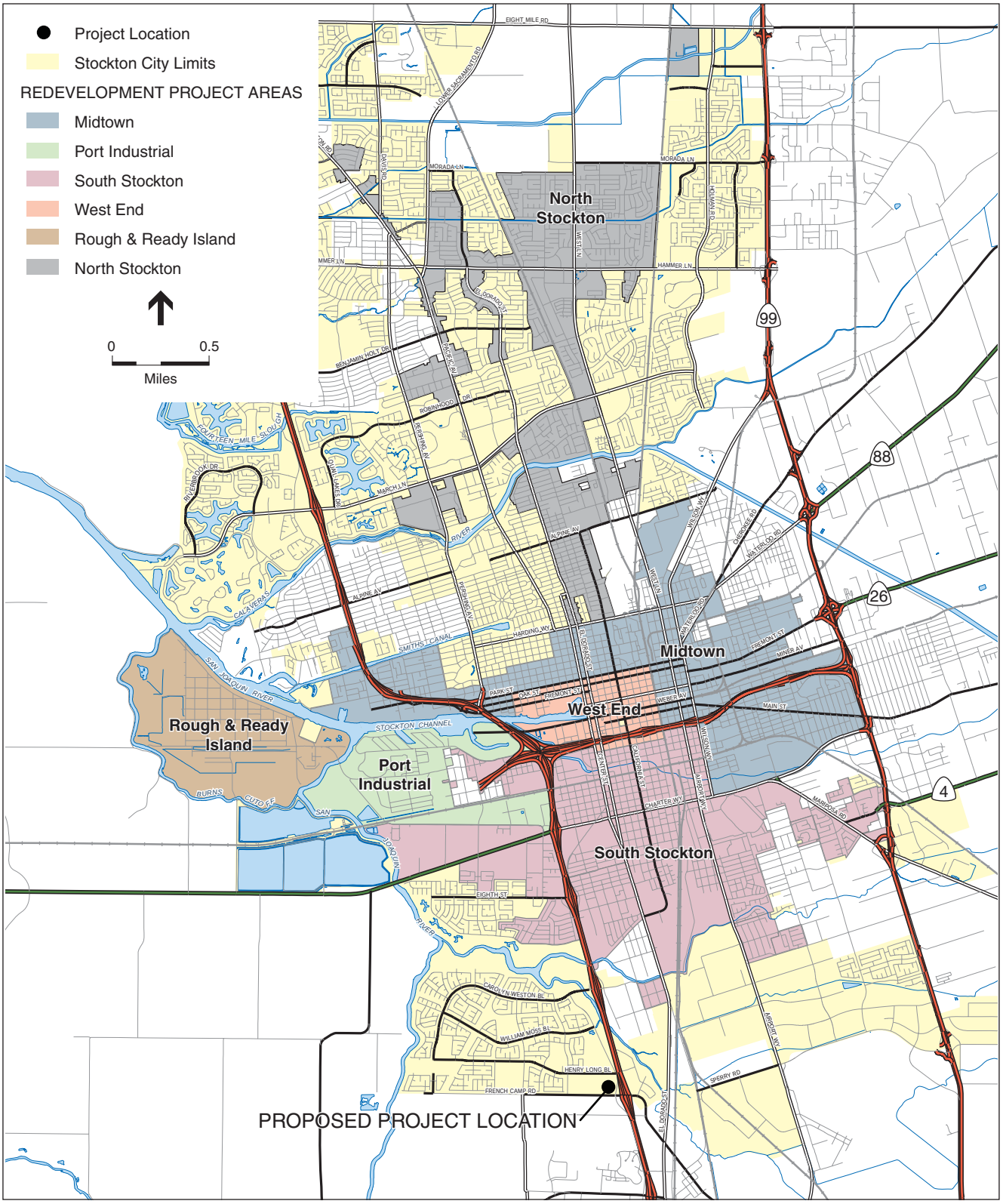
As a result, redevelopment areas are frequently strong indicators of a city's economic health. Areas of urban blight or areas that are vulnerable to potential future decay impacts are often targeted by redevelopment agencies, specifically to avoid and address potential future adverse economic impacts to both businesses and residents. Frequently, it is these areas that require a

disproportionate amount of code enforcement activity. In addition, these areas typically have older and more deteriorated housing stock that is more susceptible to fire and other safety hazards. These buildings are particularly costly to repair. Due to their age and condition, it is difficult to remedy deficient and unsafe structural conditions.

Stockton currently has six redevelopment areas. During the last few years, the City consolidated its eight former redevelopment areas into four larger redevelopment areas: West End Redevelopment Area, Midtown Redevelopment Area, South Stockton Redevelopment Area and the Port Industrial Redevelopment Area. In addition, the City created two new redevelopment areas: North Stockton and Rough and Ready Island.

Figure 3-6 shows the location and boundaries of the six redevelopment areas that encompass most of the current urban decay within Stockton. Each of these areas is discussed below and major City redevelopment projects and programs aimed at addressing urban decay and blight are also identified and discussed.

- **Midtown Redevelopment Project Area.** After it was formed in 2002, this area was merged with the Eastland Redevelopment project area (a 94-acre commercial, retail, and residential redevelopment area on Wilson Way). The project area also includes a 3,500-acre area located between Interstate 5 and Highway 99 to the north of the Crosstown Freeway and south of Harding Way. Currently, there are no major redevelopment projects ongoing in the area.
- **Port Industrial Redevelopment Project Area.** This redevelopment area was created in 2001 and primarily consists of a 1,185-acre commercial and industrial zone surrounding the Port of Stockton.
- **South Stockton Redevelopment Project Area.** Located south of the Crosstown Freeway, this recently approved redevelopment area includes a 2,252-acre area of newly designated redevelopment lands as well as the former All Nation, McKinley, and Sharps Lane Villa Redevelopment Project Areas that were originally created in the 1970s. While no new specific redevelopment projects are currently planned for the area, past redevelopment efforts resulted in the rehabilitation of housing and the construction of new affordable housing.
- **Amended West End Redevelopment Project Area.** Since its formation in 1961, this redevelopment area has grown several times to encompass the downtown area bordered by Park Street, Sacramento Street, Interstate 5, and the Crosstown Highway. Currently, a major portion of the City's redevelopment projects are located within this project area. These projects include the renovation of the Hotel Stockton, restoration of the Fox Theater, and construction of the new multi-screen Cineplex development.
- **North Stockton Redevelopment Project Area.** Formed in July 2004, this project area includes nearly 3,700 acres north of Harding Way and east of Interstate 5. No specific redevelopment policies or projects have been implemented for this redevelopment area.
- **Rough and Ready Island Redevelopment Project Area.** Also formed in July 2004, this recently formed redevelopment area consists of approximately 1,450 acres at the former naval base along the Stockton deep-water channel. Future redevelopment will be planned and implemented jointly by the City and Port of Stockton, which control use of the old naval base site.



SOURCE: City of Stockton, 2006; and ESA, 2006

Weston Ranch Towne Center . 204152

Figure 3-6

City of Stockton Redevelopment Areas

Recent and Ongoing City Redevelopment Projects

Over the last several years, the City has completed numerous major redevelopment projects designed to foster economic redevelopment within Stockton. These projects and programs have been specifically designed to address urban decay and attract new investment and development to Stockton. In recent years, the City's redevelopment efforts have largely concentrated on revitalization efforts for downtown Stockton. After many years of planning and construction, many of these past projects have recently been completed and are succeeding in revitalizing downtown Stockton. This section identifies and summarizes major projects in order to demonstrate the City's ongoing efforts to address current and potential future blight within Stockton. Most notable of the recently completed redevelopment projects are:

- **Children's Museum.** Opened in 2001, the museum is near the downtown waterfront and includes a fully landscaped, 11,570-square-foot outdoor recreation area with a children's play area.
- **City Center Cinemas Project.** Located in downtown Stockton, the new entertainment complex was completed in December 2003 and includes 18,500 square feet of retail space.
- **The Stockton Event Center.** Construction of the Stockton Baseball Stadium and 10,000-seat Stockton Arena has been completed and is located by the downtown waterfront area. A new hotel and conference center is currently under construction and is expected to be completed by 2007.
- **Gateway Block.** A 60,000-square-foot commercial development was completed in 2001 near downtown by the Crosstown Highway and Lafayette Street. The development includes a fast-food restaurant and gas station and is intended to serve as a gateway entry attracting visitors and local residents to downtown.
- **Weber Point Event Center.** This amphitheater and public space development is part of the extensive efforts to redevelop Stockton's downtown waterfront and improve Weber Avenue and neighboring streets. Associated redevelopment initiatives include the ongoing $1.7 million Weber Avenue Streetscape Beautification project, future Weber Point Grill Restaurant, and the recently completed Fox Theater restoration.
- **Edmund Coy Parking Garage.** Located downtown at Hunter and Channel Streets, this five-story parking garage will provide 596 parking spaces when completed.
- **Hotel Stockton.** Renovation of this historic property in downtown Stockton is under way for adaptive reuse that will include 156 low-income and senior apartments as well as 20,000 square feet of new retail including a high-end restaurant.
- **Downtown Transit Center.** This new transit center is designed to enhance downtown transit service, improve transit access to downtown businesses and government agencies, and provide a catalyst for downtown redevelopment activity. The project combines operational functionality with historic preservation, retaining the facades of three of the buildings on Weber Avenue and thereby contributing to and integrating with the Weber Avenue redevelopment projects.

Additional ongoing economic development projects include:

- **Gleason Park Master Development Area.** The project's ongoing initial phase is building 96 affordable housing units and an elementary school. The next development phase will add additional residential, commercial, and retail space.
- **University Park at the CSUS Campus.** Once completed, this office development will add approximately 500,000 square feet, primarily for office use with some other mixed uses.

While a considerable portion of the City's current economic development efforts is focused on the downtown Stockton area, the City is also creating redevelopment goals and plans for its other redevelopment areas throughout the City. These goals and plans will be used to direct the City's future redevelopment efforts to reduce current urban decay and avoid potential future urban decay impacts by focusing the City's technical and financial resources appropriately. In addition, the successful revitalization of Stockton's downtown is expected to have a positive influence throughout the City by improving the quality of life for residents and visitors, as well as improving the area's attractiveness to commercial businesses.

The magnitude and variety of the current economic development programs and projects being actively pursued by the City, as well as the increasing effectiveness of its code compliance efforts, demonstrate both the City's commitment and its capabilities to address effectively current and potential future urban decay impacts, given budget and funding constraints.

Current Retail Sales in Stockton

The following section adjusts published taxable sales data for 2003, obtained from the California State Board of Equalization, into 2008 dollar terms. In addition, the taxable sales estimated were adjusted to account for untaxed sales to estimate the total annual gross sales by Stockton retailers.

The major new retailers entering the Stockton retail market were identified and their annual sales have been estimated and combined with the year 2003 sales data to estimate the Stockton retail sector's total gross sales in 2005. These gross sales estimates were then reduced to isolate only the retail sales of project-competing goods and thus determine the baseline conditions for the subsequent retail impact analysis.

Taxable Sales

Taxable sales information for 2003 published by the California State Board of Equalization provides the most current, as well as the most reliable and comprehensive, retail sales information available for Stockton (California State Board of Equalization, 2005). The California State Board of Equalization reports quarterly on retail sales activity within California, which is measured by observing the sales transactions subject to state sales and use tax. Taxable sales statistics are reported (categorized according to type of business) for all California counties and most cities. State Board of Equalization data represents a primary source of sales data for retail businesses operating in California.

Since only sales subject to sales or use tax are tabulated, non-taxable items (such as food for home consumption and prescription medicines) are not included. As a result, the reported taxable transactions will not fully represent the actual gross sales for grocery stores or other retailers that sell a significant proportion of non-taxable items. The taxable sales data is also reported by the type of store *not by the specific category of goods sold*. Each business is classified by the State Board of Equalization based on its principal line of merchandise (or services) and all sales by that business are reported by its retail store type. Under the State Board of Equalization's business classification scheme, department stores and large-scale discount retailers such as Wal-Mart, Target, and K-Mart are classified as "general merchandise stores." Together with drug stores, these retailers comprise the general merchandise grouping. Grocery stores are reported separately within the "food stores" grouping and typically consist of the "food stores selling all types of liquor" category.

Large-scale discount retailers such as Wal-Mart and Target sell a wide variety of goods–typically as many as 30,000. These goods will include items, such as apparel or home furnishings, that other specialist retailers would report as sales in other retail store categories. As a result, changes in retail sales between large-scale discount retailers and more specialized retailers would be expected to result in similar shifts to their respective taxable sales categories as reported by the California Board of Equalization. However, due to the limited available sales information on retailers and their goods, more detailed data specifying the source of retail sales by category is not available.

According to several local commercial real estate specialists consulted in preparing this report, as well as ESA's professional judgment, most of the retail and grocery stores in the Stockton region are well-established in the market. Most of the major large-scale discount retailers have been operating in the region for many years, and more recently, several national retailers have added new or upgraded stores, thereby showing confidence in and a commitment to the local retail market. The relatively long-standing presence of large-scale discount retail stores has ensured that most of the less profitable retailers that were unable to compete successfully with these large-scale discount retailers will have already ceased their retail operations in the region. Past retail impact studies of discount retailers have often examined their effects in more rural communities where typically there has been relatively limited previous competition among the existing businesses, leading to local monopoly conditions fostering inefficiency (Stone, 1989 and 1997). Under these circumstances, a new discount retailer's entry into the local retail market has had major competitive impacts on local prices and the existing businesses. Other studies have found that the extent of these retail impacts have been significantly lessened in more mature retail environments where many of the relatively inefficient businesses have been forced to leave or adjust their businesses (Gruidl and Kline, 1992). Therefore, particularly in urban and more mature retail market such as Stockton's (i.e., which has had numerous large-scale discount retailers that have been operating locally for many years), while smaller and independent business will likely be affected, a major portion of the competition for customers is likely to be between other similar retailers from within their sales retailer category group.

Because consumers would likely already be familiar with the goods and service options associated with the general and more specialized retailers, new retailers will be more likely to attract sales within a sales category than across sales categories. This trend has been further strengthened by the increasingly significant role that specialized "category killer" stores such as Office Max or CompUSA play in retailing. By virtue of the narrower range of products they

offer, combined with a greater variety of selection for that category and competitive pricing, "category killer" stores serve a specific customer market niche that will likely differ from the primary customer base for large-scale discount retailers. For the purposes of this urban decay impact analysis and as a conservative assumption, it is assumed that the majority of the large-scale discount retailers' new sales impact will affect the general merchandise and food retail categories. This also suggests that a major portion of any retail sales shifts to the project's new large-scale discount retail stores would likely occur from *within* the general merchandise and food retail categories rather than *across* other retail store categories.

The 2003 taxable sales figures were used as the basis for estimating total gross sales in Stockton through 2005, the year the revised Notice of Preparation for this EIR was issued and thus the baseline year for the analysis. The 2003 taxable retail sales by all retail groups for Stockton and California are presented in **Table 3-4**. Stockton's reported $2.5 billion in total taxable retail in 2003 qualified it as the sixteenth largest retail market in California and the fourth largest in Northern California (Eureka Group, 2005). The City of Tracy reported $850 million in taxable retail sales in 2003; combined retail sales for Stockton and Tracy were almost as large as the City of Sacramento's retail sales in the same year.

TABLE 3-4
GROSS RETAIL SALES IN STOCKTON AND CALIFORNIA (2003)

	California			Stockton		
		Gross Sales			Gross Sales	
Retail Sector Categories	**Taxable Sales Total** (2003 $)	**Total** (2008 $)[a]	**Per Capita** (2008 $)[a]	**Taxable Sales Total** (2003 $)	**Total** (2008 $)[a]	**Per Capita** (2008 $)[a]
Apparel	$15,179.7 m	$17,580.7 m	$489	$87.0 m	$100.9 m	$377
General Merchandise[b]	$50,550.8 m	$61,514.0 m	$1,712	$450.4 m	$548.0 m	$2,047
Food[c]	$19,407.8 m	$69,212.5 m	$1,926	$158.3 m	$564.4 m	$2,109
Eating and Drinking	$40,049.7 m	$46,413.1 m	$1,292	$233.7 m	$270.9 m	$1,012
Home Furnishings and Appliances	$15,104.2 m	$17,506.7 m	$487	$83.7 m	$96.8 m	$362
Building Materials[d]	$30,693.8 m	$35,568.6 m	$990	$381.8 m	$442.9 m	$1,653
Auto Dealers and Auto Supplies	$67,052.1 m	$77,725.2 m	$2,163	$594.4 m	$689.1 m	$2,574
Service Stations	$27,714.6 m	$32,126.4 m	$894	$151.3 m	$175.1 m	$655
Other Retail Stores[e]	$54,464.3 m	$63,142.5 m	$1,757	$370.7 m	$429.5 m	$1,605
Total – All Retail	**$320,217.1 m**	**$420,863.7 m**	**$11,712**	**$2,511.3 m**	**$3,318.7 m**	**$12,397**

NOTES: Totals may not add up exactly, due to rounding; m = millions.
Stockton MSA population for July 2003 estimated to be 267,675.
San Joaquin County Population for July 2003 estimated to be 627,124.
State of California population for July 2003 estimated to be 35,934,000.

[a] 2003 dollar terms adjusted into 2008 dollar terms assuming a 3% annual rate of inflation.
[b] General Merchandise taxable sales increased by 5% to account for non-taxed drug store sales.
[c] Grocery sales increased to account for sales of non-taxable goods which are estimated to account for 65% to 70% of total sales.
[d] Gross sales shown in this table include farm equipment dealers.
[e] Gross sales shown in this table include specialty goods (such as sporting goods, office supplies, jewelry) as well as garden supplies.

SOURCE: ESA; State Board of Equalization, 2005; California Department of Finance, Demographic Research Unit, 2005.

In terms of retail sales growth, over the five year period from 1998 to 2003, the Stockton region had the third highest annual growth rate in California. San Joaquin County's retail sales grew by an average of 10.8 percent per year between 1998 and 2003, with Stockton itself the fastest growing area of the County. In comparison, California's annual retail growth in the same period was 6.9 percent (Eureka Group 2005). Furthermore, Stockton itself has been the fastest growing area San Joaquin County. These figures indicate both the increasing importance that the retail sector plays in the Stockton region's economy and the importance of the Stockton region as a major retail center in California.

Gross Sales

As shown in **Table 3-4**, the total taxable retail spending in Stockton was over $2,511 million. On a per capita basis, Stockton's average taxable sales are approximately $9,382 per capita (in 2003 dollars) and were more than 5 percent higher than the corresponding statewide average of $8,911. A significant portion of grocery store and general merchandise retail sales consist of non-taxable items that are unreported in the California Board of Equalization figures. Therefore, taxable sales were adjusted to determine gross retail sales estimates that account for sales of non-taxable goods. Based on discussions with State Board of Equalization analysts, it was determined that to estimate gross general merchandise sales, taxable sales should be increased by 5 percent to account for un-taxed drug store sales. State Board of Equalization analysts estimated that taxable sales at grocery stores likely range between 30 percent and 35 percent of their total sales revenues (California State Board of Equalization, 2005). The reported taxable grocery sales were approximately tripled to estimate gross sales of grocery items per capita. It is estimated that gross average grocery sales reported in the food category were $2,109 (i.e., assuming taxable sales are 32.5 percent of the total sales).

Based on these gross retail sales estimates and census population figures shown in **Table 3-4**, total average per-capita gross retail spending in Stockton was estimated to be $12,397 (in 2008 dollars).[5] For the general merchandise and food categories, it was estimated that the average person spent $2,047 and $2,109, respectively, per year (in 2008 dollars).

Sales by Major New Stockton Retailers

To estimate the total Stockton retail sales for 2005, the 2003 retail sales were adjusted to incorporate additional sales from the new retail sales by the major new retail development that has occurred within Stockton since January 2003.[6] The new Stockton retail development consisted primarily of the three major shopping centers and several minor stores identified below:

- **Pacific Town Shopping Center.** Approximately 170,000 square feet of new retail opened at the shopping center in August 2003. Since the Pacific Town retailers operated and reported retail sales during part of 2003, the net pro-rata adjustment for annual retail sales for subsequent years is estimated to be $20.0 million in 2008 dollars (furniture sales were excluded because such sales will not compete with the proposed project's expected future retail development).

[5] Retail sales estimates for the impact analysis are expressed in 2008 dollars to facilitate comparisons of past and future retail sales projections. 2008 dollars are used because, if approved, the project would be completed in 2008.

[6] New retailers since January 2003 were identified so that annualized adjustments to the State Board of Equalization 2003 data could be made, to represent the retail sales of Stockton for 2005.

- **Spanos Park West**. Approximately 765,000 square feet of new retail construction at the site was completed between 2004 and 2006. Based on national sales per square foot averages and the retail configurations detailed in the NOP submission for the Spanos Business Park (LSA, 2006), it is estimated that the new Park West Place will generate approximately $217.8 million in annual total retail sales, of which $157.6 million will be from goods that would also be sold by Weston Ranch retailers (i.e., excluding sales at Lowe's and large-item furniture stores).

- **Hammer Lane Wal-Mart Supercenter.** The relocation of the North Stockton to the new 3223 East Hammer Lane site added another 83,000 square feet of retail for a total of 208,000 square feet that would have annual sales of up to $85.9 million. It has been conservatively estimated that the former site at 3702East Hammer Lane has been back-filled by new retail that competes with the project.[7]

- **Other minor miscellaneous retail development.** Several other individual new retail and restaurants have also opened since 2003 throughout Stockton. However, most of these businesses are small (i.e. less than 3,000 sq. ft.). Due to their small size and local market focus, these minor developments would be expected to have negligible effects on major retail centers. The Downtown City Centre Cineplex added approximately 18,000 square feet of retail development, which is primarily focused to serve downtown visitors and therefore is not considered likely to compete directly with the project. In 2004, Food-4-Less opened a new store of its Rancho San Miguel supermarket franchise in South Stockton. The 41,000 square foot grocery store also has an associated gas station operation. Together, Rancho San Miguel is estimated to add $19.4 million in sales annually.

As shown in **Table 3-5**, new retail development within Stockton between 2003 and 2005 is estimated to have added $283.3 million in gross sales to the Stockton 2003 retail sector's economy. As discussed in detail in the Market Analysis, a considerable portion of these sales may be expected to be generated from secondary and tertiary market customers who are not Stockton residents. A conservative reduced market area assumption of 15 percent for these customers has been applied. Accordingly, it is projected that approximately $241.8 million (85 percent) of these new sales have been generated as new sales from Stockton residents. Otherwise, these new retail developments would be expected to draw retail sales away from existing Stockton retailers.

The per capita gross retails sales for Stockton estimated in **Table 3-4** were multiplied by the Stockton's estimated 2003 population to estimate the total gross sales in Stockton for all goods as shown in **Table 3-6**. It is estimated that the gross retail sales for all goods were approximately $3,319 million (in 2008 dollars). Based on analysis identifying the expected retail goods to be sold by the proposed Weston Ranch project, the total gross sales were then adjusted to determine the gross sales project competing goods. As shown in **Table 3-6**, Stockton's estimated annual gross sales of project competing goods is estimated to be approximately $2,071 million.

[7] The former North Stockton Wal-Mart building (at 3223 East Hammer Lane) was sold in May 2005 to Lifestyle Furniture who current operates a furniture store at the location.

TABLE 3-5
SALES OF PROJECT-COMPETING GOODS BY MAJOR NEW STOCKTON RETAILERS (2003-2005)

State Board of Equalization Retail Sector Category	Retail Sales of Project-Competing Goods by Major New Stockton Retailers					Estimated Stockton Originating Sales[b] (f = e x 85%)
	Pacific Town[a] (a)	Spanos Park West (b)	Hammer Lane Wal-Mart (c)	Other (d)	Total (e = a+b+c+d)	
Apparel	$4.5 m	$15.1 m	$7.9 m	~	$27.6 m	$23.5 m
General	~	$65.6 m	$15.1 m	~	$80.8 m	$68.9 m
Food	~	~	$36.4 m	$16.5 m	$53.0 m	$45.1 m
Eating and Drinking	~	~	~	~	~	~
Home Furnishings	$2.4 m	$6.4 m	$9.4 m	~	$18.2 m	$15.7 m
Building	~	~	~	~	~	~
Auto Dealers	~	~	~	~	~	~
Service Stations	~	~	~	$3.2 m	$3.2 m	$2.8 m
Other Retail Stores	$13.1 m	$70.6 m	$17.2 m	~	$101.0 m	$85.9 m
Total	**$20.0 m**	**$157.6 m**	**$85.9 m**	**$19.7 m**	**$283.3 m**	**$241.8 m**

NOTES: Figures expressed in 2008 dollar terms; Totals may not add up exactly due to rounding; m = millions of dollars.

[a] Net sales adjustment accounting for reported 2003 sales.
[b] Estimated Stockton originating sales based on conservatively assuming 85% of sales generated from Stockton residents.

SOURCES: ESA; City of Stockton, 2005; Urban Land Institute, 2002.

TABLE 3-6
SALES OF PROJECT-COMPETING GOODS BY STOCKTON RETAILERS – 2005 BASELINE

	Gross Sales in Stockton			
		Project Competing Goods[a]		
Retail Sector Categories	**All Retail Goods (2003)[b]** (a)	**Stockton Retailers (2003)** (b)	**New Stockton Retailers (2003–2005)[c]** (c)	**All Stockton Retailers (2005) – Baseline Conditions[d]** (d = b + c)
Apparel	$100.9 m	$100.9 m	$23.5 m	$124.4 m
General Merchandise	$548.0 m	$548.0 m	$68.9 m	$616.9 m
Food	$564.4 m	$564.4 m	$45.1 m	$609.5 m
Eating and Drinking	$270.9 m	$270.9 m	~	$270.9 m
Home Furnishings	$96.8 m	$96.8 m	$15.7 m	$112.5 m
Building Materials	$442.9 m	~	~	~
Auto Dealers and Auto Supplies	$689.1 m	$58.6 m	~	$58.6 m
Service Stations	$175.1 m	$175.1 m	$2.8 m	$177.9 m
Other Retail Stores	$429.5 m	$256.0 m	$85.9 m	$341.9 m
Total – All Retail	**$3,318.7 m**	**$2,070.7 m**	**$241.8 m**	**$2,312.5 m**

NOTES: Figures expressed in 2008 dollar terms; totals may not add up exactly due to rounding; m = millions of dollars.

[a] Retail sales have been adjusted to include only those sales of goods sold by the Weston Ranch project.
[b] Figures taken from Table 3-4.
[c] Figures taken from Table 3-5.
[d] Annual new retail demand growth adjusted to include only project-competing goods.

SOURCES: ESA.

Stockton's retail sector gross sales are estimated to be $2,313 million in 2005, as shown in **Table 3-6**. The 2005 gross sales were determined by adding the new Stockton retailers' (i.e., the major retail developments between 2003 and 2005) estimated $240.8 million of competing goods sales from Stockton residents to the 2003 baseline of gross sales of project competing goods.

Retail Leakage Analysis

A retail sales leakage analysis was performed to determine the extent to which Stockton residents currently shop within Stockton or travel to other destinations to make their retail purchases. A leakage analysis evaluates an area's retail market performance by comparing the actual reported retail sales in an area to the potential purchases that residents would be expected to make, based on average shopper behavior. If actual sales are greater than would be expected, this "sales surplus" suggests that the area is attracting people from outside to shop within the area and/or that the local residents have a higher than average amount of per capita retail spending. Conversely, a "retail leakage" (i.e., when actual sales are less than would otherwise be predicted) indicates that local residents are making their retail purchases outside their local shopping area.

Using the estimates of California and Stockton per capita gross spending from **Table 3-4**, the leakage analysis was performed to estimate the amount of retail sales attraction or leakage by the Stockton retail sectors (see **Table 3-7)**. As can be seen in **Table 3-7**, Stockton is a sales attractor for all retail categories.[8] While the "auto dealers" and "building materials" retail sectors have the strongest retail attraction, both the general merchandise and food categories also show a high degree of sales attraction. Overall, it is estimated that Stockton retail businesses draw more than $1 billion annually in retail sales (in 2008 dollars) from non-residents and/or from greater than average local spending. This effect could indicate that little consumer retail demand by Stockton residents is unmet locally and, therefore, that only minor retail sales are leaking out of Stockton. The findings may also indicate that Stockton's retail market currently has a major impact on the regional economy as non-Stockton residents are being drawn to make purchases from Stockton retailers. Stockton's current position as a major regional retail hub would also suggest that there are limits to the extent that any new Stockton retailers may be expected to increase retail sales from current residents in the region.

Interviews conducted with City economic development specialists and local commercial realtors suggest that north Stockton's strong regional retail attraction effect may be obscuring significant ongoing retail leakage, particularly among south Stockton residents. Unfortunately, due to insufficient sales data as well as restrictions on proprietary information, a south Stockton-specific leakage analysis could not be performed to quantify the magnitude of this effect. Several local real estate brokers have suggested that much of Stockton's current shopping attraction is being generated from Lodi and residents of unincorporated San Joaquin County areas, particularly the northern and eastern areas. Additional retail sales may be coming from Sierra foothill residents traveling significant distances westward to shop in Stockton due to the limited retail options locally. Stockton retail real estate brokers also stated that residents of south and central Stockton that are currently under-served by retailers may do a major portion of their retail shopping at other locations outside Stockton such as Tracy or Livermore. This spending behavior is considered particularly likely to be prevalent among recently relocated homeowners who commute daily to typically higher-paying jobs in Contra Costa or Alameda Counties. Local real estate brokers expect that new and more convenient retail development in south Stockton could recapture a major proportion of these Stockton residents' spending that is currently lost from the Stockton economy.

[8] Apparel sales, home furnishing, and service stations categories show a very minor sales attraction effect.

TABLE 3-7
STOCKTON LEAKAGE ANALYSIS

	California	Stockton					
		Sales Per Capita			Sales Attraction (+) / Leakage (–)		
Retail Categories	**Sales Per Capita**[a] (a)	**Expected**[b] (Estimated) (b = a x 71.6%)	**Actual**[a] (Reported) (c)	**Gross Sales** (Estimated) (d)[c]	**Sales Per Capita** (e = c - a)	**Net Sales Attracted** (f = d x pop.)	**%** (g = f / e)
Apparel	$489	$350	$377	$100.9 m	+$27	+$7 m	+6.9%
General Merchandise[d]	$1,712	$1,228	$2,047	$548.0 m	+$819	+$220 m	+40.1%
Food[e]	$1,926	$1,379	$2,109	$564.4 m	+$730	+$196 m	+34.6%
Eating and Drinking	$1,292	$925	$1,012	$270.9 m	+$87	+$24 m	+8.6%
Home Furnishings and Appliances	$487	$349	$362	$96.8 m	+$13	+$4 m	+3.7%
Building Materials	$990	$709	$1,653	$442.9 m	+$944	+$253 m	+57.1%
Auto Dealers and Auto Supplies	$2,163	$1,549	$2,574	$689.1 m	+$1,025	+$275 m	+39.8%
Service Stations	$894	$641	$655	$175.1 m	+$14	+$4 m	+2.3%
Other Retail Stores	$1,757	$1,258	$1,605	$429.5 m	+$347	+$93 m	+21.6%
Total - All Categories	**$11,712**	**$8,386**	**$12,397**	**$3,318.7 m**	**+$4,011**	**+$1,073 m**	**+32.4%**

NOTES: m = millions of dollars

[a] Retail sales are based on 2003 reported taxable sales figures and are expressed in 2008 dollar terms assuming an annual inflation rate of 3%. See Table 3-4.
[b] Stockton residents' annual per capita spending by category, based on California averages and adjusted for average income.
[c] See Table 3-4.
[d] General merchandise taxable sales increased by 5% to account for non-taxed drug stores sales.
[e] Grocery sales were adjusted to account for sales of non-taxable goods, which are estimated to account for 67.5% of total sales.

SOURCE: State Board of Equalization, 2005.

SECTION 4
Project Urban Decay Analysis

A comprehensive and in-depth urban decay analysis was performed for the project, specifically analyzing and assessing potential retail impacts to the retailers within Stockton and the surrounding area. The urban decay analysis consisted of several related investigations and assessments designed to evaluate and quantify (to the extent possible, given data limitations) each of the principal causality steps necessary to determine significant urban decay impacts attributed to the proposed retail development.

Proposed New Retail Development

Description

The principal retail development planned to "anchor" the project is a large-scale discount superstore (such as a Wal-Mart Supercenter) and a warehouse-style club store (such as Sam's Club). Superstores typically are larger versions of regular large-scale discount department stores (150,000 to 225,000 square feet) with full grocery sections. In addition, a couple of mid-sized specialty retail or "category killer" stores and several smaller in-line retail shops would be located contiguously. Several retail pad stores, restaurants, and fuel stations with sufficient parking would also be developed on the site.

The proposed retail configuration for the project generally conforms to the industry standard categorization of a "power center." According to the International Council of Shopping Centers (a trade industry for the international shopping center industry), retail power centers generally consist of 250,000 to 600,000 square feet of retail property dominated by three or more large anchor stores. These anchor stores are generally freestanding buildings and typically consist of discount department stores, warehouse clubs, and "category killers."

The primary trade areas for these retailers are generally 5 to 10 miles (ICSC, 2004). The Urban Land Institute similarly defines a power center as a retail location that:

> [C]ontains at least four category-specific, off-price anchors of 20,000 or more square feet. These anchors typically emphasize hard goods such as consumer electronics, sporting goods, office supplies, home furnishings, home improvement goods, bulk goods, drugs, health and beauty aids, toys, and personal computer hardware/software. They tend to be narrowly focused but deeply merchandised "category killers" together with more broadly merchandised, price oriented warehouse club and discount department stores. Anchors in power centers typically occupy 85% or more of the total GLA (gross leasable area). (Urban Land Institute, 2001)

The total proposed maximum potential build-out for the project is 710,000 square feet for the retail and restaurant development as shown in Table 4-1.

TABLE 4-1
PROPOSED LAND USES BY STORE TYPE

Store Types	Predominant Retail Categories	Proposed Maximum Space Use
Large Retail		
Wal-Mart Supercenter	Food, Other Retail, General Merchandise, Home, Apparel	232,000
Sam's Club	Food, General Merchandise, Home, Other, Apparel, Service Stations, Auto	142,000
Specialty Retailers	General, Home, Other, Apparel	126,000
Total		**500,000**
In-line Shops		
Specialty Retailers	General, Home, Other, Apparel	**100,000**
Retail Pads		
Specialty Retailers	General, Home, Other, Apparel	50,000
2 x Fuel Stations	Service Stations	10,000
Total		**60,000**
Restaurants	Eating and Drinking	**50,000**
Total Retail		**710,000**

SOURCE: ESA, Vestar

These areas represent maximum potential development footprints for the project. The actual retail development build-out is likely to be less than these maximums. However, to be conservative in this analysis, the maximum Weston Ranch retail build-out has been used to ensure that the retail sales impacts to other retailers are not underestimated.

For the purposes of this analysis, it is assumed that project completion would occur in 2008. As with any new retail development, it is considered likely that sales will ramp over time until the stores are fully established and sales have stabilized at their projected levels. Barring any unforeseen development delays or major changes to the region's economy, it may reasonably be assumed that a full steady-state sales condition could be fully attainable by mid-2008.

Retail Sales for the Project

The Wal-Mart Supercenter and Sam's Club store are central to the urban decay analysis because they would be the project's "anchor" tenants that will (1) draw consumers away from other nearby competing retailers and/or (2) attract/serve new consumers to the area. At the present stage of the project's development, the type of the other likely retailer tenants for the Weston Ranch retail development is unknown. While these other retail stores will have some contributing impact on the existing local retailers, they are less likely to be primary draws for consumers and, as more specialized retailers, they will likely affect a narrower and more limited set of other retail stores. Furthermore, their more comparable size and operations to those of the existing local retailers means that they will likely have less competitive advantage over their competitors. Finally, consumers seeking specialized retail purchases would be expected to select and/or comparison shop for goods unlike more "general purchase" shoppers that would instead select a single location for their shopping trip.

While the large-scale discount retailers may be the primary anchor tenants likely to predominantly determine Weston Ranch's retail development success in attracting customers (and thereby its sales impact on other retailers in Stockton), the entire Weston Ranch retail development has been analyzed in order to be conservative in the retail impact analysis. Due to confidentiality concerns, actual and detailed annual sales figures for the north Stockton Wal-Mart Supercenter and other similar local stores (such as Target, K-Mart, and Costco) are not available. Therefore, national average per square foot sales data was obtained and is used to project the expected future sales for the proposed Wal-Mart Supercenter and Sam's Club. As shown in Table 4-2, according to national sales data reported in Wal-Mart's annual 10-K report for its 2004 financial year (which ended January 31, 2004), the average sales per square foot of all Wal-Mart Stores (both Discount and Supercenter) was approximately $415 (in 2003 dollar terms). For its Sam's Club operations, Wal-Mart reported nationwide average store sales per square foot of approximately $507 (in 2003 dollars). These estimates are comparable to the most current census data of national retail data, which reports average sales for warehouse and superstores (e.g., such as Sam's Club) of $429 per square foot. For national chain or discount department stores (which may be more similar to the Wal-Mart Supercenter), average sales were approximately $270 per square foot (National Retail Foundation Federation, 2004).[9]

TABLE 4-2
WAL-MART STORE COUNT IN UNITED STATES (FISCAL YEAR 2004)

	Number of Stores	Annual Sales (in Millions)	Total Area (Square Feet)	Average Area per Store (Square Feet)	Average Sales per Store (in Millions)	Average Sales per Square Foot
Sam's Club	538	$34,537	68,144,309	126,662	$64.20	$506.82
Wal-Mart Discount Stores	1,478		145,064,854	98,149		
Wal-Mart Supercenters	1,471		275,067,679	186,994		
Wal-Mart Totals	2,949	$174,220	420,132,533	142,466	$59.08	$414.68

SOURCE: U.S. Securities and Exchange Commission, 2004.

However, average per capita income levels for Stockton residents are generally significantly below national averages. According to the 2000 census, the average per capita income level for Stockton residents was $15,405, which was approximately 71.5 percent of the national average income level of $21,587 (American Factfinder, 2005). All else being equal, Stockton residents' lower average income levels might be expected to result in correspondingly reduced future Wal-Mart sales, because its stores will have less local spending income from which to generate sales. The reasonableness of this assumption is strengthened by Wal-Mart's large number of stores distributed widely throughout the United States, although the retailer's market niche (i.e., as a discount retailer to middle- and lower-income customers) might offset some of the income effect. In addition, the influence of other factors and unknown determinants (such as the extent of other retail competition, competition faced by a "proto-typical" Wal-Mart, or the degree of non-

[9] This data is based on 1997 Census Data and it is unclear if the reported sales are in nominal or 2004 dollar terms. The average warehouse sales converted from 1997 dollars into 2008 dollars would be $569 per square foot and discount retailer sales would be $357 per square foot. Both of these are still comparable to the base estimates used for the Sam's Club and Wal-Mart operations.

local spending) may also contribute to the proposed retail development's future sales levels. Therefore, as a conservative assumption (i.e., to avoid underestimating the project's expected local retail sales), the project's future sales projections have been adjusted by a lesser proportion than the actual per capita income levels. Instead of a 28.5 percent adjustment, a more conservative 14 percent adjustment has been used to project the proposed retail development's future retail sales levels.

In recent years, average Wal-Mart store sales per square foot have consistently increased annually. Future store sales may be expected to continue this trend for the foreseeable future, partly as result of inflation effects. Therefore, assuming a future increase of 3 percent per annum and applying the 14 percent adjustment discussed previously, then the average store sales per square foot for a Wal-Mart Supercenter-type store would be, in 2008 dollars, approximately $414 per year and approximately $505 for a Sam's Club-type warehouse club store. Based on their projected store sizes, as shown in Table 4-3, the annual sales for the project's proposed Wal-Mart and Sam's Club would be expected to be approximately $96.0 million and $71.8 million (in 2008 dollars), respectively. Together, the two retailers would earn approximately an estimated $167.8 million of annual regional retail sales (in 2008 dollars) (see Table 4-3).

TABLE 4-3
LARGE DISCOUNT RETAILER SALES AT WESTON RANCH (2008 DOLLARS)

	Wal-Mart (Average Estimated Sales = $414 per Square Foot)		Sam's Club (Average Estimated Sales = $505 per Square Foot)		Combined	
Sales Type	**Retail Area (Square Feet)**	**Projected Sales**	**Retail Area (Square Feet)**	**Projected Sales**	**Retail Area (Square Feet)**	**Projected Sales**
General Merchandise (70%)	162,400	$67.2 m	99,400	$50.3 m	261,800	**$117.5 m**
Grocery (30%)	69,600	$28.8 m	42,600	$21.5 m	112,200	**$50.3 m**
Total: All Retail	**232,000**	**$96.0 m**	**142,000**	**$71.8 m**	**374,000**	**$167.8 m**

NOTES: All sales expressed in 2008 dollars; figures may not total exactly due to rounding. m = millions of dollars; Grocery and non-grocery sales distribution are estimates primarily for representative purposes.

SOURCE: ESA, 2005.

Total future retail sales for the project at buildout in 2008 are estimated to be approximately $268 million in 2008 dollars (see **Table 4-4**). This retail sales projection was based on national average sales-per-foot for Wal-Mart, Sam's Club, and average specialty retailers, partially adjusted to account for the Stockton region's relatively lower income levels.

TABLE 4-4
PROJECT FUTURE ANNUAL SALES BY STORE TYPE

Store Types	Predominant Retail Categories	Proposed Maximum Space Use	Dollars per Square Foot	Annual Sales
Large Retail				
Wal-Mart Supercenter	Food, Other Retail, General Merchandise, Home, Apparel	232,000	$414	$96.0 m
Sam's Club	Food, General Merchandise, Home, Other, Apparel, Service Stations, Auto	142,000	$505	$71.8 m
Specialty Retailers	General, Home, Other, Apparel	126,000	$264	$33.2 m
Total		**500,000**		**$201.0 m**
In-line Shops				
Specialty Retailers	General, Home, Other, Apparel	**100,000**	$264	**$26.4 m**
Retail Pads				
Specialty Retailers	General, Home, Other, Apparel	50,000	$264	$13.2 m
2 x Fuel Stations	Service Stations	10,000	@ $3.2 m each	$6.4 m
Total		**60,000**		**$19.6 m**
Restaurants	Eating and Drinking	**50,000**	$421	**$21.0 m**
Total Retail		**710,000**		**$267.9 m**

NOTES: All sales figures are expressed in 2008 dollars; total may not add up exactly due to rounding; m = millions of dollars.

SOURCES: ESA; Urban Land Institute, 2002.

Market Analysis for the Project

The market analysis identifies the key factors determining the proposed project's trade areas and performance. The primary trade area defines the area around the store from which the majority of a store's sales are expected to be generated. Typically, the primary trade area is the area from which 60 to 80 percent of the store's sales originate. Besides the project's primary market, secondary and tertiary market trade areas are also determined for the Weston Ranch project as well as the proportion of store sales expected to be generated from each trade area. These market areas reflect differences in the origin of customers, their shopping patterns and the proportion of sales they generate for the retailer.

Factors Affecting Store Trade Areas and Sales Performance

For a specific store, the trade area and its sales performance may be determined by several factors:

- **Other Stores:** The locations of the other store branches are likely to be major factors in determining the trade area as these will represent a ready substitute retail option.

- **Competing Retailers:** The proximity and/or accessibility of alternate comparable and competing retailers will also be an important factor in determining a store's market area. Consumers in more rural locations with few retail store options will likely be willing to drive greater distances to shop. Accordingly, retailers near rural locations and/or few competing business will have larger trade areas than stores in predominantly urban locations.

- **Convenience:** All else being equal, consumers generally will choose to shop at a closer and/or more convenient retail location. However, if a store is located in a frequently congested part of town or the store itself is frequently overcrowded, consumers may redirect their business to other stores.

- **Type of Goods:** The type of goods will also affect a store's trade area. Typically, general retailers have larger trade areas than grocery stores, reflecting consumer shopping habits and preferences for convenience in everyday shopping. For more frequent shopping and service needs, consumers typically travel shorter distances. According to ICSC, trade areas of three miles are common for supermarkets.

- **Attraction of Complementary Businesses:** Under certain circumstances, another business may enlarge the customer capture area by drawing customers to a store's location, which will increase the store's potential customers. This is the foundation of shopping center anchor stores that can pull customers from a wider geographical area.

When determining a store's expected trade area, these factors are considered in order to represent the nature of retailing–both in terms of customer shopping patterns and existing retailers. ESA has used its professional judgment to consider these factors, as well as other relevant qualitative and quantitative information, to determine a reasonable market area for the project's proposed retail development.

Site-Specific Trade Area Factors

As mentioned previously, according to ICSC (2004), the primary trade areas for power centers like the project typically are between 5 and 10 miles. Stores in more rural areas or with limited competition will tend to have larger primary trade areas, while more urban sites in more mature retail markets with other competing retailers (such as Stockton) will be expected to have a smaller primary trade area. Typically, larger stores or stores with attractive additional retail components (such as Superstores) may be expected to have somewhat wider trade areas because they can attract customers to travel somewhat further to their store.

According to industry experts, value-oriented anchor tenants, such as those proposed for the project, generally have smaller trade areas than typical department stores anchoring traditional malls. Value-oriented retailers generally have less demanding demographic and market requirements. Typically, these retailers are located in rapid growth markets (Lam, 2002).

According to the Department of Transportation's most recent National Household Transportation Survey, estimates that typical Californian consumers living in urban areas such as Stockton (i.e., with populations between 0.25 and 0.5 million) travel on average 4.9 miles to buy goods such as groceries, clothing and hardware. The average trip duration for these shopping trips was also estimated to be 11.7 minutes. For other retail shopping and general errands, these consumers traveled an average of 4.8 miles with a typical trip duration of 10.6 minutes. This suggests that the typical market areas for retail stores would be about five miles.

The most recent publicly available market analysis of the Stockton retail market was performed for the new Wal-Mart Supercenter development on Hammer Lane (Insite Environmental, 2000). In its market analysis for the Supercenter, D. Taussig Associates identified a primary trade area

corresponding to the city of Stockton that was projected to generate 60 percent of the store's sales. The analysis further identified a secondary trade area (consisting of nearby communities including Manteca, Lodi, French Camp, Lathrop, and Ripon) and a tertiary trade area (consisting primarily of Tracy, East Contra Costa, Calveras, and Amador County foothill communities) that would account for 35 percent (sic) and 15 percent (sic) of the store's future sales.

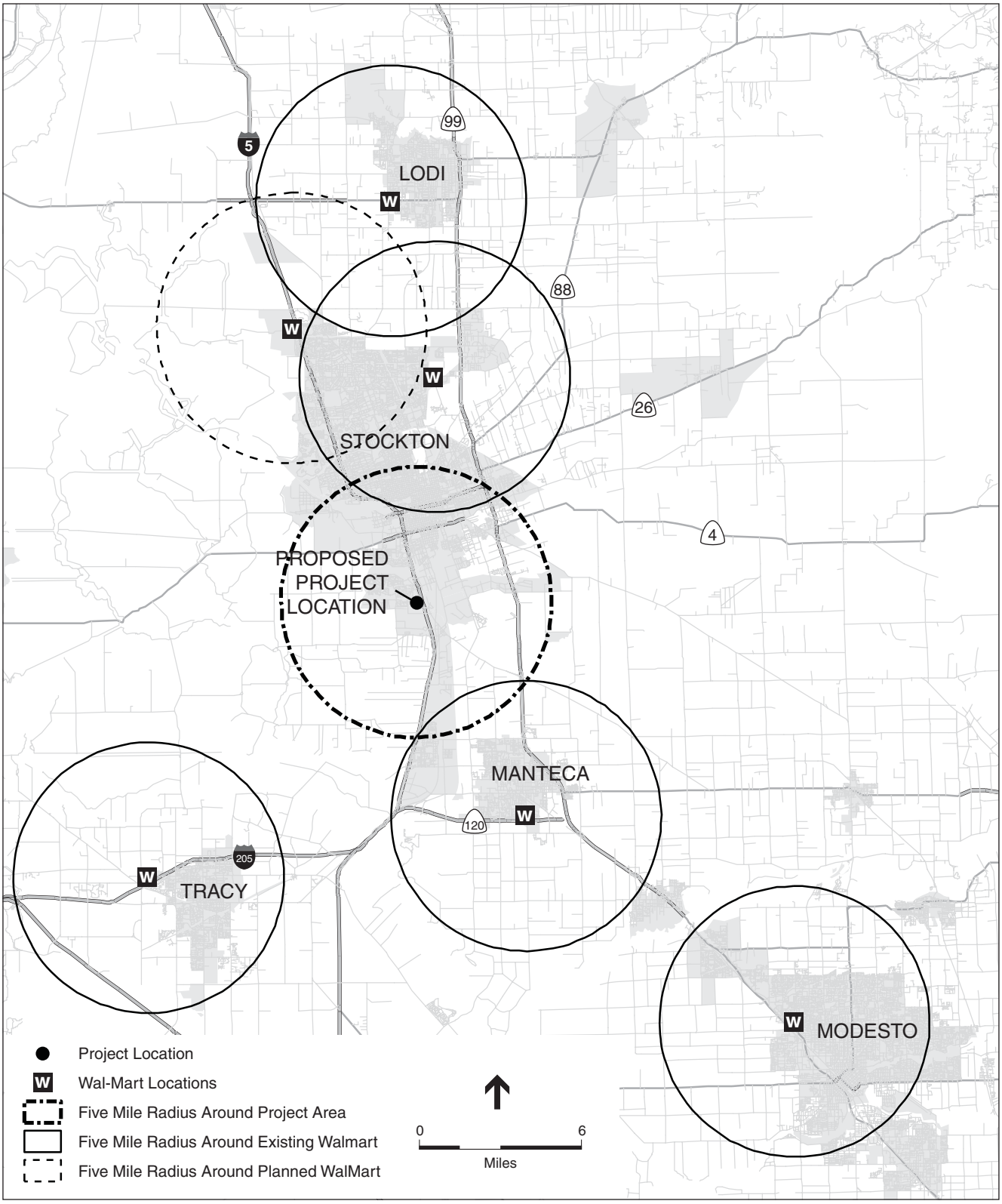
Keyser Marston Associates review of the analysis concluded that the Taussig Associates market analysis trade areas were overly broad and, as a result, did not accurately represent the existing shopper patronage patterns. Keyser Marston performed a license plate survey of Stockton shoppers at 12 grocery and large-scale discount retail stores to identify the customers' origins. The survey concluded that a much higher proportion of shoppers were Stockton residents (68 percent for large-scale retail shoppers and 77 percent for grocery), with a corresponding smaller secondary trade area residents (13 percent for large-scale retail stores and 8 percent of grocery shoppers). While the license plate survey found a near negligible proportion of tertiary residents (2 percent for all shoppers), it also reported a relatively high proportion of out-of-region shoppers (16 percent for large-scale retail stores and 13 percent for grocery). Generally, license plate surveys match vehicles with their current place of registration (not location of purchase). However, the proportion of out-of-region shoppers seems high and more typical of a city with many workers commuting into the community, local tourism destinations, or a prevalence of second homes. Alternatively, some proportion of apparent non-region vehicles may partly reflect for delay in new resident re-registrations or other reasons.

Keyser Marston's review also noted the significant imbalance in the geographic distribution of retail and residential population within Stockton. Historically, most of Stockton's retail development has been located in the northern part of the city (i.e., north of the Calaveras River) with very little retail serving the south Stockton area. In recent years, this trend has continued as nearly all of new retail development has occurred in north Stockton along (or in the near vicinities of) Hammer Lane, March Lane, and Pershing Avenue retail corridors. While there has also continued to be significant residential growth in north Stockton as well, south Stockton continues to be underserved by retail. As a result, these residents frequently must travel to do their retail shopping.

Project Trade Area

As shown in Figure 4-1, ESA identified all the existing and planned Wal-Mart stores in the San Joaquin County. For each store, a five-mile radius (representing a likely typical urban trade area) is shown to assist in determining an appropriate market area for the proposed retail development.

With the exception of the proposed Wal-Mart Supercenter at Eight Mile Road in northwest Stockton, the Wal-Marts shown in Figure 4-1 have relatively limited overlaps of populated area within their common areas. As is also discussed in the assessment of the competing retailers, south Stockton is currently underserved by retailers (see Figure 3-1). This is also reflected in the Wal-Mart locations–the five-mile primary trade area radius for the project site encloses an area that otherwise would not be covered by any other Wal-Marts.



SOURCE: InfoUSA, 2005; MapQuest, 2005; and ESA, 2006

Weston Ranch Towne Center . 204152

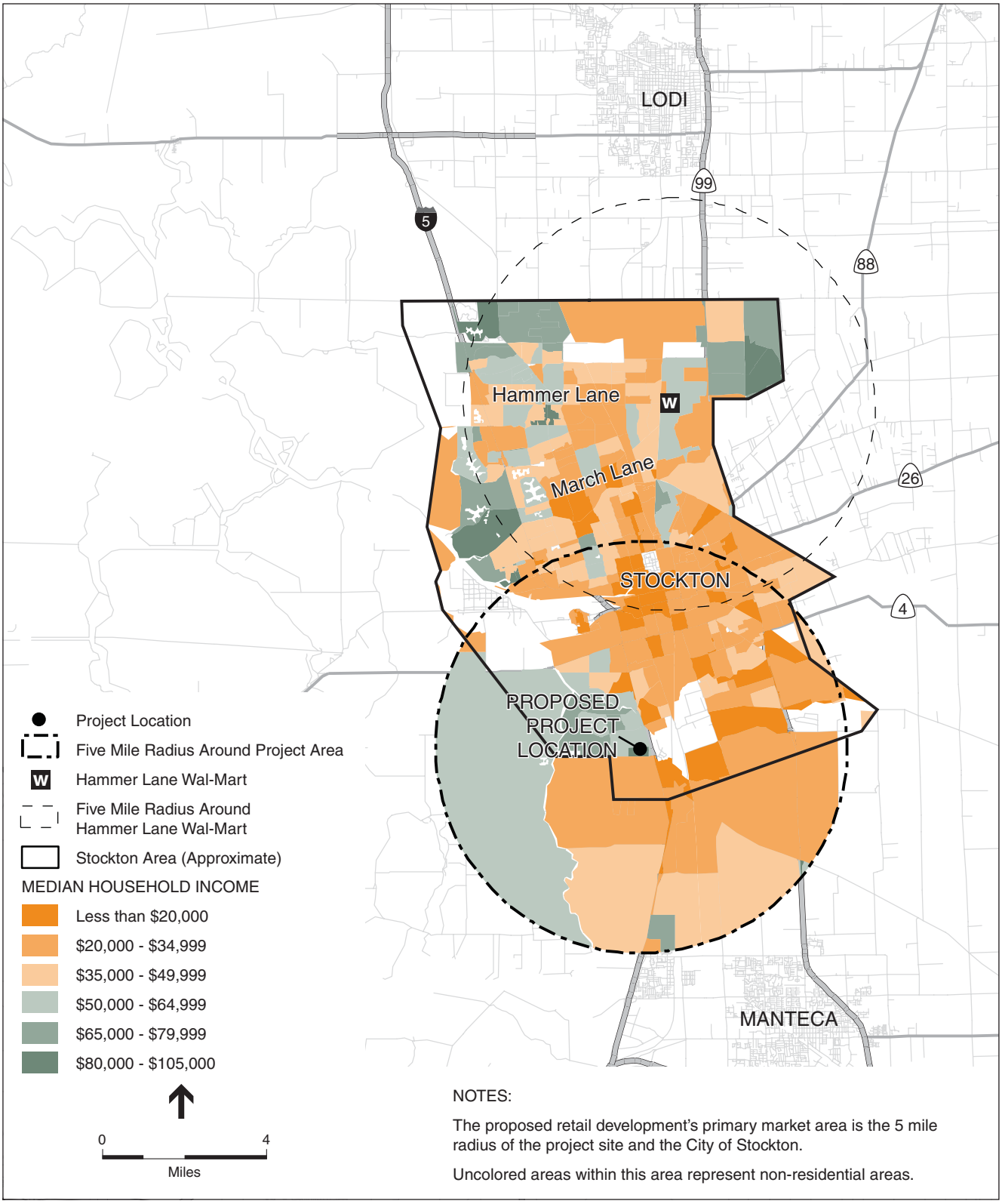
Figure 4-1
Existing and Planned Wal-Marts in San Joaquin County

As discussed earlier, since the Keyser Marston and Taussig analyses were performed, several major new retail and residential developments have been constructed in Stockton and neighboring communities. Besides the completion of the north Stockton Wal-Mart Supercenter, the most notable new retail developments are the Hammer Lane Costco, a new power center at Park West Place near Eight Mile Road (anchored by Target and Kohl's), Pacific Town Shopping Center, and redevelopment of numerous Food 4 Less stores and other grocery stores. Nearly all of this new retail development has been located in north Stockton. Furthermore, as discussed in the existing conditions section, south Stockton is currently underserved by retailers. While there has been considerable residential development in north Stockton, the housing-retail imbalance within Stockton continues and south and central Stockton remain underserved by retail stores. As a result, area residents must either travel north or out of the city to shop. While there has been significant growth in Stockton, given the continuing overall similarity of the structure of Stockton's retail market, the Keyser Marston survey findings are expected to remain applicable to the project's proposed retail development.

Based on general and site-specific considerations discussed above, for purposes of this urban decay analysis, ESA staffs' professional judgment is that the primary trade area for the proposed retail development is defined as the City of Stockton and nearby unincorporated areas within a five-mile radius of the site (see **Figure 4-2**). This trade area is broadly defined, reflecting the likely interrelationships and interdependencies of travel times that existing shopping patterns and competing retailers will have with the project's proposed retail development in south Stockton.

Furthermore, given the trade area for the proposed Supercenter (whose larger size and full grocery, as compared to a regular Wal-Mart store, may be expected to have some additional attractiveness to potential customers), the proposed retail development is expected to obtain 75 percent of its future sales from residents within its primary trade area. Given the project's location in south Stockton, its secondary trade area is expected to consist of the remaining areas of Lathrop, Lodi, Manteca, Tracy, and unincorporated county areas near the site's five-mile radius. So defined, the secondary trade area may be expected to generate 15 percent of the proposed retail development's retail sales. For purposes of this urban decay analysis, a 10 percent tertiary market area was used to represent the sales to other non-area residents.[10] Based on these sales origin projections, an estimated $200.9 million in future retail sales would be generated by the project from the primary market area of Stockton (see **Table 4-5**). The project's estimated future sales by retail category originating from Stockton residents are shown in **Table 4-6**.

[10] This approach is conservative as it will tend to increase the magnitude of projected sales impacts on local businesses because it reduces the proportion of the project's future sales expected to be obtained from out-of-region customers.



SOURCE: U.S. Census, 2000; InfoUSA, 2005; and ESA, 2006

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Figure 4-2

Primary Market Area for Proposed Weston Ranch Site

TABLE 4-5
SALES ORIGINS OF PROJECT FUTURE SALES

Market Composition	Estimated Market Share	Estimated Annual Sales
Primary market: Stockton and southern areas within 5 miles of project site	75%	$200.9 million
Secondary market: Lathrop, Lodi, Manteca, Tracy, and southern San Joaquin County	15%	$40.2 million
Tertiary Market: Non-area residents	10%	$26.8 million
Total	**100%**	**$267.9 million**

NOTES: Sales estimates are for fully established retailers and are expressed in 2008 dollar terms.

SOURCE: ESA.

Total Sales of Project-Competing Goods in Primary Market Area

The project's impact on the Stockton economy and retailers is evaluated by comparing its projected retail sales to the 2005 baseline retail conditions (existing conditions), as identified in **Table 3-6**. As can be seen from **Table 3-6**, based on the Stockton retailers operating in 2003, it is estimated that the total annual sales of the competing retail store was approximately $2,071 million (in 2008 dollars). However, this is based on the retail stores operating in 2003. To estimate the baseline conditions (i.e., the market of competing retailers for the project after it opens in mid 2008), the list of 2003 Stockton retailers was adjusted to recognize recent retailer changes (i.e., major new retailers entering or exiting the Stockton retail market between 2003 and 2005) and the new retailers reasonably expected to come to Stockton in the foreseeable future. However, in addition to such retail sector changes, the project's future retail impact may also be affected by future growth in customer retail demand (discussed later in this section).

Stockton's retail sector's baseline conditions were analyzed, based on the sector's current conditions (i.e., the reported 2003 sales data shown in **Table 3-6**) and with adjustments to incorporate changes since 2003 in the Stockton retail market from other new retailers and exiting retailers. The sales projections for the major new retail developments in Stockton since 2003 were estimated based on national sales-per-square-foot averages (Urban Land Institute, 2002).

ESA adjusted the total gross sales estimates of the Stockton retail sales to represent only those retail sales that would be potentially competitive to the project's proposed retail development and to focus on those potential retail sectors that might be affected by the project. ESA proportionally reduced the reported retail sales of goods that would not be expected to be sold by the proposed new retail development, using the more detailed San Joaquin County retail estimates of annual sales taxes (California State Board of Equalization, 2005). Table 3-6 shows the expressed annual gross retail sales in Stockton by retailers potentially competitive to the project (based on 2003 retail sales), and as such, these sales represent the reported baseline retail conditions for 2003; several new retail developments built since 2003 may be expected to affect the expected retail sales that would be projected for 2008 when the proposed project is expected to open. These new retail developments may be expected to increase the projected baseline of annual gross retail sales within Stockton. It is estimated that Stockton retailers in 2005 sold approximately a total of $2,313 million dollars of project competing retail.

TABLE 4-6
PROJECT FUTURE SALES BY RETAIL STORE CATEGORY

Retail Store Categories[a]	Future Gross Retail Sales						
	Wal-Mart	Sam's Club	Specialty Retailers	Fuel Stations	Restaurants	TOTAL	Stockton-Originating[b]
Apparel	$8.8 m	$2.6 m	$6.2 m			**$17.6 m**	**$13.2 m**
General Merchandise	$16.9 m	$25.9 m	$34.1 m			**$76.8 m**	**$57.6 m**
Food	$40.4 m	$29.1 m				**$69.4 m**	**$52.1 m**
Eating and Drinking					$21.0 m	**$21.0 m**	**$15.8 m**
Home Furnishings and Appliances	$10.5 m	$7.1 m	$6.4 m			**$24.0 m**	**$18.0 m**
Building Materials							
Auto Dealers and Auto Supplies		$0.9 m				**$0.9 m**	**$0.7 m**
Service Stations		$9.4 m		$6.4 m		**$8.7 m**	**$6.5 m**
Other Retail Stores	$19.4 m	$4.1 m	$26.1 m			**$49.5 m**	**$37.0 m**
TOTAL – ALL RETAIL	**$96.0 m**	**$71.8 m**	**$72.8 m**	**$6.4 m**	**$21.0 m**	**$267.9 m**	**$200.9 m**

[a] Sales allocations are according to State Board of Equalization retail categories (for reporting), not by type of goods.
[b] Based on market analysis, assumes 75% of project sales originating from Stockton residents (see Table 4-5)

NOTES: Sales distributions by State Board of Equalization Retail Store Categories are based on the reported 2003 taxable sales within City of Stockton. Sales figures are in 2008 dollar terms; m = millions; totals may not add up exactly due to rounding.

SOURCES: ESA; City of Stockton, 2006; Urban Land Institute, 2002.

Future Retail Demand Growth

As noted in the discussion of existing conditions, considerable new retail demand is expected to be associated with continuing population growth in the Stockton region. Using the same methodology as the leakage analysis (see **Table 3-7**), the additional potential sales growth associated with the future population growth is estimated in **Table 4-7**. It is assumed that the recent and future population growth rate for the City will be 2.65% in accordance with the current projections for the Stockton General Plan. This is a conservative assumption given that the actual Stockton growth rate was 3.1% between 2000 and 2004. In addition, it is also conservatively assumed that both new migrants and new natural population growth would have average per-capita incomes similar to the county averages. In fact and as previously noted, for new domestic migrants, future per-capita incomes would be expected to be significantly higher than the current San Joaquin County average, which is 25 percent below the state average (Factfinder, 2005). For new domestic migrants, an average per capita income level of $33,971 (in 2008 dollars) was assumed, which is comparable to (but slightly lower than) the per capita incomes of Alameda, Contra Costa and Santa Clara residents.

Based on these income assumptions and consistent with the leakage analysis, an estimated $83.6 million of new retail sales could potentially be associated with future Stockton population growth annually, as shown in **Table 4-7**. This estimate does not include the additional market growth from population growth and demographic changes occurring within the secondary market areas of Manteca, Stockton and elsewhere in San Joaquin County.[11] While future Stockton population growth will increase total retail demand by an estimated $83.6 million per year, **Table 4-8** adjusts the total demand growth to exclude demand for non-project competing goods. On this basis, it is estimated that $57.5 million of new retail demand growth of Weston Ranch competing goods will occur annually from future Stockton population growth.[12]

Potential Retail Sales Shift Impacts to Existing Stockton Retailers

The Weston Ranch project's impacts on Stockton retailers will depend on both the magnitude and the origin of its future sales. Weston Ranch's future retail sales can be generated from three principal sources: (1) new customers (i.e., typically from previously unserved markets or population growth); (2) transferred sales from the retailers' other nearby locations; or (3) sales captured from competing retailers ("sales shifts'). The following section identifies the approach and findings of the sales shift analysis used to evaluate the project's impact both by itself as well as cumulatively with other possible future major retail developments in Stockton.

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11 As discussed earlier, the allocations of sales amongst retail sector categories are estimates based on the State Board of Equalization categories. Actual sales shifts associated with future retail sales could differ, especially among the "General Merchandise," "Food," and "Other Retail Stores" retail categories.

12 Additional market growth would also be expected from similar population and demographic changes to the secondary and tertiary market areas of Manteca, Stockton, and elsewhere in San Joaquin County.

TABLE 4-7
STOCKTON RETAIL DEMAND GROWTH FROM FUTURE ANNUAL POPULATION INCREASES

Retail Categories	California Gross Sales per Capita[a]	Projected Annual Growth in Stockton Retail Demand			
		Natural Growth	Immigrants	New Migrants	Total
Average Future Population Growth[b]		*2,495*	*1,300*	*3,685*	*7,480*
Est. Average Per Capita Income[c]	*$28,310*	*$20,269*	*$20,269*	*$33,971[d]*	*$27,019*
Apparel	$489	$0.88 m	$0.46 m	$2.17 m	$3.50 m
General Merchandise	$1,712	$3.06 m	$1.59 m	$7.57 m	$12.22 m
Food	$1,926	$3.44 m	$1.79 m	$8.52 m	$13.75 m
Eating and Drinking	$1,292	$2.31 m	$1.20 m	$5.71 m	$9.22 m
Home Furnishings and Appliances	$487	$0.87 m	$0.45 m	$2.16 m	$3.48 m
Building Materials	$990	$1.77 m	$0.92 m	$4.38 m	$7.07 m
Auto Dealers and Auto Supplies	$2,163	$3.87 m	$2.01 m	$9.57 m	$15.44 m
Service Stations	$894	$1.60 m	$0.83 m	$3.95 m	$6.38 m
Other Retail Stores	$1,757	$3.14 m	$1.64 m	$7.77 m	$12.54 m
Total - All Categories	**$11,712**	**$20.93 m**	**$10.90 m**	**$51.79 m**	**$83.62 m[e]**

[a] As found in Table 3-4. Distribution of sales amongst retail categories differs from actual Stockton sales. All figures are expressed in 2008 dollar terms; m = millions
[b] The average annual future population growth is based on City of Stockton projections of a 2.65% increase annually from 2003 to 2008.
[c] Per capita income based on U.S. Census estimates, adjusted into 2008 dollar terms.
[d] Per capita income assumed to be 20% above state average based on comparative income levels of Alameda, Contra Costa and Santa Clara Counties, the counties from which most migrants have relocated.
[e] This is a conservative estimate as it does not include the 48% sales attraction by current residents' spending (see Table 3-7).

SOURCES: ESA, State Board of Equalization, 2005.

TABLE 4-8
STOCKTON RETAIL DEMAND GROWTH FOR PROJECT-COMPETING GOODS

	Stockton Gross Sales			New Stockton Retail Demand	
Retail Sector Categories	**All Retail Goods[a]**	**Project-Competing Goods[b]**	**%** (a)	**All Retail Goods[c]** (b)	**Project-Competing Goods** (c = a x b)
Apparel	$100.9 m	$100.9 m	100%	$3.5 m	$3.5 m
General Merchandise	$548.0 m	$548.0 m	100%	$12.2 m	$12.2 m
Food	$564.4 m	$564.4 m	100%	$13.8 m	$13.8 m
Eating and Drinking	$270.9 m	$270.9 m	100%	$9.2 m	$9.2 m
Home Furnishings and Appliances	$96.8 m	$96.8 m	100%	$3.5 m	$3.5 m
Building Materials	$442.9 m	~	0%	$7.7 m	~
Auto Dealers and Auto Supplies	$689.1 m	$58.6 m	8.5%	$15.4 m	$1.3 m
Service Stations	$175.1 m	$175.1 m	100%	$6.4 m	$6.4 m
Other Retail Stores	$429.5 m	$256.0 m	59.6%	$12.5 m	$7.5 m
Total - All Retail	**$3,318.7 m**	**$2,070.7 m**	**~**	**$83.6 m**	**$57.5 m[d]**

NOTES: Figures expressed in 2008 dollar terms; Totals may not add exactly due to rounding; m = millions of dollars..

[a] See Table 3-4.
[b] See Table 4-6.
[c] See Table 4-7.
[d] The sales distribution for Stockton's new retail demand is based on California averages and therefore differs from the past Stockton sales as shown Table 3-4.

SOURCES: ESA; State Board of Equalization 2005.

Approach

Sales transfers among a retailer's stores can be a significant source of a new store's future retail sales. The project's Wal-Mart Supercenter may be expected to attract some current Wal-Mart customers from other stores especially because the proposed new retail store would offer significantly expanded goods. There are currently three Wal-Marts operating in the project's primary and secondary market area with a total estimated square footage of approximately 470,000 square feet and estimated annual sales of at least $194 million.[13] Even a minor transfer of 5 percent of sales would provide more than $9.7 million in retail sales for the new store. However, no inter-store sales redistributions have been assumed to occur.

The maximum potential sales captured from competing retailers may therefore be determined by estimating the net new sales that the project would be expected to generate (after adjusting for new customer growth). For the purposes of the impact analysis, it is assumed that the current Stockton retail market is saturated and that no sales transfers would occur from other stores of Weston Ranch's retail tenants. On this basis, all net new retail sales surpluses would be expected to be derived as sales shifts from the competing Stockton retailers.

[13] Based on our regionally adjusted national average sale projections of $414 per square foot (in 2008 dollar terms).

The magnitude of the identified retail impacts has been assessed as a proportional change to the 2005 baseline conditions. These estimated percentage impacts to the 2005 baseline conditions provide an indication of the maximum magnitude of the project's retail impact that would be expected in its first year of operation. As a result, they are very conservative representations of the potential project impact and very likely overstate the actual retail impacts that might reasonably be expected to occur. This impact represents the estimated maximum potential retail impact solely attributable to the Weston Ranch project on existing Stockton retailers as of its projected opening in July 2008. It is also important to emphasize that retail sales do not in themselves cause urban decay impacts; additional causal links are required, as discussed below, for a change in retail sales to affect the potential for urban decay to occur.

Overall Sales Shift Impact

As shown in **Table 4-9**, the proposed project is expected to generate approximately $200.9 million in annual sales from Stockton residents. Compared with the $2,312.5 million baseline conditions in 2005, the project would be expected to result in up to 8.7% increase in new retail sales. If the existing Stockton retail market is saturated and there has been no growth in retail demand, then the entire $200.9 million of added retail sales from the proposed project would be expected to result in a sales shift from the other Stockton retailers.

The actual magnitude of the project's retail impact to the existing Stockton retailers will likely be less than the $200.9 million estimated above for several reasons. The impact analysis has conservatively evaluated the impacts on an annual basis, as if the Weston Ranch retail development would immediately achieve full sales levels at its opening in mid-2008. However, in actuality, it is likely that it would take six months to a year for sales to fully "ramp up," in which case, there would be a lesser retail shift impact as customers gradually alter their shopping patterns. Thus, existing retailers would likely see a more gradual reduction to their revenues over time resulting from any sales shift impacts.

If no other major new retail development occurs, then expected retail demand growth above 2005 levels from future Stockton population growth at the assumed General Plan rate would result in up to $143.8 million in new retail demand by mid 2008 (i.e. $57.5 million per year over 2.5 years). This new growth in retail demand could absorb all but $57.1 million of Weston Ranch's estimated future new sales. In this case, this "surplus" of project sales would represent the maximum potential "sales shift" impact on the existing retailers.

TABLE 4-9
WESTON RANCH IMPACT ON COMPETING STOCKTON RETAILERS (2005)

Retail Sector Categories	Competing Retailers' Sales – Baseline Conditions (2005)[a] (a)	Project's Sales (Stockton Originating) (b)	Project's Sales as % of Baseline (c = b / a)
Apparel	$124.4 m	$13.2 m	10.6%
General Merchandise	$616.9 m	$57.6 m	9.3%
Food	$609.5 m	$52.1 m	8.5%
Eating and Drinking	$270.9 m	$15.8 m	5.8%
Home Furnishings and Appliances	$112.5 m	$18.0 m	16.0%
Building Materials	~	~	~
Auto Dealers and Auto Supplies	$58.6 m	$0.7 m	1.2%
Service Stations	$177.9 m	$6.5 m	3.7%
Other Retail Stores	$341.9 m	$37.0 m	10.8%
Total – All Retail	**$2,312.5 m**	**$200.9 m**	**8.7%**

NOTES: Figures expressed in 2008 dollar terms, m = millions of dollars

[a] Baseline conditions consist of all project-competing retail sales by Stockton retailers. See Table 3-6.

SOURCE: ESA.

Over the course of the project's first operating year that it might take for the estimated retail sales shift impacts to accumulate, additional retail demand would be generated by continued Stockton population growth and demographic changes. By mid-2009, if no other new major retail development had been completed, a year after its opening any project-related net new sales "surplus" would be offset by another $57.5 million in new Stockton retail demand growth. Compared with the project's estimated net $57.1 million of unabsorbed sales shift, subsequent retail demand growth would more than offset the project's remaining "surplus" retail impact within a year of operation, therefore resulting in no future sales shift impacts on Stockton's other retailers. The offsetting growth in retail demand also suggests that even if there were some retail impacts to existing retailers (perhaps as a result of other new competing retail developments), the project's retail impact would be short-term.

The key issue for determining the project's potential for contributing to a substantial increase in urban decay conditions in Stockton is the likely consequences of the expected retail impacts. As discussed above, the projected 8.7% maximum sales shift effect is a high estimate of Weston Ranch's overall impact on existing Stockton retailers and thus provides a conservative basis for evaluating potential impacts. While this magnitude of retail sales shifts could be expected to result in some possible store closures, the impact is expected to be short term in duration and is of a type and magnitude that is within the range for typical retail sector business cycles.

Furthermore, as discussed in the market analysis, several other factors specific to existing Stockton retailers will determine their vulnerability to new competition from the proposed project or other future new retailers moving into the Stockton retail market. Existing retailers may have some control and flexibility over certain factors (e.g., their store management, types of goods and

customer service). However, other factors may be largely independent of their control or resources (e.g. convenience of their location, proximity to attractive complementary businesses). As a result, it is difficult to identify the stores most vulnerable to new competition and determine other stores likely response.

Given both the conservative assumptions used for the retail impact analysis and the comparatively short term and limited magnitude of its potential sales shift impact findings, most of the proposed project's retail impact to the overall Stockton retail sector is expected to be absorbed. As a result, relatively few businesses would be expected to be affected, especially over the longer term as future demand growth and demographic change would significantly increase Stockton retail demand.

Even if businesses were to leave the area as a result of the increased competition, based on the findings of the real estate analysis, it is anticipated that their vacated properties would be re-tenanted within a reasonable period of time – if not by other retailers then by other users. Even if some properties were to remain vacant for more extended periods of time, the underlying strength of the real estate market would ensure that owners would maintain their properties adequately and in compliance with the City's code-compliance requirements. Accordingly, even under the relatively rare circumstances that properties were to be unused for a more extended period of time, the vacated properties would not contribute Stockton's urban decay conditions.

Distribution of Retail Sales Shifts

The expected distribution of the Weston Ranch project's retail impact across Stockton's retail sales categories has also been projected to evaluate the potential effects within Stockton on the various retail sales categories. The projected allocation of sales impacts from the proposed project are based on past spending patterns and retail conditions, which are subject to change. These estimates also represent expected maximum potential retail impacts because they assume that the Stockton retail market is fully saturated at present (i.e., no sales leakage from existing Stockton's residents is occurring that could be captured by a new retailer). On this assumption, all of the project's sales would represent sales captured from the existing retailers. However, if the Stockton market were not saturated and sales leakage has been occurring then the potential impact on existing retailers would likely be reduced.

Retail Category-Specific Sales Shift Impacts

Table 4-9 shows the estimated retail impacts of the Western Ranch project distributed among the retail sector categories. Despite the data and methodological limitations previously discussed, the analysis findings provide indicators of the possible magnitude of the expected sales impacts.

Generally, across most of the retail sector categories the proportional impacts are fairly comparable in size to the overall 8.7% impact on Stockton's retail sector of competing goods. This suggests that the findings for the retail sector overall are likely to be applicable to individual categories.

The highest proportional impact on a retail sector category, the home furnishing retail sector (16.0 percent), likely corresponds to that sector's weak sales attraction, which could also indicate that the home furnishing sector currently experiences sales leakage (see **Table 3-6**). In that event, the actual retail impact on Stockton's economy would be reduced because the project would then capture current and/or future sales from current Stockton residents and workers that would otherwise leak out of Stockton. Also, it should be recognized that this sector's relatively smaller size means that the project's net new sales impact will represent a greater proportional change to baseline conditions than would occur to a larger retail sector.

The project's greatest absolute retail sales impact is expected to be on the general merchandise retail category, within which the Weston Ranch retail development is projected to add over $57 million in annual sales, an increase of approximately 9.3 percent over total 2005 sales. The second largest impact (by proportion) is projected to the "other retail" sector, where the $37.0 million in net new sales from the proposed project would represent a 10.8 percent increase over 2005 total sales.

The expected $52.1 million in net new food sales resulting from the proposed project represents an approximately 8.5 percent increase to the food retail sector. This suggests that even if the food sector is fully saturated, the proposed project would be expected to at most require a 8.5 percent sales shift among the all food retailers. Some food retailers may find it difficult to absorb such a decrease in their future sales because of the traditionally narrow profit margins for grocery stores.

Future Growth in Retail Demand

If Stockton's retail sector for project competing goods was fully saturated in 2005, as assumed in this analysis, retail demand will nonetheless continue to grow by $57.5 million in project competing goods in Stockton each year over the foreseeable future (as shown in **Table 4-8)**. By mid-2008, when the proposed project is expected to be completed, up to $143.8 million in new retail demand will have been generated (i.e. 2.5 years of accumulated annual demand growth). If no new major retail development were constructed by this year, there would be approximately $143.8 million in "excess" retail demand.

Such "excess demand" could be readily absorbed by the proposed project, thus reducing its net impact on other Stockton retailers to approximately $57.1 million. This smaller "net" retail impact corresponds to a sales shift of less than 2.5 percent sales shift impact to Stockton's competing retail sector baseline

Real Estate Analysis

Current residential real estate trends influence population growth and socioeconomic changes that will support continued strong growth in overall consumer demand by local residents. New consumers added to the market and/or changes in existing consumer demand are likely to expand activity in Stockton's retail sector. In addition to the increased retail demand effects associated with local housing growth, real estate demand for commercial properties (and especially retail properties) also directly determines the likelihood of re-tenanting properties vacated by current retailers leaving the area as a result of the competition from new retail development including the proposed project.

Stockton's housing market has been growing strongly for many years. Between 1998 and 2005, the median price of existing detached homes rose from approximately $100,000 to $350,000. Between 2004 and 2005, the median home price increased by 26.6 percent with even faster rates of appreciation in the neighboring cities of Manteca, Lodi, and Tracy (California Association of Realtors, 2005). As noted above, Stockton has experienced an increasingly large influx of new residents with generally high incomes from other parts of California and outside the state who are purchasing homes in the area.

According to the California Department of Finance, San Joaquin County's population grew by approximately 3.1 percent annually between 2000 and 2004, and approximately one-third of this population growth was based on natural population changes (i.e., births and deaths). Nearly one-half of the population growth was the result of domestic migration (i.e., by individuals relocating from other parts of California or elsewhere in the nation), while the remaining population growth came from other means of immigration (California Department of Finance, 2004).

All of these new residents represent new customers for Stockton retailers. Furthermore, the higher incomes generally associated with new residents relocating from the Bay Area will add retail spending potential to the Stockton area. Housing price increases may also positively affect commercial real estate prices by making residential redevelopment alternatives for underused properties more attractive.

San Joaquin County's proximity to the Bay Area and particularly Contra Costa, Alameda, and Santa Clara Counties is a major factor influencing its current and future economic and demographic conditions. San Joaquin County is increasingly developing as a major bedroom community for Bay Area workers. Increasingly high real estate prices in the Bay Area and continuing strong job demand in the Bay Area (in spite of the recent post dot-com economic downturn) are primary factors driving housing and population growth within San Joaquin County. While housing prices vary between communities, median housing prices in the East Bay area typically exceed $440,000 and continue to rise in price dramatically. Between March 2004 and 2005, the median price for a Bay Area home rose from $474,000 to $568,000, an increase of nearly 20 percent. In comparison, the median home price for San Joaquin County was $359,000 in March 2005 (East Bay Real Estate Directory, 2005). While San Joaquin houses remain significantly less expensive than Bay Area houses (the median house price in San Joaquin County is approximately 70 percent of those in Alameda and Contra Costa Counties), house prices in recent years have appreciated even more rapidly than the Bay Area real estate market.

Local commercial real estate specialists were contacted and when possible interviewed. In depth telephone interviews about Stockton's commercial and residential real estate markets and the city's general retail market were conducted with five local real estate brokers very familiar with Stockton: Lisa Hodgson (Colliers International); Kevin Dougherty (First Commercial); Paul Herman (Paul Herman, Inc.); Chuck Lenman (American Brokers) and John Fondale (Tri Commercial, Inc.). The Stockton real estate brokers interviewed generally agreed that both current residential and commercial real estate markets are very strong and are expected to continue to remain so. The residential market in Stockton and throughout San Joaquin County has grown vigorously since the late 1990s, and real estate brokers consulted in preparing this study

reported that currently and for the foreseeable future the commercial retail real estate market will remain strong with very low property vacancy rates (Hodgson, 2005). They expect strong local housing demand to continue and to support continued growth in both general commercial and retail real estate demand (Dougherty, 2005).

Strong demand for retail space in particular is evident in CB Richard Ellis's most recent annual real estate report (CB Richard Ellis, 2005), which estimates that Stockton's current retail vacancy rate is less than 1 percent (excluding the former Wal-Mart store on 3701 Hammer Lane). Similarly, the retail real estate markets in Manteca and Tracy are estimated to have 1 percent and 0.5 percent vacancy rates, respectively. CB Richard Ellis projected that vacancy rates would continue to decrease throughout 2005, resulting in increased net absorption, lease rates and new construction activity (CB Richard Ellis, 2005). Similarly, Grubb & Ellis's retail property assessment (Grubb & Ellis, 2004) for Northern California notes that the retail real estate market has generally been strong, and it emphasizes in particular strong investor demand for grocery-anchored centers. While it acknowledges the potential competitive effects of large-scale retailers, the report concludes that the future economy may be expected to provide continued support to the commercial real estate market.

These indicators suggest that the current strong demand for commercial retail properties in Stockton will continue for the foreseeable future. Vacancy rates are low and expected to remain so; since real estate demand is strong then vacated properties will likely be re-tenanted or redeveloped. Over the last few years, several major retail locations vacated by Stockton retailers have been successfully re-tenanted shortly after coming on the real estate market. Within approximately a year after Montgomery Wards bankruptcy resulted in its store closure at Sherwood Mall, Best Buy occupied the location in mid-2002. Similarly, following Wal-Mart's departure from its former Hammer Lane location, Lifestyle Furniture purchased the site and has re-tenanted the building (although the business subsequently closed in September 2006).

Lisa Hodgson at Colliers International also reported that the K-Mart on Pacific Avenue is expected to close in the near future and that there are already plans for redevelopment of the site for a "Lifestyle Center" anchored by a Whole Food Grocery that would cater to higher-income customers (Hodgson, 2005).[14] Re-tenanting can occur by several different means including occupancy by new retailers with similar products and customers but also adaptive re-use by other businesses (such as service businesses or offices). In addition, the strong real estate market also suggests that site redevelopment may be expected, particularly for well-situated, in-fill properties within north Stockton.

The above real estate analysis determines that there is currently strong demand and low vacancy rates for both commercial retail and residential properties within Stockton. The associated continued rapid appreciation in housing demand and immigration of new residents is also expected to continue for the foreseeable future. These findings suggest that there will likely be strong demand for any recently vacated buildings by businesses leaving Stockton as a result of the Weston Ranch project's direct competitive impact. It expected that most new vacated building

[14] K-Mart officials contacted would not confirm the store's future closure.

would likely be re-tenanted or redeveloped (although their use may not necessarily be as commercial retail). The findings also provide evidence supporting continue local housing and demographic change within Stockton for the foreseeable future that will add retail demand growth to local retailers.

While the extent of potential future business closures associated with the greater retail impact from the combined potential future retail development could not be determined, the increased magnitude of the potential additional retail sales may be expected to have commensurate greater impact on existing businesses. The increase in retail impact could result in greater vacancies that would add to the supply of available properties. If the demand for the properties is less than the new supply, this would lengthen the duration that vacant properties could be on the market and could cause property prices to adjust with price decreases. However, given strong underlying real estate demand conditions (both for commercial retail and other properties) then it might be expected that provided adequate price adjustment occur then most of the vacated properties would in time be re-tenanted. In any case, any such price adjustment may be expected to be relatively minor (especially in the context of the property appreciation over the last five years) and would not be expected to be so great as to reduce owners' economic incentives or financial ability to maintain their properties adequately.

Vacant Properties Analysis

While the magnitude and extent of the additional retail sales that full near-term build-out of these potential retail developments could be considerable, it is inheritently difficult to identify the specific businesses and areas where any vacancies would occur. As discussed in the retail impact analysis, numerous factors and variables relating to Stockton's existing businesses, in retail customers and the potential retail developments are unknown or poorly defined. Furthermore, the complex inter-relationships of store locations, customer preferences, business management responses and extent of current retail market saturation add to the difficulty in identifying the nature and extent of any vacancies resulting from the project's direct or combined retail impact on Stockton's existing retailers. As a result, it may not be reasonably foreseeable what businesses and what locations would be vacated as a result of the retail impacts, in which case, it will not be possible to properly ascribe urban decay impacts from the project and the potential future new major retail developments.

The attribution of urban decay impact findings for vacant properties would also require additional causal effects to occur. Vacant properties, even long-term vacant properties, do not, in and of themselves, necessarily result in impacts associated with urban decay. If adequately managed and maintained, underused or underdeveloped properties may persist in urban areas without contributing to the cycle of adverse physical conditions that result in, and are indicative of, urban decay.

As discussed later in the Significance Criteria section of the Impacts and Mitigation Chapter, typical urban decay indicators such as abandoned and deteriorating properties, litter and graffiti, and unauthorized property uses can be avoided if owners adequately maintain their property

(which is generally advisable for owners wanting to maintain the value of their properties). Such urban decay impacts may also be expected to result when property values are not appreciating and, as a result, owners see these property management costs as unrecoverable and/or unnecessary expenses. However, given Stockton's recent and foreseeable strong commercial real estate market, it seems unlikely that property owners would generally permit their properties to deteriorate in a manner that would result in urban decay impacts.

In rural communities, a major concern associated with discount retailers' impact on the community has focused on declining downtown areas as consumers are diverted to shop at stores on the town or city's periphery. However, while similar issues can affect more urban communities, downtown areas in larger communities and local economies will have more potential and opportunities for adaptation and redevelopment. Provided local zoning and planning ordinances permit such re-use and sufficient economic development resources are available, downtowns with their varied building types and sizes can be used for a wider variety of re-uses. Stockton's recent and ongoing downtown revitalization initiatives are examples of the possibilities for downtown adaptation and redevelopment.

In more urban communities, such as Stockton, urban decay concerns are generally more likely associated with "greyfield" or "ghost box" impact. "Greyfields" are typically a declining regional mall and "ghost boxes" are abandoned large-scale retail stores or retail buildings. Building obsolescence, local population change, and general retailing trends such as those favoring "power-center" style developments can have major influences on the type, location, and duration of commercial retail vacancy. Nationally "greyfields" and "ghost boxes" are increasingly occurring (Price Waterhouse Coopers, 2001) and can be contributors to urban decay. While numerous studies have found an association between neighborhood decline and urban decay with the incidence of abandoned and decaying buildings (Greenberg and Popper, 1994), the causality is not clear and may depend on the specific local circumstances. Generally, vacant buildings are often associated with declining populations and rising unemployment and may further contribute to local disinvestment. The extent and persistence of vacant properties however, can also be importantly influenced by other factors. In areas (unlike Stockton) where land is plentiful and readily developed, it will be more financially attractive to develop a new site than redevelop an existing location (Armstrong, 2001). Local land use regulations and other local ordinances can also have a significant role in encouraging retailers to redevelop commercial locations.

The important role that other factors independent of the project can have in determining local land use and urban deterioration should also be recognized. As discussed earlier, local planning, oversight and economic development efforts can have a major influence both property re-tenanting and physical deterioration occurring within the City. Stockton's extensive economic development efforts and recently completed projects (particularly in the downtown area) are significantly improving the City of Stockton past blight conditions, fostering new businesses and adding major infrastructural improvements and attractions to improve the quality of life within Stockton. City agencies' efforts to foster building preservation and infrastructural can have an important effect on attracting and retaining businesses and residents. City and County government efforts at better planning, marketing and developing effective business incentives may be expected to have a positive contribution in addressing existing and potential urban blight

within the city. In particularly, the expanded City of Stockton Neighbor Services Section has improved code compliance programs and enforcement that is directly reducing existing urban blight within much of the City. These programs and initiatives may be expected to have a more effective potential role affecting the extent of urban decay within Stockton by fostering new businesses, residents and investment for the City. In contrast, Stockton's potential future retail developments will have a more indirect, contingent and undirected effects on the City's urban decay conditions.

The important and more direct contribution that these City programs and other non-project related factors can play in determining the City's urban decay conditions also weakens the demonstrable casual link between the project's economic competition and any adverse physical environmental effects (i.e., urban decay impacts) within Stockton.

Project Impact Analysis

Under criteria based on the CEQA Guidelines and the professional judgment of City staff and consultants, a project would be considered to have a significant urban decay impact if it would result in the following:

- A substantial adverse change in the physical condition of any shopping area(s) in Stockton.

Urban decay impacts result in physical deterioration sufficient in magnitude and extent to diminish the proper use of the properties affected. Physical changes typically indicative of urban decay may include (but are not limited to) higher than average business vacancies; abandoned and deteriorating properties; inadequately maintained buildings (frequently chained off by unsightly chain-linked fencing; widespread graffiti, litter, and trash; unkempt trees and shrubbery and excessive weeds; parked trucks and long-term unauthorized use of property and parking lots; and homeless encampments.

Several interrelated causal links must be demonstrated to properly establish and ascribe future urban decay impacts on a retail development from a proposed new project. As the Court of Appeal for the recent Bakersfield urban decay ruling states in its findings:

> "CEQA is not a fair competition statutory scheme." *(citation omitted).* Therefore, the economic and social effects of proposed projects are outside of CEQA's purview *(unless they will lead to adverse physical changes in the environment* [italicized qualification added]*)*.

The court's judgment also states that (1) it "explicitly reject(s) certain philosophical and sociological beliefs that some of the parties have vigorously expressed" and (2) existing CEQA case law clearly establishes that construction of a new shopping centers does not in and of itself trigger a conclusive presumption of urban decay. Rather, a determination that a significant urban decay impact is likely to result from a proposed project relies upon a showing that the following sequence of events is likely to occur:

- The project would introduce new retail competition that would cause existing retailers to go out of business.
- The failed retailers' vacated properties would not be re-tenanted (or otherwise reused) due to insufficient real estate demand.
- These untenanted properties would be vacant for prolonged periods of time and would be abandoned or otherwise permitted to deteriorate significantly by their owners.

In summary, the findings of the urban decay analysis conclude that a direct short-term retail impact to existing retailers of up to $200.9 million could result from the project. This impact would, at most, represent up to an 8.7 percent shift in Stockton's competing retail sales compared to 2005 existing conditions. This is a conservative impact assessment since it assumes that no retail sales leakage among current Stockton residents or workers would absorb any of the estimated net new sales.

Taking growth in demand into account, the proposed project is expected to result in at most a 2.5% sales shift affecting Stockton retailers and thus to have no or only negligible effects in terms of business closures. The real estate analysis suggests that the strong residential and commercial retail markets will likely ensure that any vacated retail properties would be re-tenanted or redeveloped. In addition to the probability that the project would not result in long-term vacancies, vacancies in themselves do not cause urban decay impacts. Additional conditions are necessary for urban decay to occur, including owner neglect that leads to physical deterioration, the absence of government code enforcement and regulatory programs, lack of investment in economic redevelopment, stagnant or declining property values and a general decline in consumer demand. These factors are absent in the Stockton region at present and for the foreseeable future.

SECTION 5
Cumulative Urban Decay Analysis

The year 2011 has been used for the cumulative impact analysis because all reasonably foreseeable retail development projects are expected to be fully constructed and operational by that date. Future development beyond 2011 is currently unknown. Moreover, the uncertainty inherent in economic forecasting increases with the forecast period horizon. The geographic area for the cumulative impact analysis is City of Stockton, since it is the primary area of concern for any incidence of potential future urban decay impacts.

Sales by Potential Future Stockton Retail Developments

According to the City of Stockton Planning Department, several major new retail developments that would compete with the Weston Ranch retail development are considered probable:

- **The Lodi Wal-Mart Supercenter Relocation.** This planned shopping center development would construct 340,000 sq.ft. of commercial retail with a variety of retail sales and services.[15] The major retailer for the proposed project would be a Wal-Mart Supercenter, which would occupy a 226,868-square-foot new Supercenter to replace its existing Lodi Wal-Mart store (120,352 square feet).

- **Spanos Park West (Phase 2)**. A new Wal-Mart Supercenter and Sam's Club is planned for construction next to the recently completed Spanos Park West (Phase 1) shopping center (located at Eight Mile Road and Interstate 5 in northwest Stockton). If approved, up to 615,486 sq.ft. of new development is proposed under the project of which 103,000 sq.ft. would consist of Auto Dealers that would not compete with the project. Therefore, 512,486 sq.ft. of the new development proposed for Spanos Park West (Phase 2) would potentially compete with Weston Ranch.

- **Cannery Park.** A 450-acre mixed-use development project is proposed for the Cannery Park property, which lies directly southwest of the Eight Mile Road and Route 99 interchange in northeast Stockton. The projected potential maximum of approximately 500,000 sq.ft. of new retail (Stockton, 2006) is assumed that the retail development would consist of one similar large-scale discount store (assumed to be approximately 150,000 square feet) with the remaining retail composed of specialty retailers.

[15] Up to 13,160 sq.ft. of this new Lodi development could include non-retail uses (e.g. hairdressers or financial institutions that would not be competitive with the project.

- **Origone Ranch.** The site is situated directly southwest of the Hammer Lane and Route 99 interchange in northeast Stockton. Due to the lack of information on the Origone Ranch development, for the purposes of the impact analysis it is assumed that its future commercial development would be of a comparable type and size as that planned for Cannery Park. According to the City of Stockton Planning Department, the Origone Ranch project is proceeding rapidly and may be completed as soon as July 2009.

These potential new retail developments represent the likely major new retail developments that could contribute to the project's future cumulative impact on Stockton. Projected sales for these four future retail developments are shown in **Table 5-1**. The Lodi Wal-Mart Supercenter project's future sales are estimated to be $125.8 million in competing sales (ADE, 2004). The future sales projections for the other potential major new retail developments are based on national sales per square foot averages consistent with the projections for Weston Ranch. It is estimated that the new Spanos Park West Phase 2 project will generate approximately $199.1 million in retail sales annually. Projected sales for the proposed Cannery Park and Origone Ranch retail development are approximately $154.2 million.

TABLE 5-1
SALES BY POTENTIAL FUTURE MAJOR RETAIL DEVELOPMENTS

	Retail Sales by Future Major Retail Developments in Area				
State Board of Equalization Category	**Lodi Wal-Mart Expansion[a]**	**Spanos Park West (Phase 2)**	**Cannery Park**	**Origone Ranch**	**Total**
Planned Area (Square Feet)	*326,806*	*512,486*	*Approx. 500,000*	*Approx. 500,000*	*Up to 1,839,300*
Estimated Completion	*October 2008*	*July 2008*	*Jan 2009*	*July 2009*	
Apparel	$8.2 m	$14.1 m	$13.6 m	$13.6 m	$49.5 m
General	$15.8 m	$54.2 m	$54.1 m	$54.1 m	$178.2 m
Food	$44.9 m	$74.1 m	$26.0 m	$26.0 m	$171.0 m
Eating and Drinking	$6.0 m	$20.6 m	--	--	$26.6 m
Home	$10.0 m	--	$14.9 m	$14.9 m	$39.8 m
Building	--	--	--	--	--
Auto Dealers	--	$0.8 m	--	--	$0.8 m
Service Stations	--	$2.4 m	--	--	$2.4 m
Other Retail	$41.0 m	$33.0 m	$45.6 m	$45.6 m	$165.2 m
Total	**$125.8 m**	**$199.1 m**	**$154.2 m**	**$154.2 m**	**$633.5 m**

NOTES: Figures expressed in 2008 dollar terms; m = millions of dollars; Totals may not add up exactly, due to rounding.

[a] Assumes full increase in retail square footage and sales except for the 13,160 sq. ft. for non-retail services.

SOURCES: ESA; City of Stockton, 2005; Urban Land Institute, 2002

If all four of these potential retail development projects were constructed, together they would be expected to generate approximately $633.5 million in new retail sales annually. The expected distribution of new sales among the major retail categories is also shown in **Table 5-1**. The majority of competing retail sales are projected to be food sales ($171.0 million), general merchandise sales ($178.2 million), and other retail ($165.2 million).

A considerable portion of these retailers' future sales may be expected to be generated from their secondary and tertiary market customers (i.e., non-Stockton residents) (see the market analysis section). As a result, only a portion of these new future retailers' sales will compete with the project in serving Stockton residents' retail demand. Using a reduced market area assumption of 15 percent for these customers, as shown in **Table 5-2**, approximately $538.5 million of these major new future retailers' total $633.5 million of new sales would be expected to be directly competitive with the proposed Weston Ranch retail development and existing Stockton retailers.

TABLE 5-2
STOCKTON ORIGINATING SALES BY POTENTIAL FUTURE MAJOR RETAIL DEVELOPMENTS

	Potential Sales by Future Major Retail Developments	
State Board of Equalization Category	**Total Project-Competing[a]**	**Stockton-Originating[b]**
Apparel	$49.5 m	$42.1 m
General	$178.2 m	$151.5 m
Food	$171.0 m	$145.4 m
Eating & Drinking	$26.6 m	$22.6 m
Home Furnishings	$39.8 m	$33.8 m
Building	--	--
Auto Dealers	$0.8 m	$0.7 m
Service Stations	$2.4 m	$2.0 m
Other Retail	$165.2 m	$140.4 m
Total	**$633.5 m**	**$538.5 m**

NOTES: Figures expressed in 2008 dollar terms; m = millions of dollars; Totals may not add up exactly due to rounding.

[a] See Table 5-1.
[b] Estimated Stockton sales, conservatively assuming 85 percent of sales generated in Stockton.

SOURCE: ESA.

The 2011 retail sector conditions for Weston Ranch competing sales in 2005 are shown in **Table 5-3** in the Baseline Stockton Retail Sector column. The estimated total competing sales are approximately $2,312.5 million per year (in 2008 dollar terms).[16] If all the future new retail developments identified in **Table 5-1** were developed as assumed, the combined impact of these retailers plus the proposed project would add $739.4 million annually to total 2005 retail sales by existing Stockton retailers. This cumulative retail impact would represent approximately a 32.0% increase to Stockton's existing retail sector.

[16] This does not include the additional retail demand for project competing goods expected to be brought to Stockton retailers by new Stockton residents (see Table 4-17). If a major proportion of this new retail demand is captured by Stockton retail business, then the actual 2008 baseline conditions would correspondingly be higher.

TABLE 5-3
CUMULATIVE RETAIL IMPACT ON STOCKTON RETAILERS – 2005 BASELINE

	Gross Sales of Project-Competing Goods				
		Future Stockton-Originating Sales			
Retail Sector Categories	**Competing Stockton Retailers – Baseline Conditions (2005)[a]** (a)	**Potential New Retailers (2005-11)[b]** (b)	**Project Sales[c]** (c)	**Total Potential Cumulative Sales** (d = b + c)	**% of Baseline Conditions** (e = d / a)
Apparel	$124.4 m	$42.1 m	$13.2 m	$55.3 m	44.5%
General Merchandise	$616.9 m	$151.5 m	$57.6 m	$209.1	33.9%
Food	$609.5 m	$145.4 m	$52.1 m	$197.5 m	32.4%
Eating and Drinking	$270.9 m	$22.6 m	$15.8 m	$38.4	14.2%
Home Furnishings	$112.5 m	$33.8 m	$18.0 m	$51.8 m	46.0%
Building Materials	~	~	~	~	~
Auto Dealers	$58.6 m	0.7 m	$0.7 m	$1.4 m	2.4%
Service Stations	$177.9 m	$2.0 m	$6.5 m	$8.5 m	4.8%
Other Retail Stores	$341.9 m	$140.4 m	$37.0 m	$177.4 m	51.9%
Total - All Retail	**$2,312.5 m**	**$538.5 m**	**$200.9 m**	**$739.4 m**	**32.0%**

NOTES: Figures expressed in 2008 dollar terms; m = millions of dollars; Totals may not add up exactly due to rounding.

[a] See Table 3-6.
[b] See Table 4-11.
[c] See Table 4-6.

SOURCES: ESA.

It should be recognized that distribution of the future cumulative retail impact among the retail sector categories is uncertain due to the limited availability of information on future retail development. However, given the assumed allocation of the sales projections, the analysis indicates that the largest retail impact would occur in the general merchandise sector where over $209 million in additional sales would be expected. The retail impacts to the food and "other retail" sectors would be only slightly less at $197.5 million and $177.4 million, respectively. The greatest proportional change would occur to the "other retail" sector, where the projected total new sales would be nearly 52% of the 2005 sales. The central issue for the urban decay analysis is whether substantial changes in the level of physical urban decay in Stockton would be expected to result from these cumulative sales increases.

Major increases in retail sales in a local economy will not in and of themselves result in adverse impacts on existing retailers. If the existing retail market is leaking sales out of the economy or major new retail demand growth is expected that would offset the new competition, then no retail impacts would occur. The key factor in determining the severity of adverse retail impacts (and hence the likelihood of vacancies by existing businesses closing down) is whether there are "sales-shift" impacts that could redirect sales to such an extent that some businesses are forced out of the market.

In the case of the cumulative impact analysis, the most meaningful indication of the likely effect on Stockton's existing businesses is the degree of imbalance between future retail sales and demand. **Table 5-4** provides an assessment of the potential sales shift in 2011 (i.e. when all the currently foreseen major future retail developments are assumed to have been completed and would be fully operational).

TABLE 5-4
CUMULATIVE RETAIL IMPACT TO STOCKTON RETAILERS – 2011 BASELINE

	Estimated Gross Sales of Project-Competing Goods				
Retail Sector Categories	**Baseline Stockton Sales[a] (2011)** (a)	**Potential Cumulative New Sales (2005-11)** (b)	**Stockton Retail Demand Growth [b] (2005-11)** (c)	**Future Sales Shift Impact (2011)** (d = b – c)	**% of Baseline Conditions** (e = d / a)
Apparel	$145.3 m	$55.3 m	$21.0 m	$34.3 m	23.6%
General	$690.4 m	$209.1	$73.5 m	$135.6 m	19.6%
Food	$692.3 m	$197.5 m	$82.8 m	$114.7 m	16.6%
Eating and Drinking	$326.5 m	$38.4	$55.6 m	-$17.2 m	-5.3%
Home Furnishings	$133.5 m	$51.8 m	$21.0 m	$30.8 m	23.1%
Building Materials	~	~	~	~	~
Auto Dealers	$66.6 m	$1.4 m	$8.0 m	-$6.6 m	-10.0%
Service Stations	$216.2 m	$8.5 m	$38.3 m	$29.8 m	13.8%
Other Retail Stores	$387.0 m	$177.4 m	$45.1 m	$132.3 m	34.2%
TOTAL	**$2,657.8 m**	**$739.4 m**	**$345.3 m**	**$394.1 m**	**14.8%**

NOTES: Figures expressed in 2008 dollar terms; m = millions of dollars; Totals may not add up exactly due to rounding.

[a] 2011 baseline conditions based on 2005 baseline (Table 3-6) adjusted to include future retail demand growth (column c).
[b] Future retail demand growth based on Table 4-8 and six years of annual growth from 2005 to 2011.

SOURCES: ESA.

The discussion in the preceding section concludes that implementation of the proposed Weston Ranch project would not in itself cause significant urban decay impacts, in part because the retail sales shift effects of the project would be minor. Few (if any) existing retail businesses would be expected to close as a result of competition from the project and in the event of any closures, the strong commercial real estate market in Stockton would prevent extended retail facility vacancies.

After project build-out any retail facilities that became vacant due to business closures would likely be re-tenanted, either by another retailer or a different type of tenant, or redeveloped in a relatively short period of time. However, the cumulative impact on existing retailers of the proposed project together with other retail projects considered reasonably foreseeable would be greater than the effects of the project alone, especially if the new retailers entered the Stockton market concurrently or in rapid succession in the near term future. In that case, the cumulative effects of new retail sales competition, including the proposed project, could be expected to result in existing retail businesses leaving the market.

The retail sales shift analysis of 2011 conditions suggests that over the longer term, any cumulative impacts may be expected to decrease in magnitude as a result of future retail demand growth sales. However, given the magnitude of the projected imbalance in 2011 between retail supply and demand, the cumulative sales impacts of the proposed project together with other probable retail development could result in closures of existing businesses. Although the real estate market in Stockton is strong and will likely remain so, it is uncertain whether demand for retail space would be sufficient to ensure re-tenanting (by retail or other uses) or redevelopment of all or most properties vacated by business closures due to the cumulative effects of the proposed project and other future retail centers.

As noted previously in the discussion of the urban decay impact significance criteria, adverse effects of increased competition on existing Stockton retailers are not in themselves sufficient to cause an increase in blight, or more specifically, a substantial adverse change in the physical condition of existing Stockton shopping areas. For a significant urban decay effect to result, the general causal chain described in the discussion of significance criteria must occur. Schematically, the causal chain begins with retail market effects that lead to business closures. But business closures alone do not produce urban decay. Business closures must first result in vacancies and then these vacancies must lead to physical deterioration of property. There is abundant evidence that at present and in the future, the strong commercial real estate market in Stockton makes rapid re-tenanting or conversion to a new use of vacant facilities highly likely.

If longer term property vacancies were to occur as a result of cumulative retail development including the proposed project, additional causal effects would be necessary for urban decay impacts to result. Vacant properties, even long-term vacant properties, do not, in and of themselves, necessarily result in the impacts associated with urban decay. If adequately managed and maintained, underused or underdeveloped properties may remain in urban areas without contributing to the cycle of adverse physical conditions that result in, and are indicative of, urban decay. Typical urban decay indicators such as abandoned and deteriorating properties, litter and graffiti, and unauthorized property uses can be avoided if property owners adequately maintain their properties (which is generally advisable for owners wanting to maintain the value of their properties). Such urban decay impacts may also be expected to occur when property values are not appreciating and, as a result, owners see these property management costs as unrecoverable and/or unnecessary expenses. In addition, the City's substantial urban redevelopment programs and its recently expanded code compliance and enforcement efforts are all additional factors that are likely to prevent or at least minimize urban decay even if there were to be an increase in vacant retail space due to competitive pressures.

In addition to these considerations, it is important to emphasize that the cumulative scenario is in effect a worst case analysis of future conditions for the Stockton retail sector because it assumes that all of the future projects considered reasonably foreseeable for CEQA purposes will be constructed as and when proposed; in fact, the facility sizes and buildout years assumed in this analysis are extremely optimistic. As a result, the analysis findings likely represent the upper limit of the potential magnitude of cumulative competitive impacts to the existing Stockton retail sector.

The assumptions used in this analysis include:

- *The Stockton retail market was fully saturated under the 2005 baseline conditions*. The retail impact analysis determined a maximum estimate of the potential sales shift impact since it conservatively assumes that under the 2005 existing conditions Stockton's retail market was fully saturated. Therefore, none of the new retail sales would be absorbed by current residents or workers. However, if the current Stockton retail market is not already saturated, then some of the projected new retail sales surplus would be absorbed by Stockton residents who are otherwise "leaking" their sales to other non-Stockton retailers. As discussed in the real estate analysis section, many of the local real estate experts interviewed stated their view that the Stockton retail market was not fully saturated and was still in a process of "catching up" after many years of stagnation in retail development during the 1990s. The respondents also suggested that the "under-retailing" of south Stockton and, to a lesser extent, central Stockton currently results in significant retail leakage by its residents.

- *No future growth in Stockton residents' real income levels occurs.* Current average Stockton per capita income is approximately 71% of California average. Successful economic development programs and improvements in Stockton's local economy could improve local residents' income levels and thereby increase local retail demand. In that event, the projected sales shifts to new retailers would be reduced as a greater proportion of the potential new retail sales could be absorbed.

- *Current residents' net worth and purchasing power will not increase.* Home value appreciation and increased refinancing opportunities have significantly raised most California home owner's effective income (i.e., disposable income available for retail purchases). This factor may help explain the apparent considerable sales attraction by existing Stockton retail identified in the leakage analysis. Continued increases in effective income (i.e., from continued home appreciation) could also increase future retail demand.

- *Build-out and operation of all the new retail development projects considered probable will occur by 2011 and as assumed by the analysis.*

- *Most (85 percent) of the proposed Lodi Wal-Mart Supercenter and other potential new Stockton retailers' future sales total sales would be obtained from the proposed project's primary market (i.e. Stockton residents).*

- *The retail analysis is limited solely to those other retailers selling project-competing goods*.

- *Recently vacated stores would generally be re-tenanted by competitive retailers.*

In addition to these assumptions, which result in a worst-case analysis of the competitive effects on existing retailers of cumulative retail development, a number of uncertainties make it difficult to determine whether an increase in business closures in Stockton by 2011 would result in an increase in urban blight. These uncertainties include the following:

- *Existing retailers' profitability/vulnerability to increased competition*. The complex inter-relationships of store locations, customer preferences, business management responses and extent of current retail market saturation add to the difficulty of identifying the nature and extent of vacancies that could result from cumulative retail sales impacts.

- *Existing retailers' likely business response to new competition.* The extent that specific retailers can withstand and respond to any cumulative future sales shift losses will depend on several factors. Each store's profitability will be an important factor determining the extent to which it can absorb sales reductions and yet continue to generate sufficient earnings. Specific businesses (and even individual stores) will have differing abilities to adapt their management, operations, and fixed costs to respond to sales reductions from sales shifts resulting from increased competition. The competing businesses' corporate management assistance, investment and other resource may help some business to reposition themselves or otherwise respond so as to limit the competitive effect of the project to their business. Similarly, while sales shift impacts could be a major and/or deciding factor in a given retailer's continued operation, other independent factors (e.g., poor management, long-term deferred maintenance, building obsolescence, corporate performance) may also affect and determine their future financial performance.

- *Allocation of retailer and future customer sales across retail sector categories*. As discussed earlier in the analysis, due to the differences California State Board of Equalization retail categories used for tax reporting purposes and the actual categories of retail goods sold, allocation of sales by different retailers is necessarily approximate. Furthermore, the actual distribution of future retail sales could differ considerably from the existing distribution.

Finally and as previously noted, a number of factors affect whether increased retail competition from the proposed Weston Ranch project together with other probable future projects would result in an increase in urban decay in Stockton, and specifically in adverse physical effects to any existing shopping area. These factors include the following.

- *Strong demand for commercial and residential real estate.* Based on interviews with local real estate brokers, the real estate analysis concludes that there is currently relatively strong demand for both commercial retail and residential properties within Stockton, as reflected in low vacancy rates, and that demand will continue to be strong throughout the cumulative analysis period. Since the demand for commercial retail is strong and will likely continue to be so, any buildings vacated by businesses leaving Stockton as a result of the cumulative competitive effects would most likely be re-tenanted over time. Re-tenanting could involve both new retailers and adaptive re-use by other businesses such as service businesses or offices. The strong real estate market also suggests that site redevelopment may occur, particularly for well-situated, in-fill properties in north Stockton. The strong residential market, which is expected to generate increased future retails demand, could also create demand for in-fill redevelopment of former retail areas in Stockton.

- *Cumulative retail sales impacts could result in increased retail space vacancies that would add to the supply of available properties.* If the demand for the properties were less than the new supply, vacant properties could be on the market longer and prices might adjust downward. However, in that event, reduced rents coupled with continuing strong demand would encourage re-tenanting or re-use.

- *Location and extent of any resulting vacancies.* The influence that any increase in long term vacancies may be expected to have on urban decay in Stockton may be affected by both the magnitude and location of any vacancies. Generally, clustering of vacancies would be expected to increase the potential for urban decay conditions to develop. If any future vacancies are instead distributed throughout the entire community, new urban decay would be less likely to develop.

- *Property Neglect*. Property vacancies, even long-term vacancies, do not, in and of themselves, necessarily result in urban decay impacts. If adequately managed and maintained, underused or underdeveloped properties may persist in urban areas without suffering physical deterioration. Typical urban decay indicators (such as abandoned properties, litter and graffiti, breakage and disrepair, and unauthorized property use) can be avoided if property owners adequately maintain their properties, which they are likely to do if, as in Stockton, their properties are holding their value or appreciating in value.

- *Role of Government Agencies in Urban Decay Abatement and Economic Development.* Local government planning, oversight and economic development programs can have a major effect both on property re-tenanting and the prevention of blight. Stockton's extensive economic development efforts and recently completed projects (particularly in the downtown area) are significantly improving past blighted conditions in the City, fostering new businesses and adding major infrastructure improvements and attractions to improve the quality of life within Stockton. City agencies' efforts to foster building preservation and infrastructure can have an important effect on attracting and retaining businesses and residents. City and County government efforts at better planning, marketing and developing effective business incentives may be expected to have a positive contribution in addressing existing and potential future urban blight within the city. In particularly, the expanded City of Stockton Neighbor Services Section has improved code compliance and enforcement capabilities that are focused on reducing existing urban blight conditions in the City. These programs and initiatives will continue in the future and are expected to prevent or retard any ultimate urban decay effects of increased retail competition from the project and other probable retail developments.

In summary, the findings of the urban decay analysis conclude that up to a $739 million cumulative retail impact of additional retail sales competition to existing retailers could result from the project and other potential future new Stockton retailers. This impact could represent up to a 14.8 percent short term sales shift in Stockton's competing retail sales to the Stockton's future 2011 retail sector. This is a highly conservative assessment of the future cumulative impact due to the many conservative assumptions and methodology used in the urban decay impact analysis which have been identified and discussed previously. As a result, this figure represents a "worst case" impact estimated on the assumption that the four planned large retail projects would be completed and fully operational. The analysis assumes that no retail sales leakage among Stockton residents or workers currently exists that would absorb any of the projected sales shift.

While future sales shift impacts of the magnitude of 14.8 percent could result in business closures among competing retailers, the real estate analysis suggests that Stockton's relatively strong residential and commercial retail markets will likely ensure that most of any vacated retail properties would be re-tenanted or redeveloped. In addition, even under the unlikely possibly that the project has the cumulative effect of resulting in long-term vacancies, vacancies in themselves do not cause urban decay impacts. Additional conditions are necessary for urban decay to occur, including owner neglect that leads to physical deterioration, the absence of government code enforcement and regulatory programs, lack of investment in economic redevelopment, stagnant or declining property values and a general decline in consumer demand. These factors are absent in the Stockton region at present and for the foreseeable future.

Given the major contributory role that other non-project factors may potentially have both determining any future retail impacts to existing retailers and on Stockton's urban decay conditions, the causal linkage between any future cumulative retail impacts of the project on existing retailers is not clear, especially since other factors can have a greater role in influencing the urban decay conditions within Stockton. As a result, it is concluded that the project's cumulative impacts on existing retailers will not be expected to result in business closures and related long term property vacancies that would lead to urban decay impacts of a sufficient magnitude and/or prevalence to result in a substantial increase in Stockton's physical urban decay conditions.

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Appendix D
Water Supply Assessment

ESA

MEMORANDUM

DATE: November 2, 2006

TO: Michael Niblock, Deputy Director
Community Development Department

FROM: Mark Madison, Director
Municipal Utilities Department

SUBJECT: **WATER SUPPLY ASSESSMENT (WSA) FOR THE WESTON RANCH TOWNE CENTER PROJECT – ACREAGE REVISION**

Attached is a letter from Jonathan Goetz of MWH stating that the effect of the addition of 6.12 acres to the Weston Ranch Towne Center project description is insignificant from a water demand standpoint as analyzed in the Water Supply Assessment (WSA) issued on July 14, 2005. As stated in the WSA, while land use is relevant to water use, a uniform water demand is assigned to this area irregardless of land use unless there is a special use requiring significant quantities of water.

The project description in the original Weston Ranch Towne Center WSA, dated July 14, 2005, which was based on the Notice of Preparation (NOP), indicated a proposed 710,000 square-feet of retail space on 59.68 acres. On November 15, 2005, the City circulated a revised NOP reflecting the addition of 6.12 acres to the project, increasing the total project acreage to 65.8 acres. Although project acreage increased, the revised NOP indicated that the proposed retail space remained at 710,000 square-feet. Based on this fact, there is no change in land use that would require a significant change in the water demand. As the acreage increase results in an insignificant change to the overall water demand within the Stockton Metropolitan Area, there is no need to revise, or reissue the WSA.

Please refer any questions to Bob Granberg at 937-8779.

MARK J. MADISON
DIRECTOR OF MUNICIPAL UTILITIES

MJM:RLG:as

Attachment

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WATER SUPPLY ASSESSMENT FOR THE WESTON TOWNE CENTER PROJECT

CITY OF STOCKTON MUNICIPAL UTILITIES DEPARTMENT

MARK MADISON, DIRECTOR

JULY 14, 2005

DEVELOPED BY:
JONATHAN D. GOETZ, MWH AMERICAS, INC

REVIEWED BY:
ROBERT GRANBERG, DEPUTY DIRECTOR

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Exhibits

Exhibit "A" – Project Location Map

Exhibit "B" – Existing Surface Water and Wheeling Contracts

Exhibit "C" – Approved Residential Developments (January 2005)

SECTION 1 - Introduction

BACKGROUND

The California Water Code requires coordination between land use lead agencies and public water purveyors. The purpose of this coordination is to ensure that prudent water supply planning has been conducted, and that planned water supplies are adequate to meet existing demands, anticipated demands from approved projects and tentative maps, and the demands of a proposed development (Project).

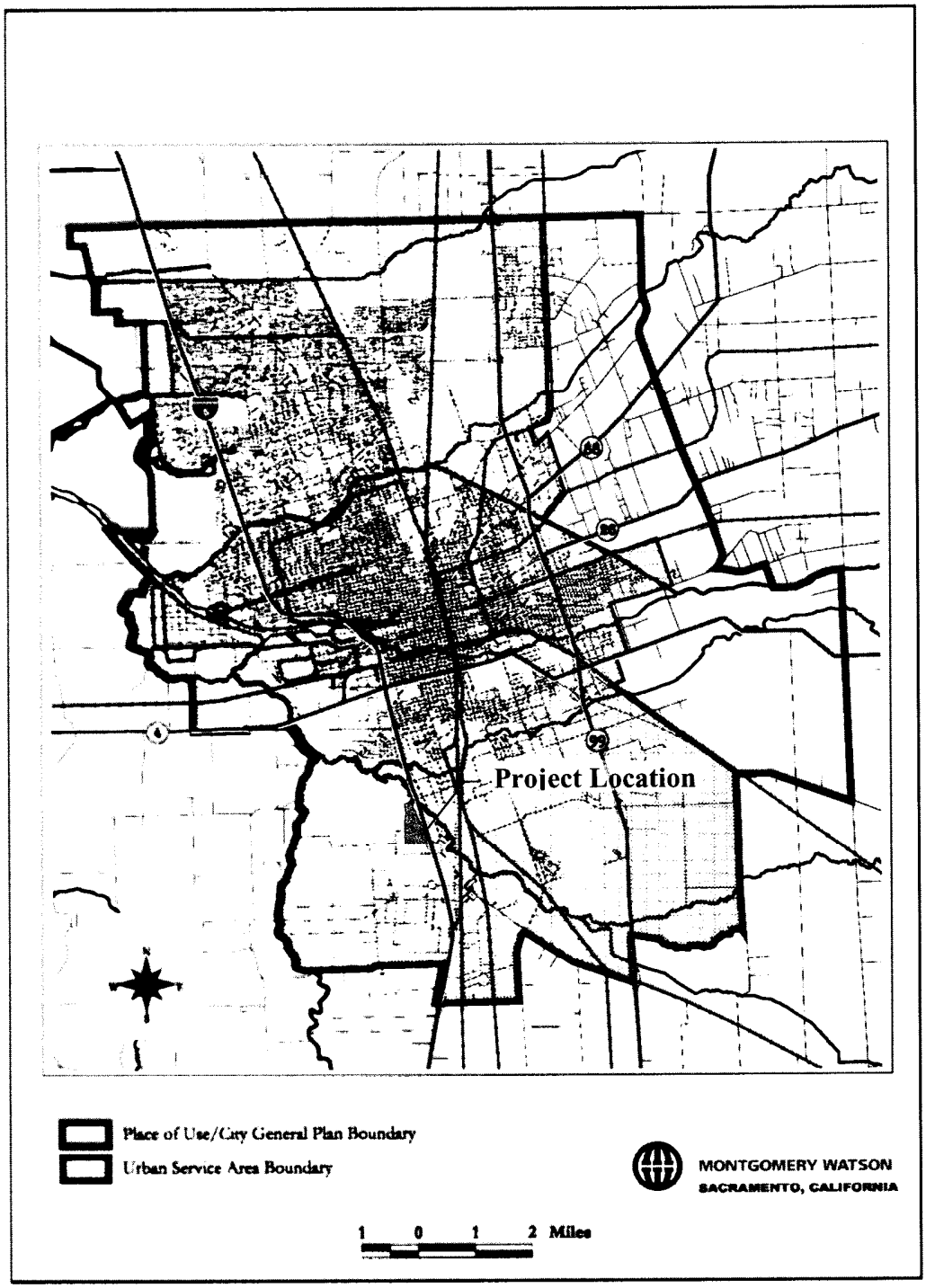
Water Code Sections 10910 - 10915 (inclusive) require land use lead agencies: 1) to identify the responsible public water purveyor for a proposed development project, and 2) to request from the responsible purveyor, a "Water Supply Assessment" (WSA). The purpose of the WSA is to demonstrate the sufficiency of the purveyors' water supplies to satisfy the water demands of the proposed development project, while still meeting the current and projected water demands of existing customers. Water Code Sections 10910 – 10915 delineate the specific information that must be included in the WSA.

PROJECT DESCRIPTION

The Weston Towne Center Project is located north of French Camp Road, west of I-5 at the northwest quadrant of the I-5/French Camp Road interchange, and east of McDougald Boulevard and the existing Weston Ranch residential subdivision. (see **Figure 1** and **Exhibit "A"** for location map). The Weston Towne Center Project is comprised of approximately 59.68 acres with a planned commercial/industrial land use totaling 710,000 square-feet of retail space. Any retail/industrial project totaling more than 500,000 square-feet of building space requires a WSA.

The Weston Towne Center Project is presently located within the incorporated area of the City of Stockton. The Project application is for retail land uses. While land use is relevant to water use, it will be explained later in the WSA, that a uniform water demand is assigned to this area irregardless of land use unless there is a special use requiring significant quantities of water.

Figure 1. Project Location Map



CURRENT WATER SUPPLY CONDITION

Like many northern California communities, the City of Stockton Metropolitan Area (COSMA) is experiencing substantial population growth and increasing water demands. At the same time, regulatory pressures, increased water usage in neighboring areas, and saline intrusion affecting groundwater supplies are straining the City's already limited water supplies. As a result, the City of Stockton (COS) has focused attention on the availability of existing surface water supplies from Stockton East Water District (SEWD) and the need to manage groundwater resources at a sustainable yield. The COS objective is to achieve a long-term reliable water supply.

A product of the COS's effort is a water right application to the State Water Resources Control Board (SWRCB) on January 6, 1996, that requested an increasing amount of surface water from approximately 20,000 acre-feet per year (AF/year) initially, up to 125,900 AF/year in 2050. To divert and deliver this surface water supply, the COS is pursuing the Delta Water Supply Project (DWSP) which will achieve the following three objectives:

- managing groundwater resources for environmental benefit and to provide a long-term sustainable yield,
- replace expected surface water supply reductions, and
- provide for planned growth.

On April 22, 2003, Stockton's City Council approved the DWSP Feasibility Report and directed the Municipal Utilities Department (COSMUD) staff to complete the necessary environmental studies to comply with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). However, until the environmental studies for the DWSP are certified, the water rights are granted by the SWRCB, and construction of the DWSP is completed, the COS will continue to rely upon existing surface water supplies, through SEWD, and existing groundwater supplies that underlie the COS service area.

Water demands within the COS are projected to increase from the present 68,000 Acre-Feet/year (AF/year) to 85,330 AF/year by build-out of the current General Plan.

SECTION 2 - Overview of COSMA's Future Water Demands

The water demands associated with new growth in the COSMA have been evaluated as part of the DWSP Feasibility Report. The findings of the DWSP report will ultimately be incorporated into the City of Stockton's Urban Water Management Plan (UWMP). The DWSP report evaluated current water demands and developed a land-use based water demand projection for build-out

of the current City General Plan. Water demands for new development projects within the General Plan were considered in the DWSP Feasibility Report.

SECTION 3 - Elements of a WSA

The format of the WSA is intended to follow Water Code Sections 10910 – 10915 to delineate clearly the specific requirements of a WSA. This WSA is structured according to those requirements.

DETERMINE IF PROJECT IS SUBJECT TO CEQA [SECTION 10910(A)]

The COS Planning Department has made a determination that the Project is subject to CEQA.

IDENTIFY RESPONSIBLE PUBLIC WATER SYSTEM [SECTION 10910(B)]

The COS Planning Department has identified the COS as the responsible public water system purveyor for the Project. The Planning Department possesses information regarding other approved development applications within the COS which should be considered in the preparation of this WSA.

DETERMINE IF UWMP INCLUDES WATER DEMANDS [SECTION 10910(C)]

Projected annual water demands beyond the year 2020 are not specifically included in the UWMP. However, although not specifically identified as such, new growth and the adequacy of supplies was considered in the UWMP in Section 5. The water demand factors adopted by the COS for water supply planning in the DWSP Feasibility Report are shown in **Table 1**.

The weighted average of the urban water demand factor is equivalent to 1.6 AF per acre/year (85,330 AF/year / (82,064 acres - 27,585 acres of Ag) = 1.6 AF per acre/year). This factor will be applied to the gross acreage of the Project for estimating water demands.

Table 1. Projected Future Water Demands based on Approved General Plan

General Plan Land Use Designation	Unit Demand Factor (AF/ac/year)	General Plan Area at 2015 (Acres)	Future Municipal Water Demands at 2015 (AF/year)
Low-Medium Density Residential	1.5	31,222	47,872
High-Density Residential	3.0	1,368	4,104
Administrative Professional	1.5	841	1,266
Commercial	1.5	3,776	5,749
Performance Industrial/Industrial	1.5	9,582	14,020
Institutional	1.5	6,648	10,235
Park and Recreational	2.0	1,042	2,084
Agricultural/Open Space	-	27,585	-
Total:	**-**	**82,064**	**85,330**

IDENTIFY EXISTING WATER SUPPLIES FOR THE PROJECT [SECTION 10910(D)]

Section 10910(d)(1)

Section 10910(d)(1) requires identification of existing water supply entitlements, water rights, or water service contracts relevant to the Project and quantification of water obtained by the COS pursuant to those water supply entitlements, water rights, or water service contracts in previous years.

Stockton East Water District (SEWD) was organized as a public agency on June 7, 1948 under the provisions of the California Water Conservation District Act of 1931. Since 1978, SEWD has been treating and supplying water up to 45 million gallons per day (mgd) to the region's urban areas through its three urban contractors (water retailers): the City of Stockton, the County of San Joaquin, and the California Water Service Company (Cal-Water) (See **Figure 2**). The historical water demands from 1994 to 2004 from each of the urban contractors are illustrated in **Figure 3**. Both groundwater and surface water from SEWD satisfy the urban contractor water demands. The split between the two supplies for each contractor is illustrated in **Figure 4**. SEWD also provides surface water to San Joaquin County farmers. SEWD is currently pursuing a 15 mgd

Figure 2. COSMA Water Retail Providers

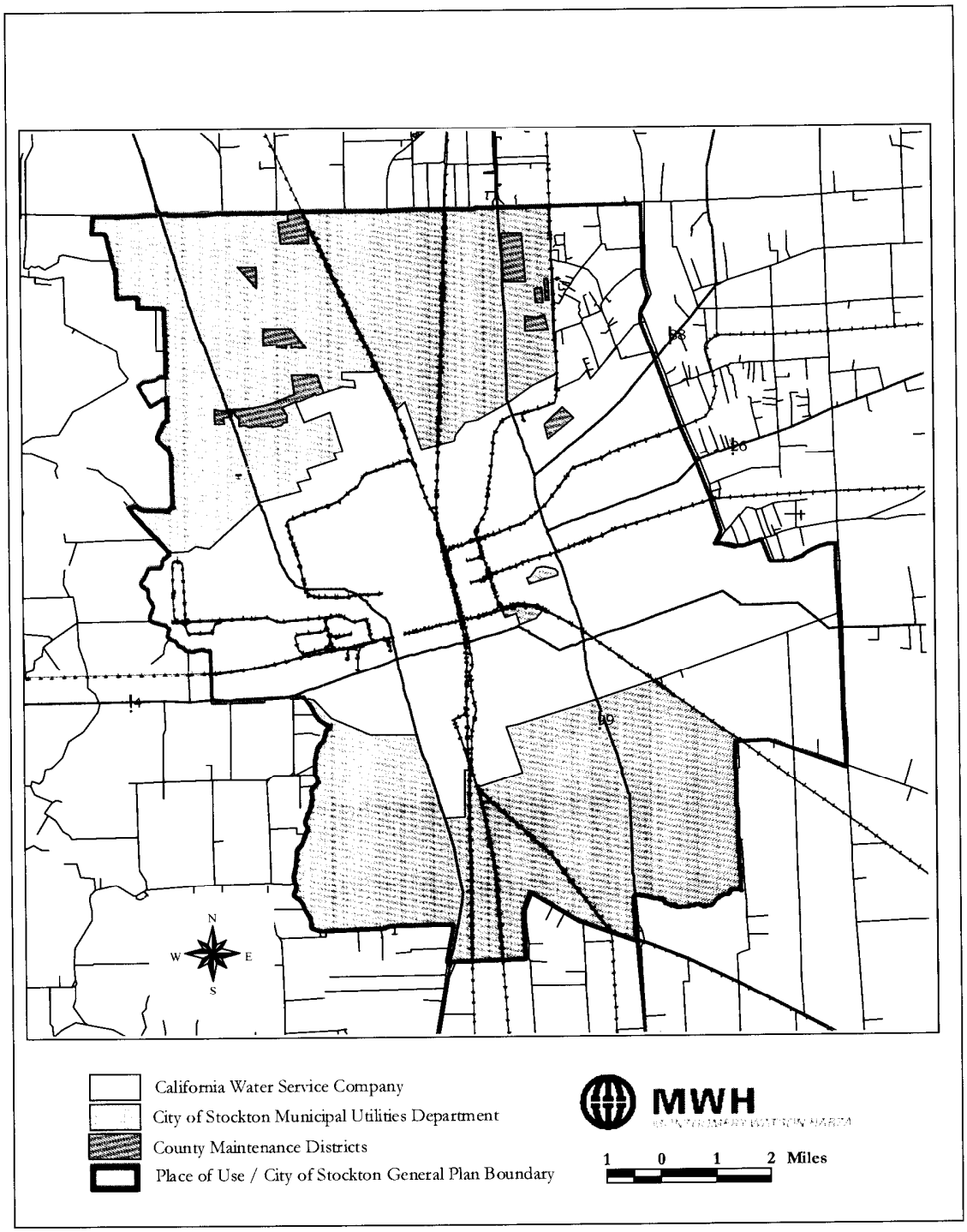


Figure 3. Water Demand By Water Retailer

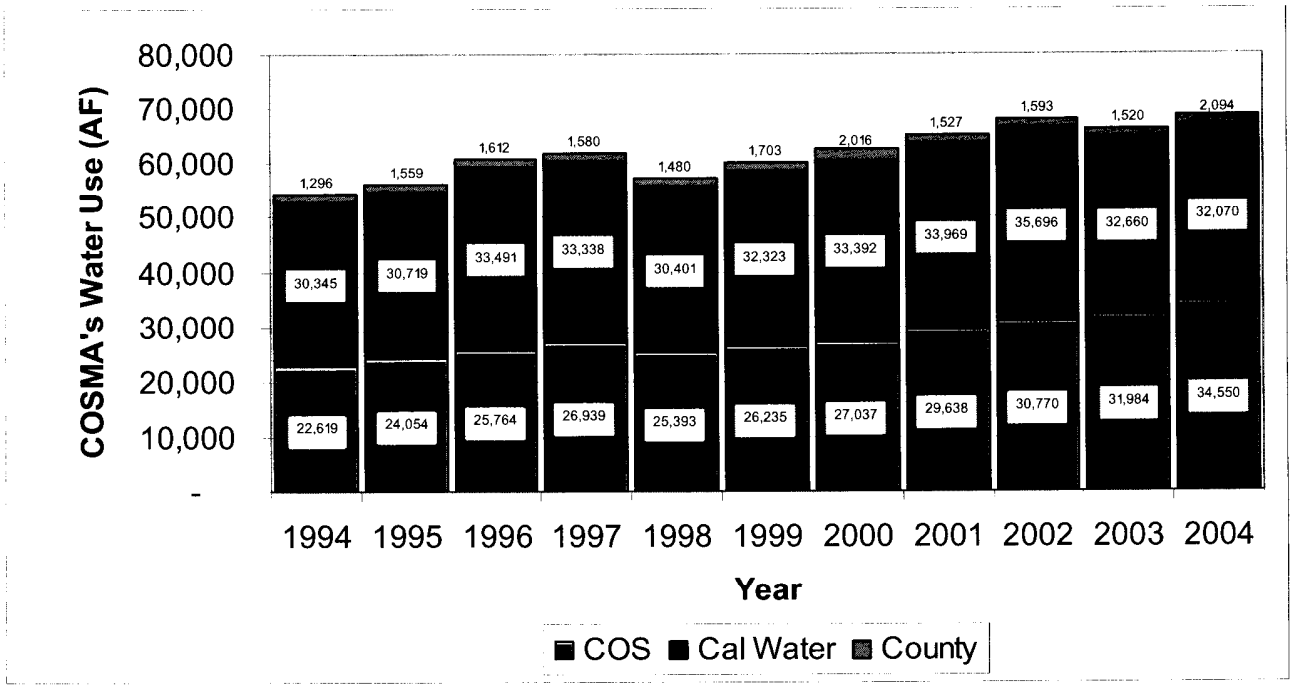
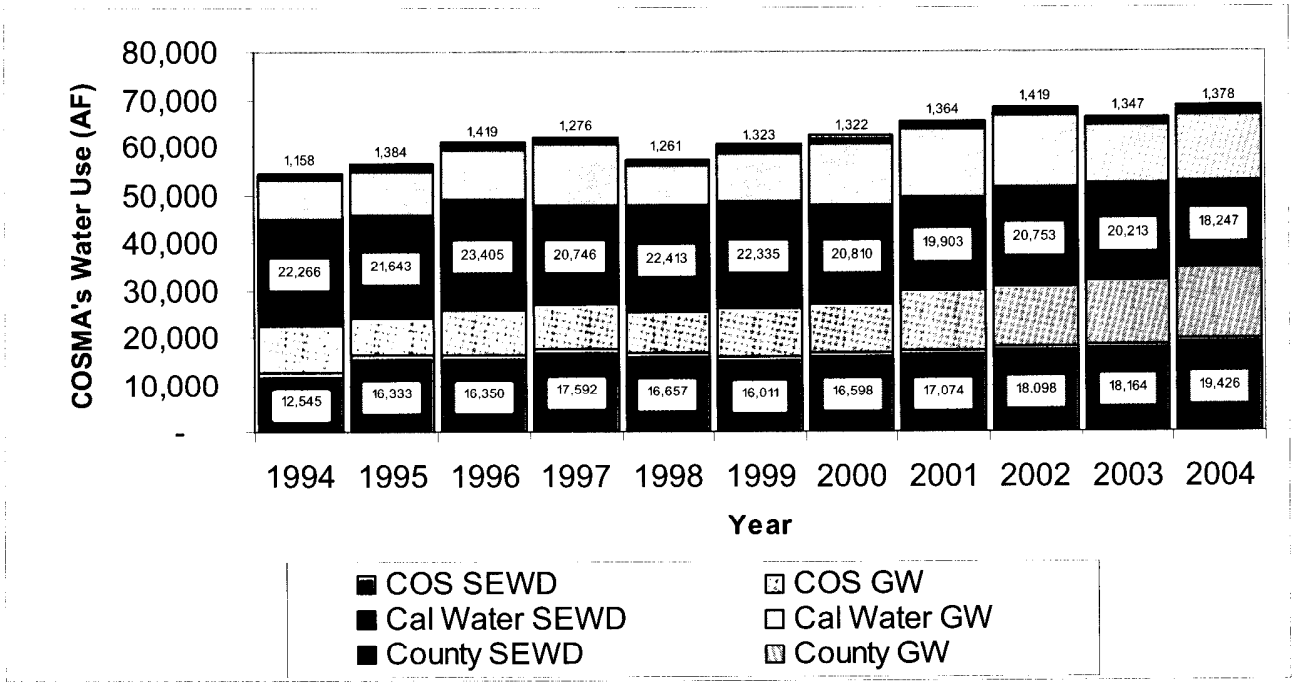


Figure 4. Use of SEWD and Groundwater Supplies by Water Retailer



expansion to the water treatment plant; however, this WSA assumes that only the 45 mgd capacity is available.

SEWD holds contracts for up to 205,000 AF/year; however, under various supply restriction and water year type conditions actual current supply availability ranges from about 100,000 AF/year in wet years to 30,000 AF/year in a dry year or 22,000 AF/year in a critical year. Surface water supplies are provided by contract with the United States Bureau of Reclamation (USBR) from New Hogan Reservoir and New Melones Reservoir. The USBR contract entitles SEWD up to 100,000 AF/year (minus conveyance losses of approximately 10,000 AF/year) from the New Hogan Reservoir, plus 10,000 AF/year that is not yet being used by Calaveras County upstream. As development continues in Calaveras County, less of this unused entitlement will be available to SEWD and its customers.

In 1983, SEWD contracted with the USBR for 75,000 acre feet of surface water supply from the New Melones Project on the Stanislaus River to be delivered at Goodwin Dam. In 1987, SEWD agreed to provide a minimum of 20,000 acre feet of treated water per year to the Place of Use in accordance with the contract entitled, "Second Amended Contract Among the Stockton East Water District, The California Water Service Company, The City of Stockton, The Lincoln Village Maintenance District, and The Colonial Heights Maintenance District Providing For The Sale of Treated Water." This agreement provides for a method of apportionment of the surface water supplies based on the percent of total water demand from each of the retail water purveyors. Approximately 50 percent of SEWD's treated surface water supplies go to California Water Service with the remaining going to the COS and County Maintenance District service areas.

Lastly, SEWD and its contractors also have arrangements for an interim water transfer from the Oakdale Irrigation District (OID) and the South San Joaquin Irrigation District (SSJID), which hold senior water rights on the Stanislaus River. The OID/SSJID water transfer contract includes an option to renew for a minimum of a ten-year period upon expiration in 2009, subject to mutually agreeable conditions. The OID/SSJID contract is currently for up to 30,000 AF/year, 15,000 AF/yr from each district. For the purposes of this WSA, it is assumed that mutually agreeable conditions will result in both irrigation districts renewing to beyond 2009. The projected variability of supply available to SEWD under the OID/SSJID contract is shown in **Table 2**.

Table 2. Availability of Water Under the OID/SSJID Water Contract

Percentage of Years	Volume Available Annually (AF/year)	
	Prior to 2009	After 2009
85%	30,000	30,000
9%	12,500	12,500
6%	8,000	8,000

The COSMA currently receives surface water supplies (via SEWD) from five sources (see **Exhibit "B"** for copies of surface water and SEWD wheeling contracts) as shown in **Table 3**. Contract documents, agreements, and applications for these surface water supplies are available for review in **Exhibit "B"**. "Table 3 – Current and Projected Water Supplies" (UWMP, p. 5) of the UWMP presents the quantities of surface water diverted (or projected to be diverted).

Figure 5 illustrates the decrease in surface water supplies "on average" over the next 20 years. The maximum surface water use is constrained by either SEWD's conveyance and water treatment plant capacity or by the contract entitlement. For example, the set of bars for each contract for each year considers the previous 70 years of historical hydrology (i.e., rainfall, stream flows, etc) and the limitations of the SEWD water treatment plant to treat and deliver potable water supplies. For example, the OID contract is for a maximum of 15,000 AF/year, but results in 11,425 AF/year on average over the 70 years of hydrology. The decrease in overall surface water in 2019 reflects the assumption that the annual volume of Calaveras County Appropriative Water Right water will diminish slightly due to new water demands expected in their service area.

Table 3. Existing SEWD Water Sources and Critical Year Availability

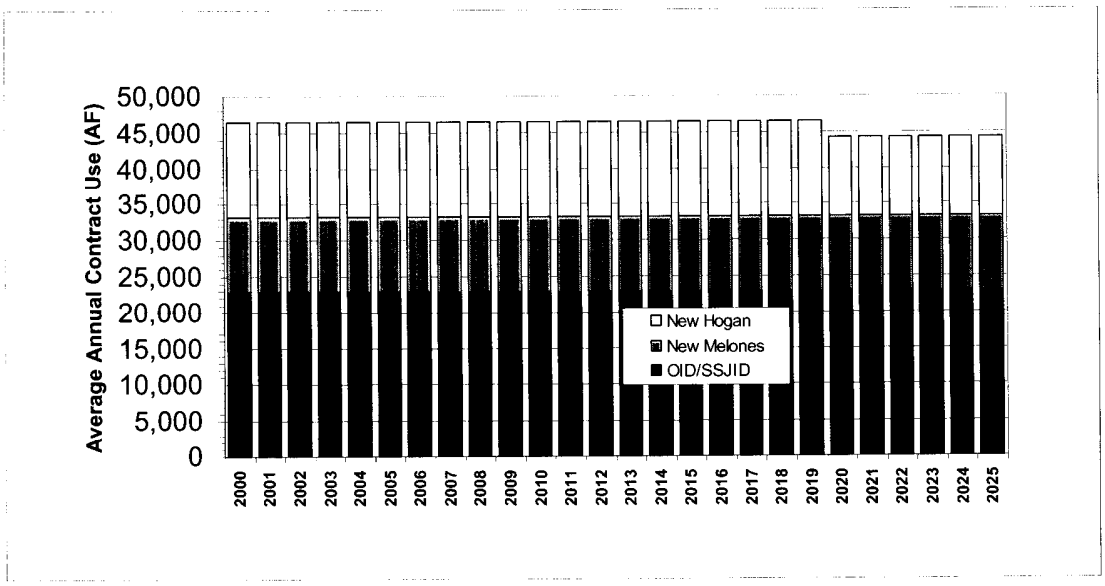
Source	Annual Contract Amount Thousand Acre Feet (TAF)	Projected "Critical Year" Annual Availability (AF/year)		
		Planning Year		
		2000	2010	2020
Current "Firm" Sources of Supply				
Reclamation – New Hogan Water Supplies	Total Yield 100 TAF [1] (M&I 15 TAF) (Ag & Recharge 75 TAF) (Losses 10 TAF)	12,000	12,000	12,000
Calaveras County Water District Appropriative Water Rights	Unused Calaveras County Water Rights (M&I 10 TAF)	10,000	8,000	6,000
Reclamation – New Melones Interim Water Contract and Section 215 "Spill" Water	Total Contract 75 TAF (M&I 40 TAF) (Ag & Recharge 20 TAF) (Losses 15 TAF)	Not Available in Dry Years		
SSJID Transfer - Stanislaus River	15 TAF	4,000	4,000	4,000
OID Transfer - Stanislaus River	15 TAF	4,000	4,000	4,000
Total	**Total 205 TAF (M&I 95 TAF)**	**30,000**	**28,000**	**26,000**

Notes:

1. SEWD has a right to 56.5 percent of the yield, and Calaveras County Water District (CCWD) has rights to the remaining 43.5 percent. CCWD currently uses approximately 3,500 ac-ft of its allocation, and prior water rights demand is 13,000 ac-ft. Based on an agreement between CCWD and SEWD, SEWD currently has use of the unused portion of CCWD's allocation. Approximately

The COS will continue to meet dry year deficiencies over the next 20 years with groundwater, water conservation, and various other water supplies. The COS is pursuing surface water transfer agreements with local irrigation districts and municipalities. Such transfer supplies would be diverted for treatment by SEWD

Figure 5. Projected Average Surface Water Contract Use from 2000 to 2025



or a water treatment plant owned and operated by the COS. While this WSA recognizes the strong possibility of obtaining additional interim surface water supplies, it does not rely upon those supplies for meeting its water supply requirement.

HOW WILL PROJECT DEMANDS BE MET?

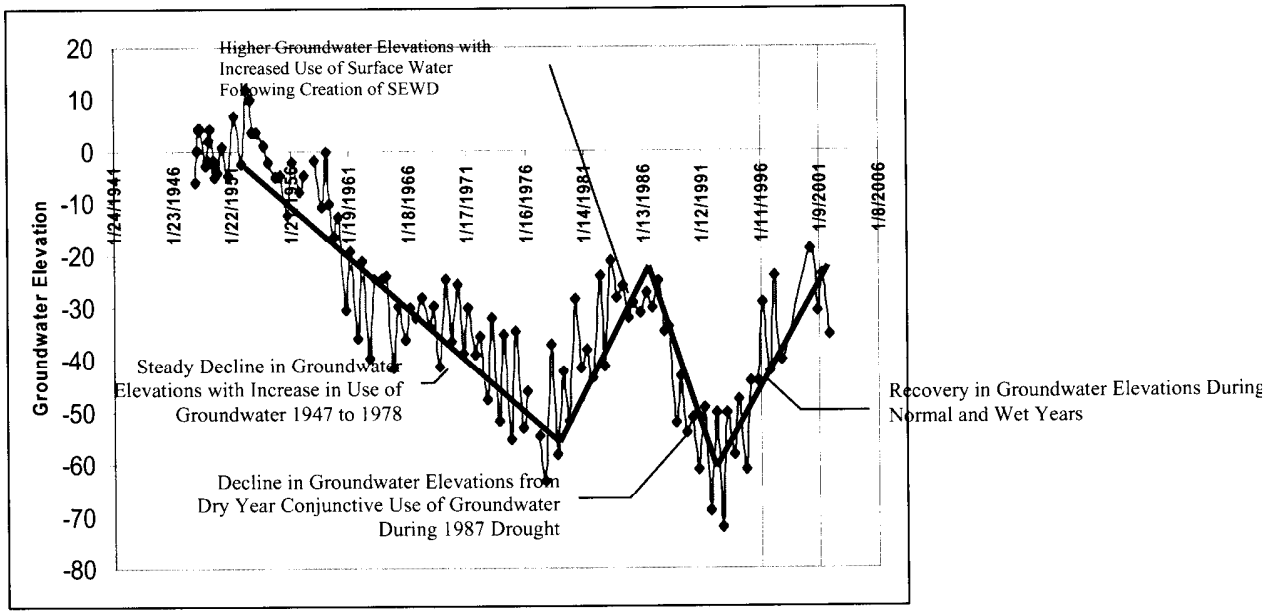
Project water demands will be met using surface water and groundwater. This mix of supplies will vary depending on the hydrologic year type and availability of surface water. The COSMA water purveyors currently exercise (and will continue to exercise) their rights as groundwater appropriators to extract groundwater from the groundwater basin underlying COSMA for delivery to its customers.

Groundwater currently comprises approximately 40 percent of the COSMA's total water supply. Currently, within the Urban Services Area of the City's General Plan, about 44,000 AF/year of groundwater is pumped: 27,000 AF/year for municipal use and 17,000 AF/year for agricultural use.

Groundwater use within the broader San Joaquin County region has resulted in a decline of groundwater elevations over the period from 1947 to 2001 as indicated by the three hydrographs shown in **Figure 6.** The figure illustrates groundwater elevations at wells located within and adjacent to the City (see **Figure 7** for well locations). The short duration fluctuations in **Figure 6** result from the seasonal wet and dry months and irrigation usage within each year. An overall decline in

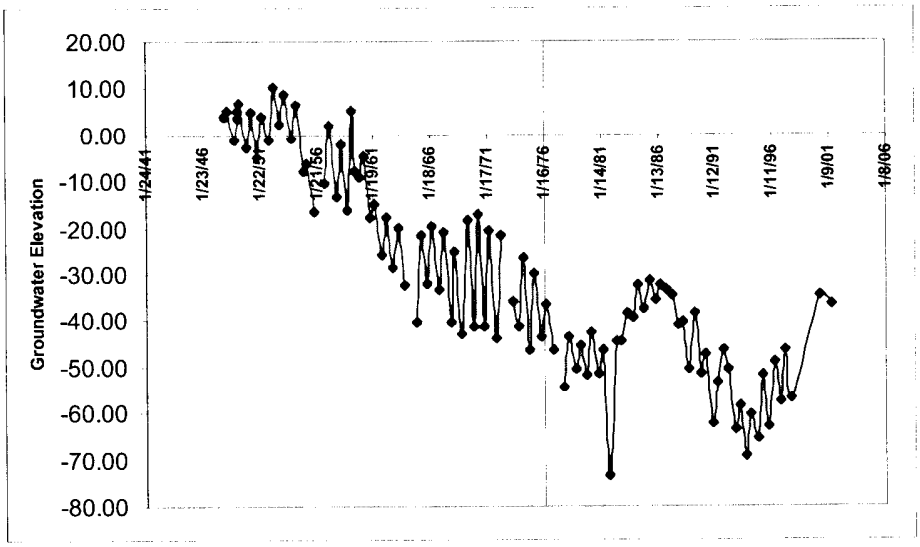
Figure 6. Groundwater Elevation Hydrographs for Areas Near the City of Stockton (see Figure 7 for Hydrograph locations)

a) Well 1 (State Well ID No. 02N06E26H001M) Hydrograph from 1947 to 2001



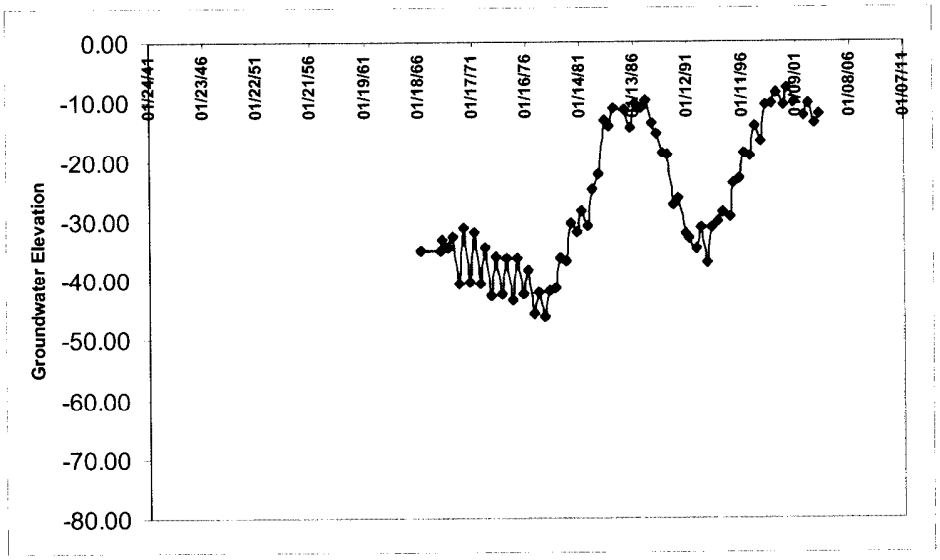
Data Source: State of California Department of Water Resources State Well Monitoring Program; MSL datum

b) Well 2 (State Well ID No. 02N07E15C001M) Hydrograph from 1947 to 2001



Data Source: State of California Department of Water Resources State Well Monitoring Program: MSL datum

c) Well 3 (State Well ID No. 01N06E03K001M) Hydrograph from 1947 to 2001



Data Source: State of California Department of Water Resources State Well Monitoring Program: MSL datum

groundwater elevations from 1947 to 1978 is the result of agriculture and urban areas relying entirely on groundwater supplies.

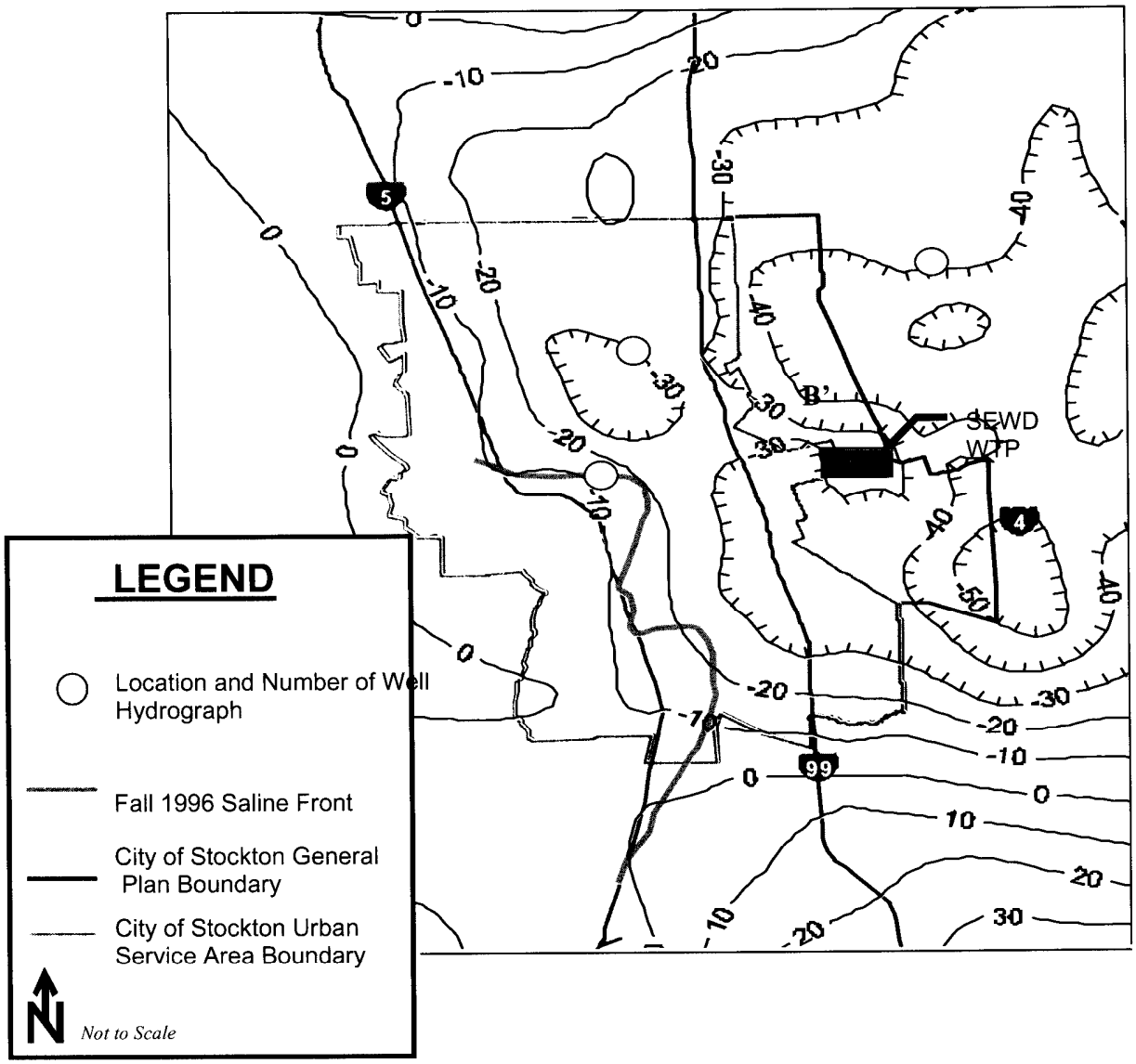
In the late 1970's, SEWD was required to provide supplemental supplies of surface water to the Stockton Urban Water Purveyors. The use of surface water in the COSMA resulted in an increase in groundwater elevations as shown in the hydrographs in **Figure 6**. Increases in the elevation continued until the drought of the late 1980's and early 1990s. The behavior of the groundwater basin during the drought and subsequent normal year hydrology of the late 1990's indicate that the basin is recovering and is stabilized and operating within a manageable range. The recent stabilization and improvement in groundwater elevations is the result of wet hydrology, active recharge projects, and increased deliveries to and more effective use of surface water in areas historically served by groundwater.

Over the period from 1947 to present, the change in slope of the groundwater surface in western San Joaquin County has created a condition that has allowed saline water to migrate east-northeast into a portion of the COSMA, degrading water quality and rendering it unsuitable for municipal or agricultural use in some areas.

The sustainable yield of the groundwater basin is based on changes in the rate of movement of the salinity front. Over the years, there have been various estimates of the sustainable long-term yield from the groundwater aquifer. The

February 1992 Supplemental Report for Water Supply prepared for the COS Special Planning Area Study states:

Figure 7. COSMA Fall 2000 Groundwater Elevation Contours
(Data Source: California State Department of Water Resources)



uncertain but could be in the range of 30,000 AF/year based on a total area of about 40,000 acres and an average withdrawal of 0.75 AF/ac/year.
...groundwater can provide from 0.75 to 1.0 AF/year/acre on a long term basis."

Other references to sustainable groundwater yield are included in the COS 1995 Urban Water Management Plan Update, which uses a firm yield of 1.0 AF/ac/year, and from the North Stockton Master Plan in which 0.75 AF/ac/year is used.

Planning level studies have been completed by the COS in support of an assessment to establish the appropriate "water duty" factor to be used for purposes of water supply planning. The studies evaluated the effects of "water duty" ranging from 0.75 to 1.0 AF/ac/year over the developed portions of the COSMA at build-out of the General Plan. The results of the studies indicate that a 0.92 AF/ac/year extraction rate in the northeast portions of the City's General Plan (See **Figure 8**) and 0.75 AF/ac/year over the remaining areas does not increase the migration of the saline water intrusion, does not significantly lower the groundwater basin, and is sustainable over the long-term. At build-out of the General Plan, an average of 43,000 AF/year over the wet and dry years would be produced. It is assumed that a portion of new development will receive 0.92 AF/ac/year of groundwater with the remaining supplies coming from surface water and other sources, including but not limited to SEWD, water conservation, and reclaimed (or recycled) wastewater.

EXISTING WATER SUPPLY ASSESSMENT

Given the estimate of firm groundwater yield, the adequacy of water supplies can be evaluated. The year 2003 baseline of developed area within the COSMA is estimated to be 46,300 acres. At 0.75 AF/ac/year, the average production of sustainable groundwater yield for this area would be approximately **34,725** AF/year.

Table 4 presents a comparison of normal, dry, and consecutive dry year supplies and demands. Supplies are based on the forecasted supplies in 2025. The average **29,199** AF/year of groundwater is assumed to be available in all normal to wet years. In dry years, slightly more groundwater is available to replace deficiencies in surface water. The average groundwater use by the COSMA over the 70-years of historical hydrology is used as a basis for evaluating the adequacy of water supplies. **Table 4** indicates that over the 70-year period average water supplies meet existing water demands without exceeding the sustainable groundwater yield.

WATER SUPPLY ASSESSMENT INCLUDING APPROVED TENTATIVE MAPS AND THE PROJECT

The ability to expand the developed area is dependent on meeting water demands with surface water and groundwater supplies. The total 2003 water demand was approximately 68,000 AF/year, equating to an average water demand per developed acre of 1.5 AF/ac/year. It is assumed that every acre of new development that occurs after 2003 will increase COS's annual demand by 1.6 AF/year, regardless of where the development takes place.

Over the past 10 years, the COSMA has seen an average 1,600 AF/year increase in water demands. For purposes of this WSA, 1,600 AF/year is assumed to be the current saturation rate of new demand for the COS, absent significant changes in the real estate market and social-economic conditions. This WSA assumes no pre-existing entitlement of either surface water or groundwater (e.g., previous agricultural pumping in the project area is not credited to COSMA's available water supplies).

A portion of the supply for new development will be from groundwater supplies from new wells in areas designated for 0.92 AF/ac/year area extraction level. The cumulative area of new development beyond the 0.92 AF/ac/year area will resume at the 0.75 AF/ac/year extraction level. The groundwater produced from all active municipal wells will mix with SEWD surface water supplies to meet the overall demand of the COSMA.

In the case of the 0.92 AF/ac/year groundwater extraction level, surface water, water demand reductions, and other supplemental supplies will provide the remaining 0.68 AF/ac/year. Recall that the 0.92 AF/ac/year and the 0.68 AF/ac/year are averages over the period of hydrologic year types. In some years the surface water may be more, and in dry years less, but on average the expected surface water use is 0.68 AF/ac/year. The same is true for areas of groundwater use at the 0.75 AF/ac/year extraction level where 0.85 AF/ac/year will come from other sources of water.

Table 4. Existing (2003) Water Supplies and Demands for the COSMA by Retail Service Provider

Year Type		Demand Reduction	Surface Water (AF/year)	Groundwater (AF/year)	Total Water Supply (AF/year)	Year 2003 Demand w/ Demand Reductions (AF/year)
Normal	COSMUD	0%	22,360	9,780	32,140	32,140
	Cal-Water		24,882	8,808	33,690	33,690
	County		1,658	511	2,170	2,170
	Total		**48,901**	**19,806**	**68,000**	**68,000**
Single Dry	COSMUD	15%	8,825	19,715	28,540	24,259
	Cal-Water		9,821	17,755	27,576	23,439
	County		655	1,030	1,685	1,432
	Total		**19,300**	**38,500**	**57,800**	**49,130**
Multiple Dry (Hypothetical 3-year Drought Period into the Future(using 1977 to 1980 Drought Sequence))	COSMUD	0% (1st Year)	22,360	9,780	32,140	32,140
	Cal-Water		24,882	8,808	33,690	33,690
	County		1,658	511	2,170	2,170
	Total		**48,901**	**19,099**	**68,000**	**68,000**
	COSMUD	10% (2nd Year)	8,825	21,456	30,281	27,253
	Cal-Water		9,821	19,323	29,144	26,229
	County		655	1,121	1,776	1,598
	Total		**19,300**	**41,900**	**61,200**	**55,080**
	COSMUD	10% (3rd Year)	8,825	21,456	30,281	27,253
	Cal-Water		9,821	19,323	29,144	26,229
	County		655	1,121	1,776	1,598
	Total		**19,300**	**41,900**	**61,200**	**55,080**
Average over 70-Years	COSMUD	**5%**	16,287	14,952	31,239	29,677
	Cal-Water		18,125	13,466	31,590	30,011
	County		1,208	781	1,989	1,890
	Total		**35,620**	**29,199**	**64,819**	**61,578**

Reference: City of Stockton Urban Water Management Plan 2000 Update, December 2000
Notes:
1.)Dry year surface water amounts assume SEWD's New Hogan Central Valley Project water with deficiencies, and Oakdale Irrigation District and South San Joaquin Irrigation District deficiencies as stipulated in the contract for these water supplies.

2.)Normal year surface water deliveries are restricted to the projected availability of SEWD conveyance and treatment plant capacity (not to exceed 45 mgd).

SUSTAINABLE YIELD OF GROUNDWATER

Assuming a total of 46,300 existing developed acres (based on the latest State DWR land use survey) assumed for 2003[1], the 2003 sustainable yield of groundwater for urban development is calculated to be **34,725** AF/year (46,300 acre X 0.75 AF/acre/year = **34,725** AF/year). At buildout of COSMA's Urban Services Area of 66,000 acres, the sustainable yield based on the 0.75 AF/acre/year factor could potentially increase to approximately **49,500** AF/year of groundwater. At this rate of extraction, an equivalent volume would be recharged into the groundwater basin from deep percolation, streams and rivers, and subsurface recharge. Through this natural induced recharge, the groundwater system will find an equilibrium that is sustainable over the long-term. Increasing the water duty from 0.75 AF/acre/year to 0.92 AF/acre/year in a specified portion of the northeast area within the Urban Services Boundary as shown in **Figure 8** as the gray area will increase the **49,500** AF/year to approximately **50,180** AF/year.

Exhibit "C" is a listing of each approved development and their respective acreage as of January 2005. A total of approximately **5,486** acres was approved for development between 2003 and January 2005 and is under construction to various degrees. The COS Planning Department estimates that **70%** of the area is included in the existing developed area of 46,300 acres. The remaining **30%** or **1,613** acres of approved development is considered to undeveloped and under this WSA to be in areas where the 0.92 AF/ac/year of groundwater yield is available.

One requirement of a WSA is to consider other (proposed) projects for which WSA's have been prepared together with the proposed project. Such projects include:

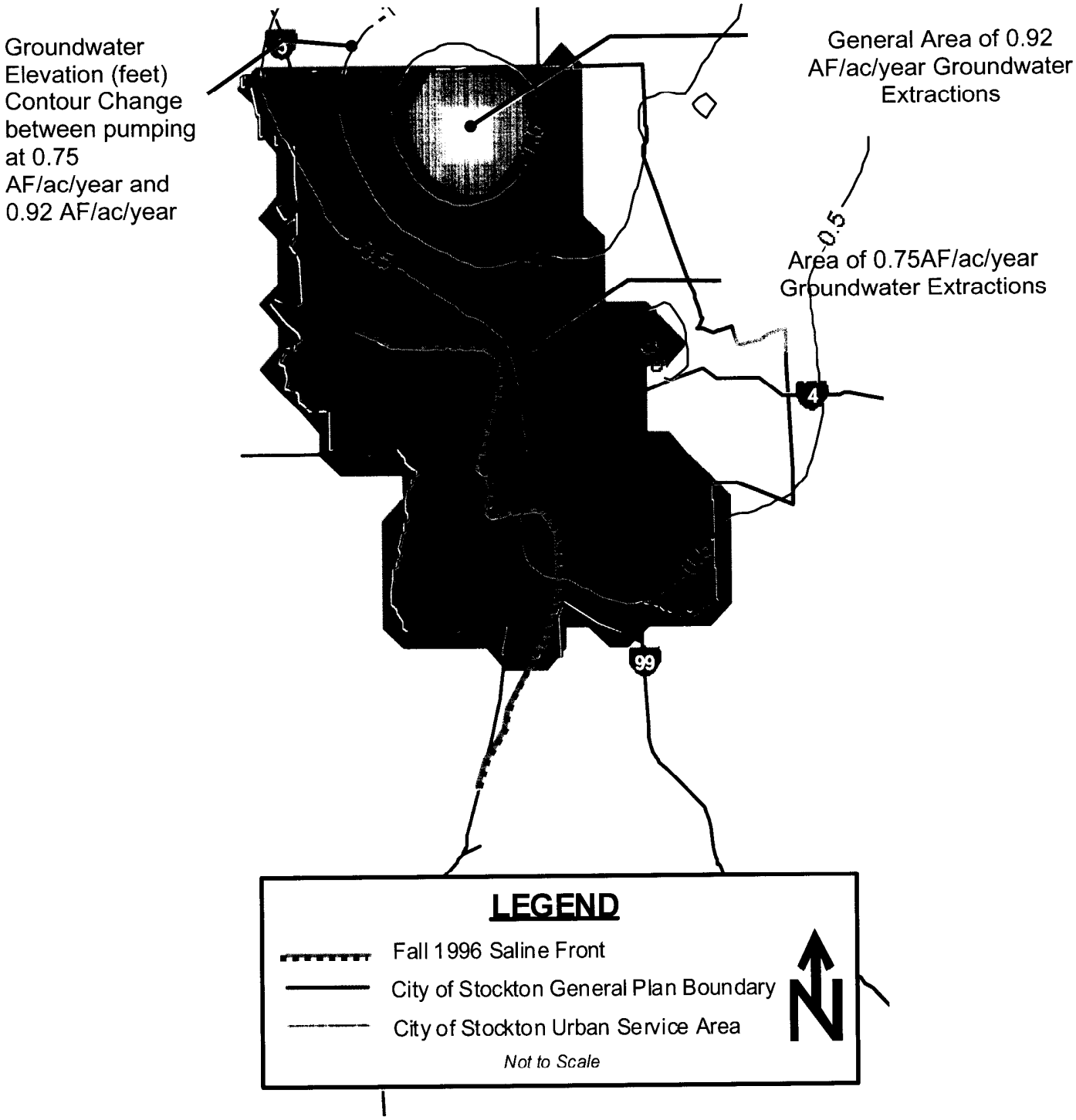
Cannery Park: 450-acre located southwest of the Eight Mile Road and Highway 99 interchange.

Paradise (a.k.a. Westlake) Villages: 683 acres located west of Interstate 5 and immediately west of the Spanos Park West, south of Eight Mile Road, east of Bishop Cut and north of Disappointment Slough.

Origone Ranch: 394 acres located in the unincorporated area of San Joaquin County south of Eight Mile Road and east of West Road.

[1] 2003 is used as the baseline year for beginning the WSA process. The importance of this year is in the need to track developments that occur after 2003 to verify how many acres of development are approved and built using the higher extraction rate of 0.92 AF/acre/year.

Figure 8. Projected Change in Groundwater Elevation (feet) With 0.92 AF/ac/year in Northeast Portion of City of Stockton



North Stockton Phase III: 237 acres located south of Eight Mile Road and Lower Sacramento Road on the east and the Union Pacific Railroad on the west.

Bear Creek West Specific Plan: 1,149 acres located south of Eight Mile Road, west of West Lane, east of Lower Sacramento Road, and north of Sutherland drive.

Bear Creek East Specific Plan: 318 acres located south of Eight Mile Road, east of West Lane, west of the Union Pacific Railroad, and north of the Bear Creek drainage corridor.

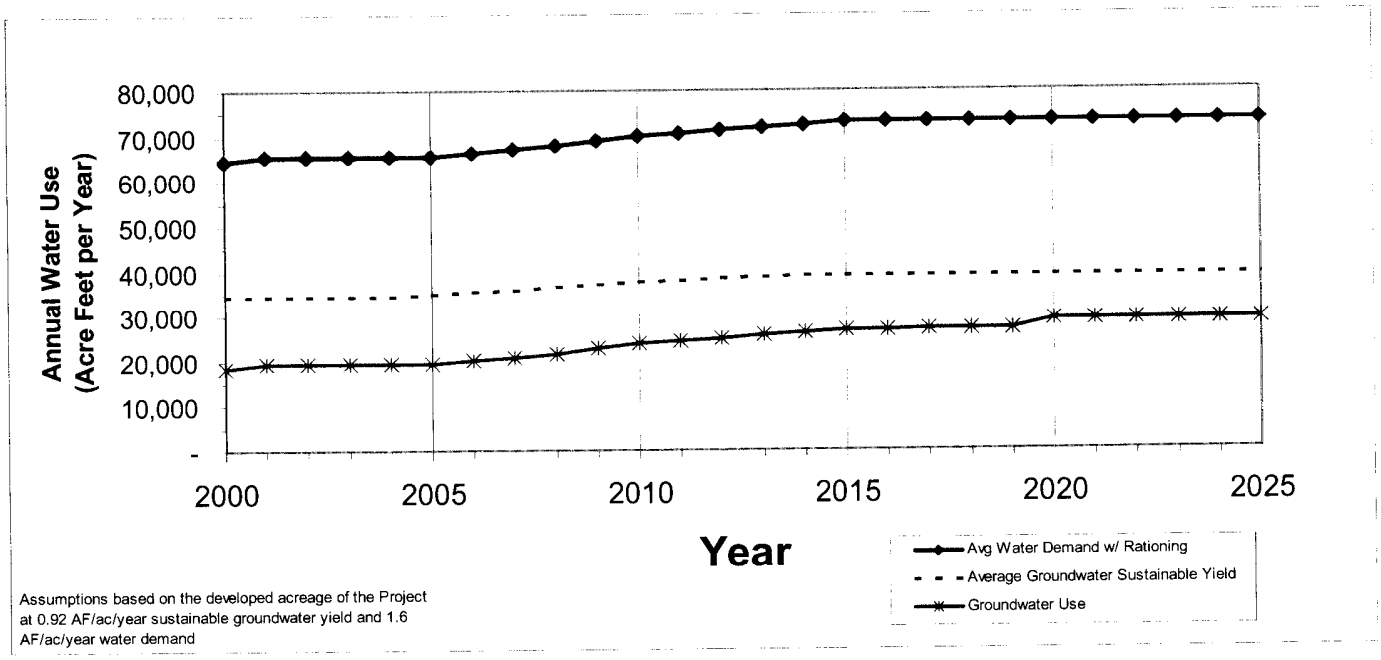
The total area of new development, **4,843.6** acres ((Approved Developments **1,613** acres) + (Cannery Park **450** acres) + (Paradise Villages **683** acres) + (Origone **393.6** acres) + (North Stockton III **237** acres) + (Bear Creek West **1,149** acres) + (Bear Creek East **318** acres) +(Weston Towne Center **59.7** acres) = **4,903.3** acres)) is considered under this WSA as areas of new growth. The amount of this area supplied by groundwater from areas where the 0.92 AF/ac/year of groundwater yield is available is assumed to be 4,000 acres. The total sustainable yield based on this area is calculated by multiplying 4,000 acres at 0.92 AF/ac/year and the remaining **903.3** acres of new development plus 46,300 acres of existing development at 0.75 AF/ac/year. This equals **39,082** AF/year ((4,000 acres @ 0.92 AF/acre/year) + (47,203.3 acres @ 0.75 AF/acre/year) = **39,082** AF/year).

A model was developed to estimate needed groundwater extractions over the next 20 years. **Figure 9** shows that demands can be met with surface and groundwater supplies for the next 20 years and not exceed the sustainable yield of the groundwater basin. The total water demand by 2015 based on the projects currently in for application is estimated to be **77,121** AF/year. The upper line is the average demand, approximately 95% (or **73,192** AF/year) of the total demand, which reflects rationing in dry years. The next dashed line below the top line indicates that the sustainable yield of the groundwater, which increases slightly as additional lands are urbanized. The bottom line of **Figure 9** shows the estimated average groundwater demand in year 2025 at **28,960** AF/year, approximately **10,122** AF/year below the sustainable yield available for existing areas and the proposed project.

Table 5 shows how supplies will meet demands in the normal, single dry, and multiple dry years in 2025 with anticipated future and project demands included. For the three year drought conditions, hydrologic conditions based on the 1977 to 1980 period are used. During normal conditions, surface water and groundwater supplies meet water demands. During single and multiple dry years, groundwater supplies will be relied upon to meet shortages in surface water supplies from SEWD. However, the average groundwater extraction of **28,960**

AF/year over the 70 years of historical hydrology indicates that the groundwater sustainable yield of **39,082 AF/year** is not exceeded.

Figure 9. Projected Demand and Supplies with Project



Section 10910(d)(2)

Section 10910(d)(2) requires the COS to demonstrate the water supplies required to serve the project actually exist. Section 10910(d)(2) delineates what constitutes "proof".

Section 10910(d)(2)(A)

This subsection requires written contracts or other proof of entitlement to the water supplies identified to serve the project. SEWD, COSMUD, San Joaquin County, and California Water Company surface water contracts are attached as **Exhibit "B"**.

Even though the water demands of the project will be met with surface water and groundwater, it is assumed that the COS will exercise its right as a groundwater appropriator to extract groundwater from the basin for delivery to the project.

Table 5. Available Water Supply and Demands with Project for the COSMA by Retail Service Provider

Year Type		Demand Reduction	Surface Water (AF/year)	Groundwater (AF/year)	Total Water Supply (AF/year)	With Project Demands w/ Demand Reductions (AF/year)
Normal	COSMUD	0%	24,705	14,853	39,557	39,557
	Cal-Water		24,309	11,885	36,194	36,194
	County		89	1,281	1,369	1,369
	Total		**49,102**	**28,018**	**77,121**	**77,121**
Single Dry	COSMUD	15%	9,710	24,519	34,229	29,095
	Cal-Water		9,555	19,620	29,174	24,798
	County		35	2,114	2,149	1,827
	Total		**19,300**	**46,252**	**65,552**	**55,720**
Multiple Dry (Hypothetical 3-year Drought Period into the Future(using 1977 to 1980 Drought Sequence))	COSMUD	0% (1st Year)	24,705	14,853	39,557	39,557
	Cal-Water		24,309	11,885	36,194	36,194
	County		89	1,281	1,369	1,369
	Total		**49,102**	**28,018**	**77,121**	**77,121**
	COSMUD	10% (2nd Year)	9,710	26,563	36,273	32,646
	Cal-Water		9,555	21,255	30,810	27,729
	County		35	2,290	2,325	2,093
	Total		**19,300**	**50,108**	**69,408**	**62,468**
	COSMUD	10% (3rd Year)	9,710	26,563	36,273	32,646
	Cal-Water		9,555	21,255	30,810	27,729
	County		35	2,290	2,325	2,093
	Total		**19,300**	**50,108**	**69,408**	**62,468**
Average over 70-Years	COSMUD	**5%**	22,291	15,352	37,643	35,761
	Cal-Water		21,934	12,284	34,218	32,507
	County		80	1,324	1,404	1,334
	Total		**44,304**	**28,960**	**73,264**	**69,601**

Reference: City of Stockton Urban Water Management Plan 2000, December 2000
Notes:
1.)Dry year surface water amounts assume SEWD's New Hogan Central Valley Project water with deficiencies, and Oakdale Irrigation District and South San Joaquin Irrigation District water transfers are available with deficiencies according to the existing contract.

2.)Normal year surface water deliveries are restricted to the projected availability of SEWD conveyance and treatment plant capacity (not to exceed 65 mgd).

Section 10910(d)(2)(B)

This subsection requires a copy of the capital outlay program for financing the delivery of the identified water supply to the project. The financial program for development of groundwater supplies will be included in the finance program for the project.

Section 10910(d)(2)(C)

This subsection requires identification of any federal, state, and local permits required for construction of the facilities identified for delivering the water supply to the project.

Any new wells for the Project will be added to COS's permit from the California Department of Health Services (DHS) permit to serve potable water supplies. The design of those facilities will require coordination with DHS. No other regulatory approvals are anticipated.

Section 10910(d)(2)(D)

This subsection requires identification of any regulatory approvals required for delivery of the water supply to the project.

The groundwater facilities to serve the project areas will be added to the COS's permit(s) from the California Department of Health Services (DHS) permit to serve potable water supplies. The design of those facilities will require coordination with DHS. No other regulatory approvals are anticipated.

Section 10910(e) states:

"If no water has been received in prior years by the public water system,..., under the existing water supply entitlements, water rights, or water service contracts [identified to serve the proposed project], the public water system, ... , shall also include in its water supply assessment pursuant to subdivision (c), an identification of the other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system, ... , has identified as a source of water supply within its water supply assessments."

The intent of this section is to identify any potential conflicts that may arise from the exercise of a water supply entitlement, water right, or water service contract

to serve a proposed project if such water supply entitlement, water right, or water service contract has not been previously exercised.

Use of Groundwater:
The water demands of the project area will be met in part with groundwater. The COS has previously exercised its rights as a groundwater appropriator to serve the water demands of its customers and will continue to exercise those rights to provide treated water supplies.

Use of Surface Water:
The surface water supplies associated with the COSMA's conjunctive use program fall into three categories: 1) water supplies derived from the Central Valley Project (CVP), 2) interim water supply contracts, and 3) surplus supplies available on an intermittent basis.

The parties that could most directly be affected by exercise of these water rights are CVP contractors, State Water Project (SWP) contractors, water rights holders subject to Term 91 conditions, and riparian diverters downstream of the points of diversion for each contract.

Section 10910(f)

The water demands of the project will be met with groundwater. Consequently, Section 10910(f) requires specific additional information.

Section 10910(f)(1)

Section 10910(f)(1) requires a review of groundwater data contained in the UWMP.

The UWMP does identify past volumes of groundwater extracted by the COSMA. A graph of historical surface water and groundwater supplies is provided in **Figure 10**.

Section 10910(f)(2)

Section 10910(f)(2) requires a description of the groundwater basin and the efforts being taken to prevent long-term overdraft.

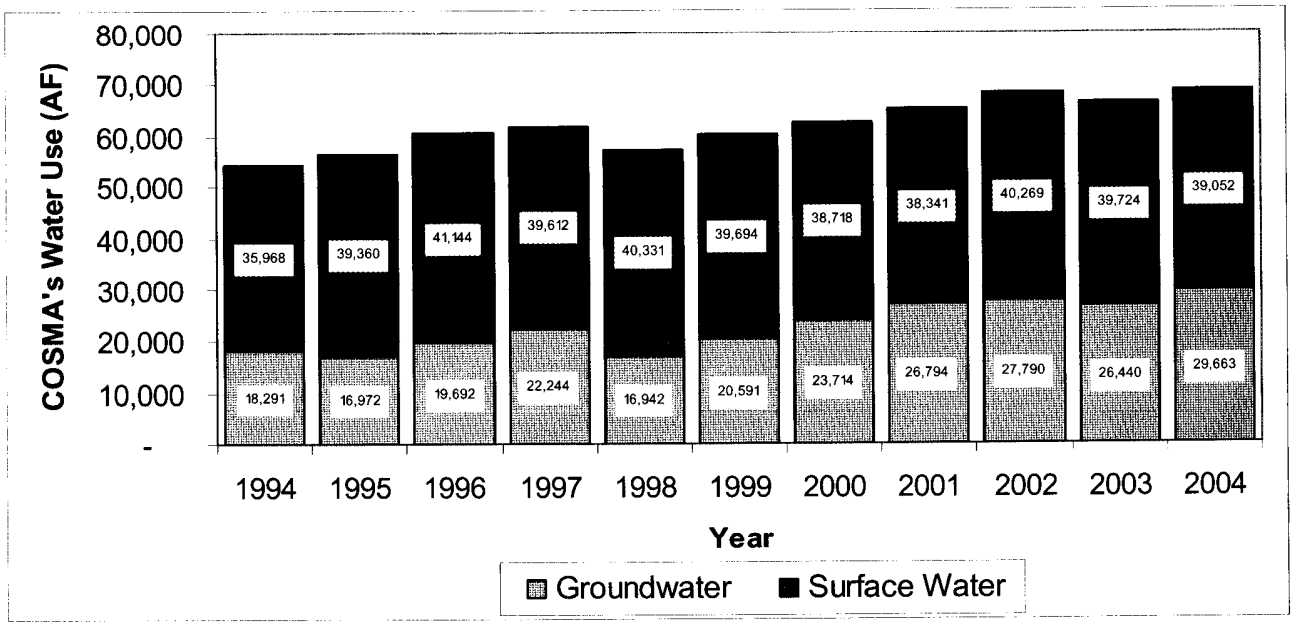
In addition to the COSMA's long-term plan for preventing overdraft of the groundwater basin, the objectives of the proposed future DWSP insure

systematic, incremental implementation of the conjunctive use program to provide a benefit to the groundwater basin.

Section 10910(f)(3)

Section 10910(f)(3) requires a description of the volume and geographic distribution of groundwater extractions from the basin for the last five years.

Figure 10. COSMA Historical Groundwater and Surface Water Supplies (1994 to 2004)



Reference: City of Stockton Urban Water Management Plan 2000, December 2000 and COSMUD Staff

Data for municipal and industrial groundwater usage have been collected and are shown in **Figure 10**. Historical groundwater demands from agriculture and private well owners have not been measured and collated.

Section 10910(f)(4)

Section 10910(f)(4) requires a description of the projected volume and geographic distribution of groundwater extractions from the basin. This is presented in Section **10910(d)(1)** above.

Section 10910(f)(5)

Section 10910(f)(5) requires an analysis of the sufficiency of the groundwater basin to meet the demands associated with the project.

This is presented in Section **10910(d)(1)** above.

SECTION 4 - DETERMINATION OF SUFFICIENCY

The COS determines that it has sufficient water supplies to meet the water demands of the project.

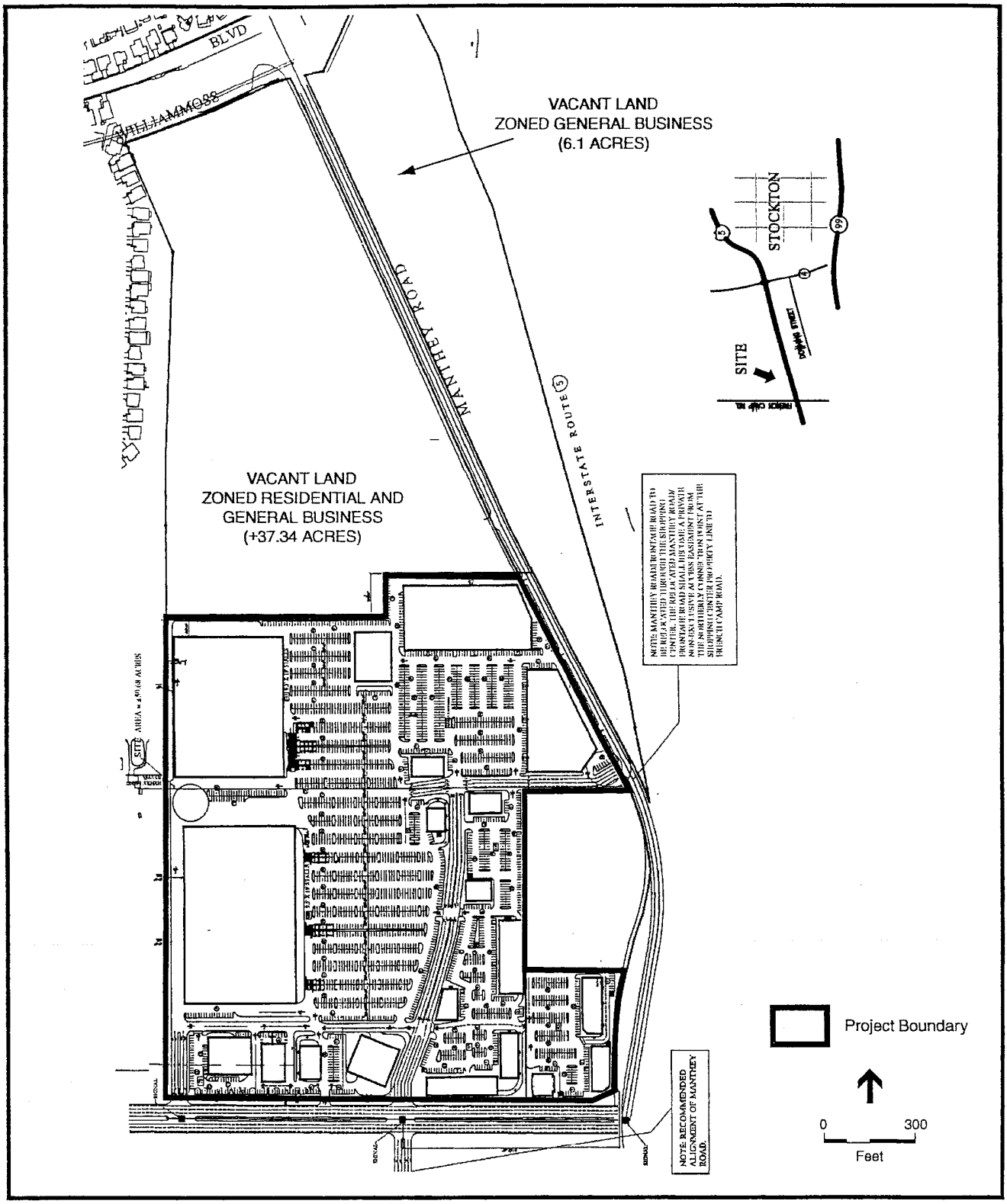
The COS makes this determination based on the information provided in this WSA and on the following specific facts:

- The existing near-term and long-term reliable supplies of SEWD surface water supplies and indigenous groundwater supplies can deliver a sustainable reliable water supply without impacting environmental values and/or impacting the current stabilization of the groundwater basin underlying the COSMA.
- The existing conjunctive use program of using SEWD surface water and COSMA groundwater supplies have been extensively analyzed as part of the DWSP Feasibility Report and groundwater studies completed as part of a regional WSA. Both studies show that sufficient water rights and available groundwater supplies exist for the project.
- The project will be served by water supplies made available through the existing COS conjunctive use program within the COSMA.

It should be noted that the determination of sufficiency for this project only represents the assessment of water supplies at this time and does not constitute a reservation of supply to serve this project. This Water Supply Assessment will remain valid for 24 months from the date of transmittal to the Community Development Department.

EXHIBIT "A"

Project Location Map



SOURCE: Vestar Development Co., Johnson Lyman Architects, and Environmental Science Associates, 2004

Figure 4
Proposed Project
Preliminary Site Plan

EXHIBIT "B"

Existing Surface Water and Wheeling Contracts

SECOND AMENDED CONTRACT

AMONG THE STOCKTON EAST WATER DISTRICT, THE CALIFORNIA WATER SERVICE COMPANY, THE CITY OF STOCKTON, THE LINCOLN VILLAGE MAINTENANCE DISTRICT, AND THE COLONIAL HEIGHTS MAINTENANCE DISTRICT PROVIDING FOR THE SALE OF TREATED WATER

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I	Resolution of the Board of Supervisors Relative to Colonial

The original contract ("Original Contract") was made the 11th day of February, 1975, among Stockton East Water District, a political subdivision of the State of California, hereinafter referred to as Stockton East, the California Water Service Company, a California corporation, hereinafter referred to as Cal-Water, the City of Stockton, a municipal corporation of the State of California, hereinafter referred to as City, the Lincoln Village Maintenance District, a political subdivision of the State of California, governed by the Board of Supervisors of San Joaquin County, hereinafter referred to as Lincoln, and the Colonial Heights Maintenance District, a political subdivision of the State of California, governed by the Board of Supervisors of San Joaquin County, hereinafter referred to as Colonial. This Second Amended Contract is made this _____ day of _____, 19__, by and among all the same parties as were parties to the Original Contract.

WITNESSETH THAT:

WHEREAS, Stockton East contemplated the construction of water treatment facilities which would permit treatment of raw water available to Stockton East and in turn make the same available for municipal and industrial use within Stockton East through Cal-Water, City, Lincoln and Colonial, which operate "municipal" water distribution systems within that portion of Stockton East commonly known as the Stockton Metropolitan Area; and

WHEREAS, it was anticipated that said water treatment facilities would have a nominal capacity to treat and distribute 20,000 acre feet of water per year and would be physically capable of treating additional quantities of water annually; and

WHEREAS, in order to construct said water treatment facilities, pursuant to authority granted to it by an affirmative vote at an election held on March 5, 1974, Stockton East sold revenue bonds pursuant to the Revenue Bond Law of 1941, which bonds have a maximum amortization period of not to exceed 30 years from the date of their issue; and

WHEREAS, said water treatment facilities have been constructed; and

WHEREAS, the purpose of constructing and operating the water treatment facilities was to assist in alleviating severe ground water overdraft problems especially in the western portion of Stockton East underlying the Stockton Metropolitan Area, and particularly to stop, or slow the

rate of, falling ground water tables and related saline intrusion from the west; and

WHEREAS, Stockton East with the concurrence of City, Cal-Water, and the Board of Supervisors of San Joaquin County has heretofore had prepared, approved and adopted a "Master Water Plan" and a "Contingency Water Plan" and an "Environmental Impact Report dated October, 1973" to serve as guidelines to Stockton East in solving the water problems of Stockton East and in providing solutions in the problems of ground water overdraft and saline intrusion, which plans, among other things, contemplated the construction of water treatment facilities; and

WHEREAS, since the construction of the water treatment facilities, there has been completed the Eastern San Joaquin Groundwater Study; and

WHEREAS, that Study demonstrates that an additional annual minimum of 30,000 acre feet of supplemental surface water must be imported into the Stockton Metropolitan Area in order to meet the needs of that area by the year 2020; and

WHEREAS, it is the desire and intention of all of the parties that said water treatment facilities, and the distribution of water treated by them, will be operated and conducted at all times in a manner which will have the most beneficial effect possible in reducing ground water overdraft, reducing the rate of lowering of underground water levels and of reducing saline intrusion into the ground water basin underlying Stockton East; and

WHEREAS, under date of August 25, 1970, Stockton East under its prior name of Stockton and East San Joaquin Water Conservation District, entered into contracts with the United States of America and the Calaveras County Water District by which Stockton East obtained a portion of the supply of water developed by New Hogan Dam on the Calaveras River; and

WHEREAS, under date of December 19, 1983, Stockton East entered into a contract with the United States Department of the Interior, Bureau of Reclamation, by which Stockton East obtained the right to a portion of the supply of water developed by New Melones Dam on the Stanislaus River, on an interim basis; and

WHEREAS, Stockton East has allocated a portion of its water supply from New Hogan Dam and New Melones Dam together with such other water supplies as it may have now and in

the future to said water treatment facilities so as to permit said water treatment facilities to produce a minimum of 20,000 acre feet of treated water per year; and

WHEREAS, in order to eliminate the present ground water overdraft and to meet its municipal and industrial and agricultural needs, Stockton East requires additional supplies of water in excess of those which it now obtains from New Hogan Dam and is now endeavoring to obtain the supplies of water which it requires from various sources which may now or in the future be available; and

WHEREAS, in order to make the most beneficial use of the water from New Hogan Dam, New Melones Dam, and any other source, it will be necessary to construct conveyance and storage facilities, and to expand the existing water treatment facilities; and

WHEREAS, a First Amendment to the Original Contract was made May 31, 1977, and expired March 31, 1978; and

WHEREAS, the parties hereto desire to enter into this Second Amended Contract so as to produce the maximum benefit to the underground basin by providing for a mechanism for the financing and construction of such conveyance, storage and expanded water treatment facilities as may be necessary, and by altering the method of payment of the base monthly payment under the Original Contract so as to provide maximum incentive for use of treated water in a cost effective and/or energy efficient manner thereby reducing the use of water produced from the underground basin; and

WHEREAS, Stockton East will perform studies necessary to provide recommendations to the Contractors intended to minimize energy efficiency; and

WHEREAS, it is the intent of the parties hereto that this Second Amended Contract shall apply to all treated water produced by the water treatment facilities, regardless of the source of raw water so treated;

Now, Therefore, It Is Agreed As Follows:

1. DEFINITIONS: When used herein, unless otherwise indicated expressly to the contrary, the following words, terms and phrases shall have the following meanings:

1A. "Acquisition and Construction Fund" means the fund having such name established and defined by the Bond Resolution.

1B. "Agricultural water" means water used primarily in the commercial production of agricultural crops or livestock, including domestic use incidental thereto, on tracts of land operated in units of more than 2 acres.

1C. "Annual Audit" means the audit to be undertaken each year, by a certified public accountant selected by Stockton East, in accordance with subparagraphs 5C and 6C.

1D. "Annually" refers to the 12-month period commencing on April 1 and ending on the next succeeding March 31st.

1E. "Base monthly payment" means the basic payment which each Contractor shall pay and which the Contractors together shall pay, the amount of which shall be calculated on an annual basis pursuant to Paragraph 5 and shall be paid on a monthly basis pursuant to Paragraph 6.

1F. "Base supply of raw water" means the minimum supply of raw water provided by Stockton East from various sources to meet the needs of the water treatment facilities, which base supply of raw water shall be 20,000 acre feet per year except as provided in subparagraphs 4J, 4K, and 4L.

1G. "Base supply of treated water" means the minimum supply of treated water which Stockton East will furnish from the water treatment facilities to Contractors in the manner set forth in this Second Amended Contract, which base supply of treated water shall be 20,000 acre feet per year except as provided in subparagraphs 4J, 4K, and 4L.

1H. "Bond Resolution" means the resolution adopted by Stockton East on February 20, 1975, identified as Resolution No. 74-75-21.

1I. "Bond Reserve Account" means the account held as a reserve fund by Stockton East, and used by Stockton East in accordance with the Bond Resolution.

1J. "Bond Sinking Fund Account" means the account having such name established and defined by the Bond Resolution.

1K. "Contractors" means the parties to this Second Amended Contract, other than Stockton East, or any other parties who may hereafter take water in accordance with Paragraph 13 and who further agree to be bound by all of the terms of this Second Amended Contract as the same now exists or as it may have been amended at the time such additional Contractors agree to take water and who agree in

writing to be bound by this Second Amended Contract or this Second Amended Contract as amended.

1L "Conveyance and Storage Facilities" means those facilities not at present constructed which Stockton East intends to construct in order to acquire, store and convey raw water to the water treatment facilities from sources other than New Hogan Dam.

1M. "Debt service" means the payments required to be ~~made during each year for principal, interest and other~~ charges to the holders of the water treatment facilities bonds, all in accordance with the schedule attached hereto as Exhibit "A", provided that debt service shall not include premiums on water treatment facilities bonds required to be called under the Bond Resolution except to the extent that any such premium in any year exceeds interest earned in such year on the Bond Sinking Fund Account.

1N. "Debt service surcharge" means an annual sum equal to 20% of annual debt service.

1O. "Initial delivery date" means March 10, 1977, the date of first delivery of treated water from the water treatment facilities into the distribution facilities of Cal-Water under the Original Contract.

1P. "Initial delivery of water" means the actual first delivery of treated water from the water treatment facilities into the distribution facilities of any one or more of the Contractors.

1Q. "Intake facilities" means the facilities constructed as a part of the water treatment facilities at Bellota, San Joaquin County, California, to divert water into the raw water transmission line.

1R. "Municipal and industrial share" means the percentage of the cost of acquisition of supplemental surface water from any source other than New Hogan Dam, including the cost of acquisition of such water and the cost of construction of conveyance and storage facilities which is allocated as municipal and industrial water by Stockton East as set forth in Paragraph 15. Such share shall be paid from the time the first payment becomes due regardless of whether all the municipal and industrial allocated water is in fact used for municipal and industrial purposes.

1S. "Municipal and industrial water" means water used for other than agricultural purposes.

1T. "New debt service" means the payments required to be made during each year, for principal, interest and other charges to the holders of any bonds which may be issued hereafter to finance expansion, additions to, or replacements of the water treatment facilities; and, in the event any bonds are issued to finance the acquisition, location or construction of Conveyance and Storage Facilities if any portion of the raw water conveyed or stored by such facilities is used by the Contractors as municipal and industrial water, new debt service shall include the municipal and industrial share of the payments required to be made during each year for principal, interest and other charges to the holders of such bonds.

1U. "New debt service surcharge" means an annual sum equal to the percentage of annual new debt service required as a surcharge by the controlling debt documents.

1V. "New Hogan Contracts" means the two contracts entered into under date of August 25, 1970, one between the United States of America and the Stockton and East San Joaquin Water Conservation District (now Stockton East) and the Calaveras County Water District, and the other between the Calaveras County Water District and the Stockton and East San Joaquin Water Conservation District (now Stockton East) which contracts together provide for a supply of water to Stockton East from New Hogan Dam.

1W. "New Hogan Dam" means the dam, reservoir and related facilities constructed in Calaveras County on the Calaveras River pursuant to the Act of Congress of December 22, 1944 (58 Stat. 887).

1X. "New Melones Contract" means that contract entered into under date of December 19, 1983, between Stockton East and the United States Department of the Interior, Bureau of Reclamation, by which Stockton East obtained the right to a portion of the supply of water developed by New Melones Dam, on an interim basis.

1Y. "New Melones Dam" means the dam, reservoir and related facilities constructed on the Stanislaus River pursuant to the Flood Control Acts of December 22, 1944 (58 Stat. 887) and October 23, 1962 (76 Stat. 1173).

1Z. "New Service Area" means an area not presently served by any of the Contractors.

1AA. "Nominal capacity" means the capacity of the water treatment plant to produce treated water under normal operating conditions. The water treatment plant construct-

ed pursuant to the plans and specifications described in subparagraph 5A of the Original Contract has a nominal capacity of 20,000 acre feet per year.

1BB. "North Stockton Aqueduct" means a pipeline extending from the water treatment plant to the approximate location of the intersection of Hammer Lane and Southern Pacific Railroad right-of-way in City, sufficient in size to serve that portion of the urban area north of the Calaveras River, together with a branch extending westerly along March Lane to El Dorado Street, and a branch extending westerly along Hammer Lane to West Lane.

1CC. "Noticed public hearing" means a public hearing held by the Board of Directors of Stockton East following at least 10 days notice given to each of the Contractors and further published at least once in a newspaper of general circulation published within Stockton East.

1DD. "Prime rate" means, during any year, the prime interest rate, as announced by the Bank of America, N.T.&.S.A. or its successor, in effect on April 1 of that year for the best credit risks of said Bank or its successor.

1EE. "Parties" means all of the parties to this Second Amended Contract or as the parties may hereafter be modified by the addition or subtraction of one or more contractors.

1FF. "Produced water" means water extracted from the underground by Stockton East or water otherwise developed or made available by Stockton East and not purchased from another agency or entity.

1GG. "Raw water" means the supply of untreated water made available to the water treatment facilities.

1HH. "Raw water transmission line" means the pipeline constructed as a part of the water treatment facilities extending from the intake facilities at Bellota, San Joaquin County, California, to the water treatment plant.

1II. "Southern Water System" means that water supply and distribution system operated by San Joaquin County which provides municipal and industrial water to the Airport, AirMetro Industrial Park, and surrounding Airport facilities; San Joaquin General Hospital, the County Jail Complex and Juvenile Justice Center, three migrant labor camps, County facilities in the Mathews Road area, and such

other areas as may be added to the system from time to time by action of the Board of Supervisors.

1JJ. "Surplus Account" means the account having such name established and defined by the Bond Resolution.

1KK. "Treated water" means water processed by the water treatment plant or other water meeting the requirements of Paragraph 12 made available in accordance with this Second Amended Contract to the Contractors by Stockton East.

1LL. "Water Fund" means the fund having such name established and defined by the Bond Resolution.

1MM. "Water treatment facilities" means (a) the water treatment plant, (b) the raw water transmission line, (c) all related facilities constructed by Stockton East pursuant to bond authorization obtained at an election held on March 5, 1974, and pursuant to all statutory authority including, but not limited to, Sections 53540 and 53541 of the Government Code, as amended, and further in accordance with the plans and specifications described in subparagraph 5A, of the Original Contract, and (d) those measuring devices selected, installed and maintained by Stockton East pursuant to paragraph 11 of this Second Amended Contract; all as they have been constructed or installed pursuant to the Original Contract and as they may be expanded, added to, or replaced after the commencement of the term of this Second Amended Contract.

1NN. "Water treatment facilities advances" means the total sum of money Stockton East advanced under the Original Contract from funds other than the proceeds of the water treatment facilities bonds, to the cost of the water treatment facilities, namely, the sum of $614,073.46, as set forth in the schedule attached hereto as Exhibit "C".

1OO. "Water treatment facilities bonds" means the bonds heretofore issued by Stockton East pursuant to the Revenue Bond Law of 1941.

1PP. "Water treatment plant" means the water treatment plant built by Stockton East generally in the vicinity of East Main Street and the Stockton Diverting Canal, near Stockton, San Joaquin County, California, as a part of the water treatment facilities, pursuant to the Original Contract, as such plant may be expanded, added to, or replaced after the commencement of the term of this Second Amended Contract.

1QQ. "Year" means each 12-month period commencing on April 1 and ending on the next succeeding March 31.

2. TERM.

2A. Effective Date of Second Amended Contract. This Second Amended Contract shall be effective immediately upon its execution by the last of the parties hereto to execute said Contract except that for all purposes the provisions of the Original Contract shall continue to control until ~~the North Stockton Aqueduct has been placed in service, at~~ which time the terms of this Second Amended Contract shall become operative. Notwithstanding the previous sentence, City shall construct and place in service the North Stockton Aqueduct on or before October 31, 1988. This Second Amended Contract shall remain in effect until April 1, 2035.

2B. Replacement of Original Contract. This Second Amended Contract shall replace the Original Contract as soon as it shall take effect, except that where in this Second Amended Contract reference is made to provisions of the Original Contract, those provisions so referred to shall remain in effect. Those back sums referenced in Paragraphs 13 and 14 of the Original Contract shall continue to be due and shall be paid, until paid in full, as though the Original Contract were still in effect.

3. RENEWAL: CONTINUED SERVICE:

3A. Renewal: Each Contractor shall have the right, upon written notice to Stockton East given not less than six months prior to expiration of the initial or any renewal term of this Second Amended Contract, to extend the term of this Second Amended Contract for such term and upon such terms and conditions as Stockton East and the Contractor giving such notice shall agree upon in writing. Promptly after receipt of such notice Stockton East and such Contractor shall negotiate as to the terms and conditions of such renewal contract for such renewal term. The terms and conditions of any such renewal contract shall not be more favorable to one Contractor than those of any such renewal contract between Stockton East and another Contractor.

3B. Continued Service: After the expiration of the initial or any renewal term of this Second Amended Contract, each Contractor shall be entitled to continued service under the following conditions:

3B(1). Service of water in annual percentage amounts determined in accordance with the provisions set forth in Paragraph 4.

3B(2). Service of water shall be at charges to be mutually agreed upon by the parties, provided, however, that if such charges cannot be agreed upon, then service shall be continued at charges calculated in the same manner as applicable during the preceding initial or renewal term, as the case may be.

3B(3). Other terms and conditions of continued service shall be reasonable and equitable and shall be mutually agreed upon, provided, however, that if the parties cannot agree upon such other terms and conditions, continued service shall be in the manner and under all the terms and conditions applicable during the preceding initial or renewal term, as the case may be.

3B(4). If a Contractor shall have given Stockton East written notice of its election to enter into a renewal contract as provided in subparagraph 3A, and if upon expiration of the initial or extended term of this Second Amended Contract, as the case may be, the parties shall not have executed such renewal contract, then such Contractor shall be entitled to continued service under the provisions of this subparagraph 3B.

3C. One Contractor May Renew: The failure of one or more Contractors to enter into a renewal contract or to receive continued service pursuant to the provisions of subparagraph 3A or 3B, as the case may be, shall not prevent any other Contractor from exercising its right to enter into a renewal contract or to receive such continued service, as the case may be.

4. WATER TO BE FURNISHED TO THE CONTRACTORS:

4A. Obligation of Stockton East: Stockton East shall undertake all steps necessary to permit it to operate and maintain the water treatment facilities in order to meet the obligations of Stockton East under this Second Amended Contract. Stockton East shall only be excused from the performance of its obligations under this subparagraph 4A in the event of its performance being prevented by conditions beyond its control, such as, but not limited to an inability to raise sufficient funds to construct said water treatment facilities.

4B. Water to be Made Available: Subject to the provision of subparagraphs 4J, 4K, 4L and 5G, Stockton East

shall make available to the Contractors a minimum of 20,000 acre feet of treated water during each year of the term of this Second Amended Contract. Water shall be allocated among the Contractors in the following manner: Each Contractor shall have the right to take on a continuing monthly basis an amount of treated water equal to the current percentage applicable to such Contractor calculated by Stockton East in accordance with Paragraph 4H hereof multiplied by the aggregate amount of treated water delivered by Stockton East during such month. Nothing in this paragraph will prohibit any Contractor from taking more than its percentage of entitlement at any time to the extent that any other Contractor is not able to use its applicable percentage of entitlement. However, each of the parties hereto agrees to exert its best efforts to use its full proportional water entitlement and to cooperate to see that each Contractor, to the extent possible, receives its full entitlement, both in an energy-efficient and/or cost-effective manner.

4C. Emergency Conditions. In the event of the occurrence of an emergency or other condition beyond the control of a Contractor which requires such Contractor to use more than the percentage of treated water to which it is then entitled hereunder in order to meet the health or safety needs of its consumers, and in the event there is no unused treated water then available, the remaining Contractors ("Remaining Contractors") agree to make available on a temporary basis upon written request therefor from the Contractor so in need (the "Requesting Contractor"), sufficient water to meet such health or safety needs provided that the Requesting Contractor shall pay the Remaining Contractors within 60 days of written demand therefor any actual extra costs, including the cost of replacing the water so provided, and a 15% surcharge for overhead and administration, incurred by the Remaining Contractors by reason of making such treated water available to the Requesting Contractor. The Requesting Contractor shall diligently prosecute all reasonable corrective measures to restore full service independent of water so made available by the Remaining Contractors.

4D. Additional Water: To the extent Stockton East so determines, it will make available to Contractors through the water treatment facilities quantities of water in addition to the base supply of treated water annually. Such additional water shall be made available on a pro-rata basis to the Contractors in accordance with percentages currently allocated to each Contractor pursuant to this Paragraph 4. It is understood that the ability of Stockton East to deliver such additional water on a pro-rata basis

will be dependent upon various factors involving the combined operations of the water treatment facilities and the distribution systems of each of the Contractors. However, the parties agree that they shall together use their best efforts to permit the utilization of such additional water, as well as the base supply, on such pro-rata basis.

4E. Acceptance of Treated Water: The Contractors shall use their best efforts to accept treated water, including both the base supply under Paragraph 4B and any additional water under Paragraph 4D, made available to the Contractors to the extent of the physical capacity of the combined systems and the physical capacity of each Contractor to take and use such water at the times that it is made available, and each Contractor shall undertake all reasonable methods of operation necessary to permit the use of such water, rather than water pumped from the underground, within their respective systems when such water is made available, whether as a part of the base supply or as additional water. Each Contractor shall either construct necessary physical systems to facilitate the taking of water provided to it under this Second Amended Contract or shall arrange through wheeling agreements for the use of the physical systems of other Contractors. The City will construct and place in service the North Stockton Aqueduct (as defined herein) on or before October 31, 1988. Each of the parties hereto agrees to cooperate, to the extent feasible in the operation of its system, to the end that each Contractor receives its full entitlement of treated water in an energy efficient and/or cost effective manner, provided, however, that (unless otherwise mutually agreed) each Contractor shall bear its fair share of the cost of any joint use or jointly owned facility and the expense of operation and maintenance thereof. To this end, the Contractors shall, as necessary, enter into wheeling agreements, subject to all the provisions of this Second Amended Contract. In the event agreement as to the terms of any such wheeling agreement cannot be reached within ninety (90) days of opening of negotiations on any such wheeling agreement, any party to such wheeling agreement negotiation may initiate binding arbitration in accordance with the California Arbitration Act (Code of Civil Procedure §§1280 and following), with the following provisions: Each party shall appoint one arbitrator, who may be any person; the arbitrators so appointed shall appoint a neutral arbitrator, who may be any person and who shall be the sole decision-maker; the scope of arbitration shall be limited to the terms to be included in the wheeling agreement. Nothing in this Paragraph 4E contained shall, however, be deemed to obligate any Contractor to make its facilities, or any part thereof, available for use of any other Contractor unless

there is adequate capacity available in such facilities for such use of the second Contractor. No Contractor shall extend service to a new service area relying on the conveyance facilities of any other Contractor except by mutual agreement. No Contractor shall be under any obligation to dedicate all or any portion of its facilities to the use of any other Contractor hereunder. The foregoing provisions of this Paragraph 4E shall not limit the mutual undertakings of the Contractors set forth in Paragraph 4C to make water available on a temporary basis to a Requesting Contractor in the event of an emergency or other condition beyond the control of the Contractor.

4F. Scheduling of Maintenance: Any repairs, maintenance, replacement, or other work which will necessitate taking all or a portion of the water treatment facilities out of operation shall, to the extent practical, be undertaken each year between November and February, inclusive.

4G. Standard of Operation: Stockton East shall, at all times during the term hereof, operate and maintain the water treatment facilities in accordance with good and accepted waterworks practices.

4H. Calculation of Percentage: On or before September 1 of each year, each Contractor shall provide to Stockton East, in form designated by Stockton East, data, sufficient in Stockton East's determination, to enable Stockton East to calculate the total amount of water produced by that Contractor during the previous Year from all sources, whether from wells, Stockton East, or other providers or sources. On or before the October 1 next succeeding the provision of such data, Stockton East shall calculate for each Contractor a percentage determined by dividing the total amount of water produced by each Contractor, as calculated by Stockton East from the data provided to Stockton East, by the sum of such totals for all Contractors, and multiplying by 100. Such percentage so determined for each Contractor shall be the percentage applicable for each Contractor respectively in accordance with paragraphs 4 and 5, for the Year next succeeding such calculation and Stockton East shall promptly notify the Contractors of each such percentage. Stockton East's determination of the percentages shall be final.

4I. Minimum Amount: Notwithstanding any other provision of the Original Contract or of this Second Amended Contract, in consideration of the consent by Cal Water to a reduction in its minimum allocation of 18,500 acre feet of treated water yearly from the existing 20,000 acre feet [illegible] capacity of the water treatment plant set forth in

the Original Contract to an amount based on its total water production from all sources as a percentage of all Contractors' total water production from all sources as determined in Paragraph 4 hereof, Stockton East hereby agrees to deliver to Cal Water (on a monthly basis) during each Year a minimum of not less than one-half of the total treated water available for delivery to all Contractors. The Contractors other than Cal Water hereby agree and consent to such agreement by Stockton East regardless of whether, as a result of such deliveries to Cal Water pursuant to such agreement, the amount of treated water delivered to such other Contractors, or any of them, during any year may be less than the amount determined under Paragraph 4B by use of the applicable percentage determined under Paragraph 4H hereof and regardless of whether the amount of treated water may be insufficient in any year to meet the allocation of such other Contractors so determined under Paragraph 4B by use of the applicable percentage determined under Paragraph 4H after first meeting the allocation of Cal Water, Cal Water. After so meeting such allocation of Cal Water, the remaining treated water shall be allocated on a prorata basis among such other Contractors based on their respective applicable percentages determined under Paragraph 4H. The provisions of this Paragraph shall remain in effect until Conveyance and Storage Facilities have been constructed which deliver to the water treatment plant raw water sufficient in amount to increase the annual nominal capacity of that plant from 20,000 acre feet to 30,000 acre feet.

4J. Lack of Availability of Raw Water: Subject to subparagraph 5G, Stockton East shall be excused from its obligation to deliver annually a minimum of 20,000 acre feet of treated water, without Contractors being excused from making their respective payments to Stockton-East required by this Second Amended Contract during any Year in which there is available to Stockton East, from all sources, less than a total for all uses of 20,000 acre feet of raw water. In such event Stockton East shall during such a Year deliver as much water as it does have available but shall have no liability for its failure to deliver more.

4K. Failure of System to Accept Water: Subject to subparagraph 5G, Stockton East shall also be excused from its obligation to deliver a minimum of 20,000 acre feet of water in any Year during which the combined systems of Contractors fail to accept a full 20,000 acre feet of water due to operational or physical limitations and in such event Stockton East shall deliver as much water as is operationally possible but shall not be obligated to deliver the full 20,000 acre feet of water during such a Year, and in

such event the Contractors shall not be excused from making their respective payments to Stockton, East required by this Second Amended Contract.

4L. Inability to Deliver Treated Water: Subject to subparagraph 5G, Stockton East shall also be excused from its obligation to deliver water without the Contractors being excused from payment during any period, not exceeding 18 months, of failure by Stockton East to deliver treated ~~water for any reason. In the event of a failure by~~ Stockton East to deliver treated water to Contractors, then to the extent practical and to the extent of the capacity of the water treatment facilities, the availability of raw water, and the ability of Contractors' systems to accept water, Stockton East shall subsequently during the Year of such a failure, make up any quantity required to be delivered as a part of the base supply of treated water.

4M. Allocation of Deficiency: Any deficiency resulting due to conditions mentioned in subparagraphs 4J, 4K and 4L shall be allocated among the Contractors on a proportional basis in accordance with the percentages currently allocated to each Contractor pursuant to this Paragraph 4.

5. PAYMENT BY CONTRACTORS.

5A. Amount to Be Paid Annually: In exchange for Stockton East agreeing to make available to Contractors treated water in the manner set forth in Paragraph 4 and otherwise operating in accordance with this Second Amended Contract, the Contractors together shall pay annually, in equal monthly installments estimated, computed, and paid as set forth in Paragraph 6, to Stockton East, regardless of the amount of water actually delivered to Contractors and regardless of whether any water is delivered at all, subject to subparagraph 5G, the sum of the following:

5A(1). Debt service and the debt service surcharge for the subject Year together with 30 equal annual payments calculated to amortize the total water treatment facilities advances with interest at the average interest rate applicable to the water treatment facilities bonds, provided, that, there shall be deducted from the amount of the water treatment facilities advances the aggregate of the sums which have been applied to the water treatment facilities advances either directly from the proceeds of the water treatment facilities bonds or from sums made available pursuant to Paragraph 4 of the Original Contract.

5A(2). New debt service and the new debt service sur-

5A(3). A sum equal to the aggregate of the following:

(a) the cost of expansion of, additions to, or replacements of, the water treatment facilities,

(b) the municipal and industrial share of the cost of acquisition of supplemental surface water from any source other than New Hogan Dam, and

(c) the municipal and industrial share of the cost of construction and acquisition of Conveyance and Storage Facilities, less the aggregate of all payments on account of such costs heretofore made by the Contractors, and plus interest at the prime rate for one Year on the remaining balance of such costs, divided by the number of Years remaining in the term of this Second Amended Contract, provided, however, that those costs itemized in the preceding clauses (a), (b) and (c) shall be included only if and to the extent that they have not been financed by the issuance of bonds and/or paid for from reserves established and maintained by Stockton-East pursuant to the provisions of the Bond Resolution, the Original Contract or this Second Amended Contract.

5A(4). The annual adjusted price of the raw water delivered to the water treatment plant including both the base supply of raw water and any additional water which may be delivered to and accepted by the Contractors. The adjusted price of raw water shall be determined annually for each applicable Year as follows:

5A(4)(a). From the total actual cost of all water purchased in any Year by Stockton East there shall be deducted any charges of any kind imposed by a purveyor of raw water to Stockton East on the use or required scheduling of municipal and industrial water, as opposed to agricultural water.

5A(4)(b). The amount so obtained pursuant to subparagraph 5A(4)(a) shall then be multiplied by a fraction, the numerator of which shall be the amount of raw water delivered to the water treatment plant during the year and the denominator of which shall be all water purchased or produced by Stockton East during the year. For purposes of the denominator, water shall be measured as follows:

5A(4)(b)(i) Water purchased from New Hogan Dam shall be the amount of water released from New Hogan

Dam less the amount of water diverted within Calaveras County as such diversions within Calaveras County are measured or determined from time to time by agreement between Stockton East and the Calaveras County Water District.

5A(4)(b)(ii) In measuring surface water from sources other than New Hogan Dam the water shall be measured at the point at which such water is measured for purposes of payment by Stockton East to the purveyor of such water.

5A(4)(b)(iii) Produced water shall be measured at the point of production.

5A(4)(c). It is understood by the parties that the provisions of this subparagraph 5A(4) shall not be deemed to control the present or future agricultural water rates or charges of Stockton East.

5A(4)(d). To the amount so obtained there shall then be added, in order to obtain the adjusted price of raw water, all charges, of any kind imposed by a purveyor of raw water to Stockton East on the use or required scheduling of municipal and industrial water as opposed to agricultural water, but excluding any minimum payments made for municipal and industrial water not used in order to make such water available in the future, but including interest charges payable by Stockton East under the New Hogan Contracts, the New Melones Contract, or any other contract for the purchase of raw water by Stockton-East in the future.

5A(4)(e). In the event that in the future water is delivered by Stockton East to water treating facilities in addition to the water treatment plant, then the adjusted price for raw water shall be calculated for all water delivered to water treating facilities and shall then be apportioned among the various water treating facilities on an equal per acre foot basis.

5A(5). The actual operation, maintenance, repair and replacement costs directly attributable to the water treatment facilities for the annual production of the base supply of treated water less sums drawn against the Repair and Replacement Reserve Account pursuant to the provisions of Paragraph 8 of the Original Contract. It is understood that no item for depreciation shall be included in the sums calculated and paid pursuant to Paragraphs 5 and 6.

5A(6). An amount equal to the actual cost of administrative services attributable to the operation of the water [illegible] facilities and the administration of this Second

Amended Contract including, but not limited to, management time and required legal, accounting, and consulting engineering services, and the actual cost of paying agents or other services which Stockton East requires in processing and making payments on the water treatment facilities bonds, or any other related bonds.

5A(7). The actual cost of insurance for the water treatment facilities, and Conveyance and Storage Facilities, including, but not limited to, casualty and liability and including fire, and extended coverage, at full replacement value, but excluding "loss of revenue" insurance.

5A(8) A sum equal to the actual cost of operation, maintenance, and repair of the wells, pumps, conduits, and related facilities enumerated in Paragraph 8, including both costs arising on account of actual operation and costs arising on account of necessary standby facilities for use in future Years when such production facilities may be required.

5A(9) The annual payments required by Paragraphs 7 and 8 into the reserve funds established by Paragraphs 7 and 8.

5A(10) The sum of $100,000, to be paid into the Water Treatment Facilities Reserve Fund established by Paragraph 9; said sum of $100,000 to be adjusted from time to time by Stockton East, provided that:

5A(10)(a) Prior to any initial or subsequent adjustment in said sum of $100,000, Stockton East shall obtain a written report, or reports, from one or more registered civil engineers as to the need for funds to meet expenditures described in subparagraph 9C.

5A(10)(b) Prior to any initial or subsequent adjustment upward in said sum of $100,000, the Board of Directors of Stockton East shall hold a noticed public hearing to consider such upward adjustment.

5A(10)(c) Said sum of $100,000 shall in no event be reduced below $100,000 and shall only be adjusted above $100,000 for the purpose of meeting expenditures described in subparagraph 9C.

5B. Credit: Against the sums due under subparagraph 5A there shall be allowed as a credit, a sum calculated in a manner established by resolution of the Board of Directors of Stockton East for the use of the raw water transmission line and intake facilities for delivery of water to

users and uses other than the water treatment plant, provided that prior to initially adopting or thereafter altering said method of calculation the Board of Directors of Stockton East shall first hold a noticed public hearing relative to such method of calculation.

5C. Audit: The annual amount of operations, maintenance, repair and replacement, the cost of necessary and desirable improvements, and modifications to the treatment ~~facilities, the cost of acquisition of surface water from~~ any source other than New Hogan Dam, the cost of construction of Conveyance and Storage Facilities and the cost of necessary and desirable improvements and modifications thereto, the cost of administrative services, charges for raw water, and the amount of all other variable costs, charges, credits, and funds shall be determined each year by Stockton East and thereafter audited and reported upon by an independent certified public accountant selected by Stockton East as set forth in subparagraph 6C.

5D. Allocation of Charges: The charges imposed by this Paragraph 5 shall be allocated among the contractors annually in proportion to the percentage currently allocated to each contractor pursuant to Paragraph 4.

5E. Payment Adjustments: Notwithstanding any other provision of this Second Amended Contract, City shall pay an estimated sum of $5,856,586 and Lincoln Village and Colonial Heights Maintenance Districts combined shall pay an estimated sum of $582,690 to Stockton East as consideration for the purchase of water entitlements, which entitlements had been previously allocated under the Original Contract to Cal-Water. The sums shall be paid in equal monthly installments commencing at the date the Second Amended Contract becomes operative and extended thereafter for 15 years.

As and for consideration to Cal Water to terminate the Original Contract and enter into the Second Amended Contract, the base monthly payment which Cal Water would otherwise be obligated to pay under this Paragraph 5 shall be reduced by an estimated sum of $6,439,276 which credit shall be applied in equal monthly installments on a monthly basis during each month commencing at the date the Second Amended Contract becomes operative and extended thereafter for 15 years. The above-mentioned estimated sums shall be adjusted to the actual amounts applicable to each Contractor as of the date that the North Stockton Aqueduct is placed in service, in accordance with Paragraph 2A of this Second Amended Contract. Such actual amounts shall be [illegible] Stockton East.

Notwithstanding any other provision of this Second Amended Contract to the contrary, Lincoln Village and Colonial Heights Maintenance Districts shall make payment to Stockton East solely on the basis of a charge per acre foot of water computed by Stockton East to be applicable to the Lincoln Village and Colonial Heights Maintenance Districts for their allocation of surface water as computed under Section 4H, which charge shall be equal to the unit cost per acre foot payment made by any other Contractor pursuant to the payment provisions within this Second Amended Contract with the exception of payments made under Section 5E. The payment of the charge will be made on a monthly basis.

5F. Further Adjustments: It is agreed that in the year 2016, and each tenth (10th) year thereafter, the contractors will review the payment of capital costs with bonded indebtedness as compared to water allocation and make such adjustments to future payments as appropriate to adjust any inequities.

5G. Failure to Continue Service: Following any period of 18 months during which Stockton East fails to make available to Contractors at least 7,500 acre feet of treated water, the Contractors shall be excused from making the payments required pursuant to this Second Amended Contract until such time as Stockton East is prepared to, and has, restored the normal service contemplated by this Second Amended Contract. In the event of any failure of the raw water supply, damage or destruction of all or a portion of the water treatment facilities, or any other cause preventing Stockton-East from making available to Contractors the quantities of water contemplated by this Second Amended Contract, Stockton East shall use its best efforts to restore full service promptly. In the event of damage to or destruction of the water treatment facilities, any insurance proceeds shall be applied to repair and reconstruction. In the event that all or a portion of the water treatment facilities are taken or damaged by condemnation by, or conveyed by Stockton East to avoid or compromise any condemnation proceeding to, a public agency not assuming the obligations of this Second Amended Contract, then Stockton- East shall use any proceeds from such a condemnation or conveyance in the manner required by the Bond Resolution.

6. TIME AND MANNER OF PAYMENT:

6A. Monthly Payments: Payment of the annual sum due pursuant to Paragraph 5 shall be as set forth in this Paragraph 6. There shall be a base monthly payment made as set

forth in this Paragraph 6. Payment shall be made monthly on the first day of each month.

6B. Proration: During the term of this Second Amended Contract payments which cover less than a full month or which cover less than a full Year's service shall be prorated accordingly.

6C. Procedures for Audit: Actual and variable costs and other items subject to audit shall be audited and reported upon by an annual audit as set forth in subparagraph 5C. The audit shall be commenced each Year not later than July 1 next following the close of each Year. The annual audit shall be completed not later than December 31 succeeding the close of the Year being audited. Each audit shall cover a full Year commencing on April 1 and ending on March 31. In the event that an annual audit discloses a necessary adjustment or correction in any amount or fund, then such adjustment or correction shall be applied to the base monthly payment to be paid during the Year next succeeding the completion of such an annual audit. Three copies of the annual audit report shall be furnished to each Contractor without expense promptly after receipt by Stockton East.

6D. Establishing Base Monthly Payment. The base monthly payment shall be calculated annually as follows:

6D(1) On or before the first day of October annually Stockton-East shall announce a new base monthly payment to be applicable during the next succeeding Year.

6D(2) The base monthly payment which shall be announced annually pursuant to subparagraph 6D(1) shall be an estimate, which estimate shall be made by Stockton East to include the following:

6D(2)(a) Debt service, the debt service surcharge, new debt service, new debt service surcharge, and any payment toward water treatment facilities advances required by subparagraph 5A(1) for the subject Year and for costs established in subparagraph 5A(3).

6D(2)(b) A sum based on an estimate of the actual cost of variable items as anticipated for the forthcoming Year during which said base monthly payment will be applicable. The estimate so made is to be made following a survey of current and anticipated costs of the subject items and in consideration of information disclosed by the last available required audit and records of Stockton East for the immediately preceding Year.

6D(2)(c) The application of any credit which it is estimated may be due the Contractors.

6D(2)(d) A sum necessary to make any corrections because of overpayments or underpayments arising because of variance between estimates and actual experience during the preceding Year and any corrections or adjustments disclosed as necessary by the last available audit.

6D(2)(e) A deduction for all sums collected pursuant to Paragraph 6D(3), for the previous year, in excess of that amount required for the groundwater production fund, as determined by Stockton East.

6D(3) Stockton East shall annually levy a municipal groundwater assessment, pursuant to its enabling legislation such that the cost of groundwater use is equivalent to the cost of surface water use. That portion of such assessment which is deducted pursuant to paragraph 6D(2)(e) shall be paid to meet costs set forth in paragraph 6D(2)(a) and 6D(2)(b).

6E. Public Hearing On Base Monthly Payment: Annually prior to announcing the base monthly payment for the next Year the Board of Directors of Stockton East shall hold a noticed public hearing to consider the amount of said base monthly payment.

6F. Final Payments: During the 12 months next following the availability of the audit of the last 12 months preceding the cessation of service pursuant to this Second Amended Contract, and any extension, continuation, or renewal thereof, 12 final monthly payments shall be made which together shall adjust any differences among the parties between the last base monthly payment and actual experience during the last 12 months as confirmed by audit of operations for the last 12 months.

7. REPAIR AND REPLACEMENT RESERVE ACCOUNT:

7A. Maintenance of Repair and Replacement Reserve Account: Stockton East has established and shall maintain during the term of this Second Amended Contract a reserve account for the purpose of covering the cost of repairs and replacement of items scheduled pursuant to subparagraph 7B which are required during the life of the Second Amended Contract in order to maintain the water treatment facilities in good order and at all times able to meet efficiently the production of the water to be supplied pursuant to this Second Amended Contract. The account identified in

this Paragraph 7 is the same as the Repair and Replacement Reserve Account established by the Bond Resolution.

7B. Amount of Annual Payment: There is attached hereto as Exhibit "D" a major repair and replacement schedule which schedule has been prepared with the assistance of the engineers who designed the water treatment facilities and which sets forth an estimate of such anticipated major repair and replacement expenses during the life of the Second Amended Contract and the amount of level annual payments sufficient to provide a reserve account adequate to meet the expenses anticipated by said schedule.

7C. Adjustment of Payment and Use of Account: Payment shall be made by the Contractors annually as a part of the total payment required by Paragraph 5 into the Repair and Replacement Reserve Account in accordance with the payment schedule established by Exhibit "D". Payments to be made into the reserve fund shall be adjusted from time to time, by Stockton East to meet actual operating experience, provided that prior to any such adjustment the Board of Directors of Stockton East shall first hold a noticed public hearing. Any sums drawn against the Repair and Replacement Reserve Account shall be deducted from the actual charge for operation, maintenance, and replacement made pursuant to subparagraph 5A(5).

8. WATER DEFICIENCY RESERVE FUND: It is recognized that pursuant to the New Hogan Contracts Stockton East in some years may be required to take a 25% deficiency in its New Hogan Dam water supply. In order to furnish Contractors with a minimum of a full 20,000 acre feet of water per year Stockton East agrees that it will purchase water, or construct, install, or acquire such wells, pumps, conduits, and related facilities as may from time to time be required to permit Stockton East to take such water from the underground annually as may be necessary to augment an annual deficiency of as much as 25% in the base supply of raw water. In order to place itself in a position to meet the obligations of this Paragraph 8 Stockton East has established a Water Deficiency Reserve Fund into which it shall deposit annually a sum set by the Board of Directors of Stockton East. The amount so deposited shall not in any Year exceed an amount equal to ten cents multiplied by the total number of acre feet of water delivered to the water treatment plant during the subject Year. Funds in said Water Deficiency Reserve Fund may be applied by Stockton East at such time as Stockton East may from time to time determine is appropriate to the construction or other acquisition of such wells, pumps, conduits, and related facili- ties, and to do any other acts necessary on the part of

Stockton East in its judgment to furnish the base supply of treated water to Contractors annually. In the event that during the term hereof Stockton East by act of the California legislature is granted special powers to levy taxes or assessments for the purposes specified herein and such taxes or assessments are applicable to the treated water which is the subject of this Second Amended Contract, then this Paragraph 8 shall be inapplicable and of no force and effect.

9. WATER TREATMENT FACILITIES RESERVE FUND: Stockton East has established and shall maintain during the term of this Second Amended Contract a Water Treatment Facilities Reserve Fund. There shall be deposited in that fund at the end of each Year the sums paid to Stockton East pursuant to subparagraphs 5A(10). Stockton East may, at any time, make withdrawals from said Water Treatment Facilities Reserve Fund and expend such funds as Stockton East determines, provided that such expenditures are limited to the following purposes:

9A. Debt Service: Debt service, including the call and redemption of bonds prior to fixed maturity date.

9B. Operation and Maintenance: Operation, maintenance, and repair of the water treatment facilities including the items listed in subparagraphs 5A(4) through 5A(8).

9C. Replacement and Expansion: Necessary or desirable replacement, expansion, improvement, modification, and increase in the capacity of the water treatment facilities.

10. SCHEDULING OF WATER: From time to time as is necessary and convenient, and at least once each year during the month of March representatives of the Contractors and Stockton East shall meet and confer as to available raw water and the scheduling of the delivery of treated water to the Contractors. Following such conferences Stockton East shall, from time to time announce schedules for the delivery of treated water to Contractors and to each Contractor. The schedules so announced, from time to time, shall be developed in a manner to permit making maximum use of the treated water which may be available subject to the respective demands of Contractors' systems. It is also understood that schedules announced pursuant to this Paragraph 10 shall be goals toward which Stockton East and the Contractors shall work in operating the water treatment facilities and the respective distribution systems of Contractors, but it is understood that such goals may not in every instance be achieved.

11. MEASUREMENT: Necessary measurement of water to permit compliance with this Second Amended Contract shall be by recording measuring devices selected by Stockton East and installed and maintained by Stockton East and subject to inspection at all times by the Contractors.

12. QUALITY: Stockton East has obtained and shall maintain in effect during the term of this Second Amended Contract a permit to operate the water treatment facilities from the California Department of Health Services. At all times Stockton East will use its best efforts to the end that the quality of water delivered by it pursuant to and in satisfaction of this Second Amended Contract meets or exceeds requirements as to water for human consumption of the Department of Public Health of the State of California, the United States Environmental Protection Agency and their respective successors. The Contractors shall likewise use their best efforts to meet or exceed such requirement with respect to water delivered by the Contractors to their respective customers or users.

13. OTHER CONTRACTORS: It is recognized that another Contractor, not a party hereto at this time, could take water. The parties hereto agree that no such Contractor shall be furnished water on terms more favorable than those made available to the Contractors at the date such a new Contractor agrees to take water and to be bound by this Second Amended Contract. No additional Contractors will be added to this Second Amended Contract without the express written consent of all the existing Contractors, which consents shall not be unreasonably withheld. Notwithstanding the provisions herein, the Southern Water System may become a Contractor under this Second Amended Contract, upon written notice to the other parties hereto.

14. OPERATIONS: Stockton East shall at all times make all reasonable efforts to operate the water treatment facilities in a manner in accordance with the currently applicable schedule adopted as set forth in Paragraph 10. In so operating Stockton East will endeavor to meet the full water demand of the systems of the Contractors during periods of low demand. During periods of high demand it is understood that all systems may be required to operate ground water pumps in order to meet peak loads. Water will be delivered into the systems of Contractors by delivery to Cal Water at the point shown on Exhibit "B". Such water delivery points may later be changed, and new delivery points may be created.

15. CONSTRUCTION OF NEW FACILITIES: The parties recognize that in order to meet the increased demand for treated

water in the Stockton Metropolitan Area it will be necessary for Stockton East to acquire water from sources other than New Hogam Dam and in order to transport such water to the water treatment facilities it will be necessary to construct Conveyance and Storage Facilities. The cost of acquiring such additional water, the cost of the Conveyance and Storage Facilities, and the respective agricultural share and municipal and industrial share of such costs are presently unknown. Since the Contractors will be the parties ultimately responsible for payment of such municipal and industrial share, the engineering feasibility of such ~~project and the cost thereof are matters of vital interest~~ to them. Accordingly, Stockton East agrees that it will consult with the Contractors on any such proposed acquisition or construction, together with engineering details and details as to the cost thereof, the municipal and industrial share of all such costs to be allocated to the Contractors, the proposed financing plan, the financial impact on the Contractors, and other pertinent aspects of the overall project. If all Contractors approve the plan in writing, then Stockton East may proceed in accordance with law. If any Contractor shall not approve within thirty days of a request for approval by Stockton East, the proposed plan shall be submitted to a vote of the electors of Stockton East, and the results of such vote shall be final and binding on all Contractors.

16. ATTORNEYS FEES AND COSTS: In any case where court action is instituted by one or more parties against one or more other parties to interpret this Second Amended Contract, the rights of the respective parties hereunder, or to enforce a right or obligation created by this Second Amended Contract, the prevailing party or parties shall receive costs and reasonable attorneys fees to be set by the court.

17. SUCCESSORS: This Second Amended Contract shall bind and inure to the legal successors of the parties and is not made for the benefit of any other parties. Any Contractor may assign all or any part of this Second Amended Contract to a public agency having the power of eminent domain. In the event of any such assignment of all of a Contractor's interest in this Second Amended Contract, the Contractor so assigning shall be relieved from all further obligations under this Second Amended Contract. In the event of such an assignment of a part of a Contractor's interest under this Contract the Contractor so assigning shall remain obligated for the remainder of its obligations under this Second Amended Contract.

18. DEFAULT AND REMEDIES:

18A. Interest: Any sum due hereunder and not paid when due shall bear interest at the prime rate until paid in full.

18B. Remedies: If any Contractor shall fail to cure or correct any default, including, but not limited to payment of any sum when due, then following 10 days written notice of such default to the defaulting Contractor, ~~Stockton East shall have, without further notice or demand~~ and without one remedy excluding any other, all remedies at law, in equity, or as set forth below:

18B(1). The discontinuance of service until the default is remedied and in the event of such a discontinuance of service Contractor shall continue to be liable for the accrual of the base monthly payment or payments accruing during such period of discontinued service. In the event of a discontinuance of service to any Contractor, written notice of such cessation shall be given by Stockton East to all of the Contractors and, if discontinuance of service requires a cessation of wheeling, the Contractors providing wheeling shall cease wheeling, and Stockton East shall, and hereby agrees to, hold harmless and indemnify any Contractor from liability which might arise following such a written notice of the cessation of wheeling.

18B(2). The collection by suit of any sums due, it being understood that the collection by suit of any sums due shall not waive or terminate a Contractor's continuing obligation to make all required payments to Stockton East.

19. NOTICES: Notices required or permitted to be given under this Second Amended Contract shall be made by all parties as provided herein. Mail shall be deposited in a United States Post Office mail box first class postage prepaid addressed as shown by the respective addresses following the signature block for each of the parties hereto. Notices so posted shall be deemed delivered on the second day following said posting. Changes in these addresses shall be given in writing by the method specified herein.

20. SUBJECT TO BOND RESOLUTION: This Second Amended Contract and the relationship between Contractors and Stockton East, and the respective obligations and privileges of each of the parties shall, in all respects, be subject to and bound by the Bond Resolution. In the event of any conflict between the Bond Resolution and this Second Amended Contract the Bond Resolution shall prevail.

21. SPECIFIC PERFORMANCE: By reason of the specialized nature of the water service to be rendered, and for the further reason that the extent of any damage caused to any party by another by reason of any breach of this Contract may be extremely difficult to determine, it is agreed by the parties hereto that an action for damages is an inadequate remedy for any breach, and that specific performance, without precluding any other remedy available in equity or at law, will be necessary to furnish any party hereto with an adequate remedy for the breach by any other party hereto of any covenant or obligation for the benefit of the aggrieved party.

22. SEVERABILITY: If any term, provision, covenant, or condition of this Second Amended Contract is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remainder of the provisions shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

23. ENTIRE AGREEMENT: This instrument constitutes the sole and only agreement of the parties hereto relating to the rights and obligations granted and assumed herein. Any prior agreements, promises, negotiations, or representations not expressly set forth in this Second Amended Contract are of no force or effect, except as set forth in paragraph 2B of this Second Amended Contract.

24. REMEDIES NOT EXCLUSIVE: Any remedy granted to a party by this Second Amended Contract is not exclusive and any party may elect any remedy granted by this Second Amended Contract, or otherwise, at law, by statute, or in equity, or any combination thereof.

25. WAIVER: No waiver of any default shall constitute a waiver of any other breach or default, whether of the same or any other term, covenant, or condition. No waiver, benefit, privilege, or service voluntarily given or performed by either party shall give the other any contractual right by custom, estoppel, or otherwise. The subsequent acceptance of any payment pursuant to this Second Amended Contract shall not constitute a waiver of any preceding default by any party other than default in the payment of the particular payment so accepted, regardless of a party's knowledge of the preceding breach at the time of accepting the payment.

26. TITLES: The table of contents of this Second Amended Contract and the captions of the various articles and paragraphs of this Second Amended Contract are for convenience and ease of reference only and do not define,

limit, augment, or describe the scope, content, or intent of this Contract or of any part or parts of this Second Amended Contract.

27. GENDER, NUMBER: The neuter gender includes the feminine and masculine, the masculine includes the feminine and neuter, and the feminine includes the masculine and neuter, and each includes corporation, partnership, or other legal entity when the context so requires. The singular number includes the plural and the plural the singular whenever the context so requires.

28. AMENDMENT: This Second Amended Contract may only be amended by agreement of all the parties.

29. CONTROVERSIES: No dispute or controversy between any two or more of the parties hereto shall affect the rights of any party or parties not involved in such dispute or controversy.

30. INTEREST RECEIVED ON RESERVE FUNDS: All interest income received by Stockton East by virtue of the investment of funds on hand in any reserve fund or account to the extent any such fund is funded out of payments made pursuant to this Second Amended Contract, shall be added to the respective reserve fund generating such interest and shall be expended for the purposes of such reserve fund.

31. MODIFICATION OF BOND RESOLUTION: There shall be no modification of the Bond Resolution nor the adoption of a supplemental or additional resolution which affects the obligations of any Contractor or increases or changes their respective payment obligations without the prior written consent of each Contractor.

32. SUBJECT TO UNITED STATES BUREAU OF RECLAMATION CONTRACTS: It is understood that this Second Amended Contract and the rights and obligations of the parties hereunder are subject to the terms of the New Hogan Contracts and the New Melones Contract and by execution hereof each of the Contractors agrees to be bound by the provisions of said contracts, including, but not limited to, the provisions of Article 32 of the contract entered into under date of August 25, 1970 between the United States of America and the Stockton and East San Joaquin Water Conservation District (now Stockton East) and the Calaveras County Water District, and Article 17 of the New Melones Contract and pursuant to the provisions of subdivision (g) of said Article 32 and of subdivision (7) of said Article 17, the provisions of subdivision (a) through (g) of said Article 32 and of said Article 17 are hereinafter set forth:

EQUAL OPPORTUNITY

32. During the performance of this Contract, the Districts agree as follows:

(a) The Districts will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Districts will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, ~~color, religion, sex, or national origin. Such action~~ shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Districts agree to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this Equal Opportunity clause.

(b) The Districts will, in all solicitations or advertisements for employees placed by or on behalf of the Districts, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(c) The Districts will send to each labor union or representative of workers with which they have a collective bargaining agreement or other Contract or understanding, a notice, to be provided by the agency Contracting Officer, advising the labor union or workers' representative of the Districts' commitments under this Equal Opportunity clause, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(d) The Districts will comply with all provisions of Executive order No. 11246 of September 24, 1965, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(e) The Districts will furnish all information and reports required by said Executive Order and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to their books, records, and accounts by the contracting agency and the Secretary of Labor for purpose of investigation to ascertain compliance with such rules, regulations and orders.

(f) In the event of the Districts' noncompliance with the Equal Opportunity clauses of this Contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended in whole or in part, and the District declared ineligible for further Government contracts in accordance with procedures authorized in said Executive Order, and such other sanctions may be imposed and remedies invoked as provided in said Executive Order, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(g) The Districts will include the provisions of subdivisions (a) through (g) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of said Executive Order so that such provisions will be binding upon each subcontractor or vendor. The Districts will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event the Districts become involved in, or are threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the Districts may request the United States to enter into such litigation to protect the interests of the United States.

EQUAL OPPORTUNITY

17. During the performance of this Contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicious places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without discrimination because of race, color, religion, sex, or national origin.

(3) The Contractor will send to each labor union or representative of workers, with which it has a collective bargaining agreement or other Contract or understanding, a notice, to be provided by the Contracting Officer, advising the said labor union or workers' representative of the Contractor's commitments under Section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The Contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The Contractor will furnish all information and reports required by said amended Executive Order and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the Contracting Officer and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended, in whole or in part, and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in said amended Executive Order, and such other sanctions may be imposed and remedies invoked as provided in said Executive Order, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The Contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of said amended Executive Order, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will

take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

~~Stockton East covenants and agrees to perform all of~~ its obligations under the provisions of said Article 32 and of said Article 17.

33. CONDUCT OF PUBLIC HEARINGS: Whenever Stockton East is required by this Second Amended Contract to hold a noticed public hearing such noticed public hearing may be consolidated with any other noticed public hearing required by this Second Amended Contract. A notice of a public hearing required by this Second Amended Contract need not set forth in detail the item or items to be considered but will be sufficient if it describes generally the subject matter to be considered at the public hearing.

34. ADJUDICATION OF GROUND WATER BASIN: In the event of a future adjudication of rights to extract water from the ground water basin underlying Stockton East, the parties agree and stipulate among themselves that use of water delivered under this Second Amended Contract shall constitute a reasonable beneficial use of ground water to the extent that such use results in a reduction in ground water extraction below the level of such extraction prior to the initial delivery date. The parties further agree that in the event of an adjudication, the respective positions they assert, whether in judicial proceedings or stipulated settlement, will be in accordance with the provisions of this Paragraph 34.

35. STOCKTON EAST AS CONTRACTOR: In the event that while service is continued hereunder to any Contractor Stockton East undertakes, by purchase, other acquisition, or by contract, the operation of all or any part of the distribution system of any Contractor, then in such capacity, as the operator of a distribution system, Stockton East shall not extend to such a system or the water users of such a system any benefit, right, or preference, not extended to the other Contractors, unless such benefit, right, or preference is also extended to all other Contractors.

36. TEMPORARY USE OF FUNDS: In the event that during any year Stockton East has a shortage of funds to meet

anticipated or unanticipated costs and charges arising under subparagraphs 5A(4) through 5A(8) then Stockton East may, in its discretion, use any funds it may have on hand in the Water Treatment Facilities Reserve Fund for such purposes. In the event that Stockton East does use funds in the Water Treatment Facilities Reserve Fund pursuant to the preceeding sentence, then Stockton East may withdraw from the Surplus Account at the end of the current Year, and at the end of any necessary succeeding Years, sufficient funds to reimburse the Water Treatment Facilities Reserve Fund for the money used pursuant to this Paragraph 36 from the Water Treatment Facilities Reserve Fund.

37. ALLOCATION OF SURPLUS TO WATER FUND: At the time of setting the amount of the annual payments to be made by the Contractors pursuant to Paragraphs 5 and 6, an estimate shall be made of that amount of money which will remain in the Surplus Account at the end of the current Year which will be in excess of the amount required to meet all allocations and payments to Stockton East in the current Year provided for by Paragraphs 8, 9 and 36, and subparagraph 5A(1). The sums to be paid by the Contractors pursuant to Paragraphs 5 and 6 for the coming Year shall be reduced by such amount estimated to be remaining in the Surplus Account. At the end of the current Year, all moneys remaining in the Surplus Account which are in excess of the amounts required to meet all allocations and payments to Stockton East provided for by Paragraphs 8, 9 and 36 and subparagraph 5A(1) for such current Year shall be deposited in the Water Fund and used as therein provided.

38. RESOLUTIONS AND EXECUTION: There are attached hereto the following: as Exhibit "E" a certified copy of a resolution of the Board of Directors of Stockton East authorizing execution of this Second Amended Contract; as Exhibit "F" a certified copy of a resolution of the Board of Directors of Cal-Water authorizing execution of this Second Amended Contract; as Exhibit "G" a certified copy of a resolution of the City Council of City authorizing execution of this Second Amended Contract; as Exhibit "H" a certified copy of a resolution of the Board of Supervisors of the County of San Joaquin acting on behalf of Lincoln authorizing execution of this Second Amended Contract; and as Exhibit "I" a certified copy of a resolution of the Board of Supervisors of San Joaquin County acting on behalf of Colonial authorizing execution of this Second Amended Contract. The parties shall execute ten originals of this Second Amended Contract.

39. SUBJECT TO OPINION: Notwithstanding any other provision of this Second Amended Contract, it shall not become effective until there has been obtained, from Messrs. Orrick, Herrington & Sutcliffe, the bond counsel who issued the original opinion for the bonds issued pursuant to the Bond Resolution, an opinion stating that any and all requirements of the Bond Resolution, the bonds issued pursuant thereto, and the laws authorizing and governing the issuance of such bonds, with respect to execution of this Second Amended Contract have been met.

40. SUBJECT TO REMOVAL OF SAN MARCOS DECISION STRICTURES: Notwithstanding any other provision of this Second Amended Contract, it shall not become effective until each of the Contractors, upon advice of their respective attorneys, agrees in writing that the strictures imposed upon the payment by public agencies of certain capital costs, by the California Supreme Court in the case of San Marcos Water District v. San Marcos Unified School District (1986) 42 Cal. 3d 154, have been lifted either by remedial legislation or further judicial decision.

Executed on the day and year first above written at Stockton, California.

STOCKTON EAST WATER DISTRICT
a political subdivision of the
State of California

By: ROGER M. HUCKINS, PRESIDENT

ATTEST:

EDWARD M. STEFFANI
SECRETARY

APPROVED AS TO FORM:

JOHN W. STOVALL
GENERAL COUNSEL

Address for Notice to
Stockton East:
Post Office Box 5157
Stockton, California 95205

CALIFORNIA WATER SERVICE
COMPANY
a California Corporation

By _____
C. H. STUMPF, PRESIDENT

ATTEST:

APPROVED AS TO FORM:
McCutchen, Doyle, Brown
& Enersen

LESTER SAXE
SECRETARY

A. CRAWFORD GREENE
ATTORNEYS

Address for Notice to Cal-Water:
Post Office Box 1150
San Jose, California 95108

CITY OF STOCKTON, a municipal corporation of the State of California

By _____
BARBARA FASS, MAYOR

APPROVED AS TO FORM:

ATTEST:

FRANCES HONG
CITY CLERK

ROBERT THOMAS HARRIS
CITY ATTORNEY

Address for Notice to City:
c/o City Clerk, City Hall
Stockton, California 95202

LINCOLN VILLAGE MAINTENANCE DISTRICT, a political subdivision
of the State of California
governed by the Board of Supervisors of San Joaquin County

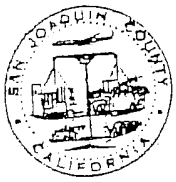
By _____
GEORGE BARBER
CHAIRMAN, Board of Supervisors
County of San Joaquin

State of California

APPROVED AS TO FORM:

ATTEST:

JORETTA J. HAYDE
CLERK OF THE Board
of Supervisors of the
County of San Joaquin,
State of California



By: _____
~~DEPUTY~~ CLERK

_____
JOHN CHEADLE
COUNTY COUNSEL

Address for Notice to Lincoln:
c/o Board of Supervisors
Courthouse
222 E. Weber Avenue
Stockton, California 95202

COLONIAL HEIGHTS MAINTENANCE DISTRICT, a political subdivision of the State of California governed by the Board of Supervisors of San Joaquin County

By _____
GEORGE BARBER, CHAIRMAN
Board of Supervisors
County of San Joaquin
State of California

APPROVED AS TO FORM:

ATTEST:

JORETTA J. HAYDE
CLERK OF THE Board
of Supervisors of the
County of San Joaquin,
State of California

By: _____

JOHN CHEADLE
COUNTY COUNSEL

~~DEPUTY~~ CLERK

Address for Notice to Colonial:
c/o Board of Supervisors
Courthouse
222 E. Weber Avenue
Stockton, California 95202

Exhibit "A"

AMORTIZATION SCHEDULE

Year	Payments: Interest	Payments: Principal (1,000s)	Total	Bond Years	Cumulativ Bond Year
1975	(sale)	-	-	-	-
1976	$1,386,000	-	$1,386,000	-	-
1977	1,386,000	-	1,386,000	-	-
1978	1,386,000	-	1,386,000	-	-
1979	1,386,000	$ 250	1,636,000	1,000	1,000
1980	1,368,500	275	1,643,500	1,375	2,375
1981	1,349,250	300	1,649,250	1,800	4,175
1982	1,328,250	325	1,653,250	2,275	6,450
1983	1,305,500	350	1,655,500	2,800	9,250
1984	1,281,000	375	1,656,000	3,375	12,625
1985	1,254,750	400	1,654,750	4,000	16,625
1986	1,226,750	425	1,651,750	4,675	21,300
1987	1,197,000	450	1,647,000	5,400	26,700
1988	1,165,500	475	1,640,500	6,175	32,875
1989	1,132,250	500	1,632,250	7,000	39,875
1990	1,097,250	550	1,647,250	8,250	48,128
1991	1,058,750	600	1,658,750	9,600	57,725
1992	1,016,750	650	1,666,750	11,050	68,775
1993	971,250	700	1,671,250	12,600	81,375
1994	992,250	750	1,672,250	14,250	95,625
1995	869,750	800	1,669,750	16,000	111,625
1996	813,750	850	1,663,750	17,850	129,475
1997	754,250	900	1,654,250	19,800	149,275
1998	691,250	950	1,641,250	21,850	171,125
1999	624,750	1,025	1,649,750	24,600	195,725
2000	553,000	1,100	1,653,000	27,500	223,225
2001	476,000	1,175	1,651,000	30,550	253,775
2002	393,750	1,250	1,643,750	33,750	287,525
2003	306,250	1,350	1,656,250	37,800	325,325
2004	211,750	1,450	1,661,750	42,050	367,375
2005	110,250	1,575	1,685,250	47,250	414,625
		/ 15,125,000/ term maturity			

414,625

$19,800,000 27 yr. average: $1,654,287

Average life: 20.94 years.

Exhibit "A"

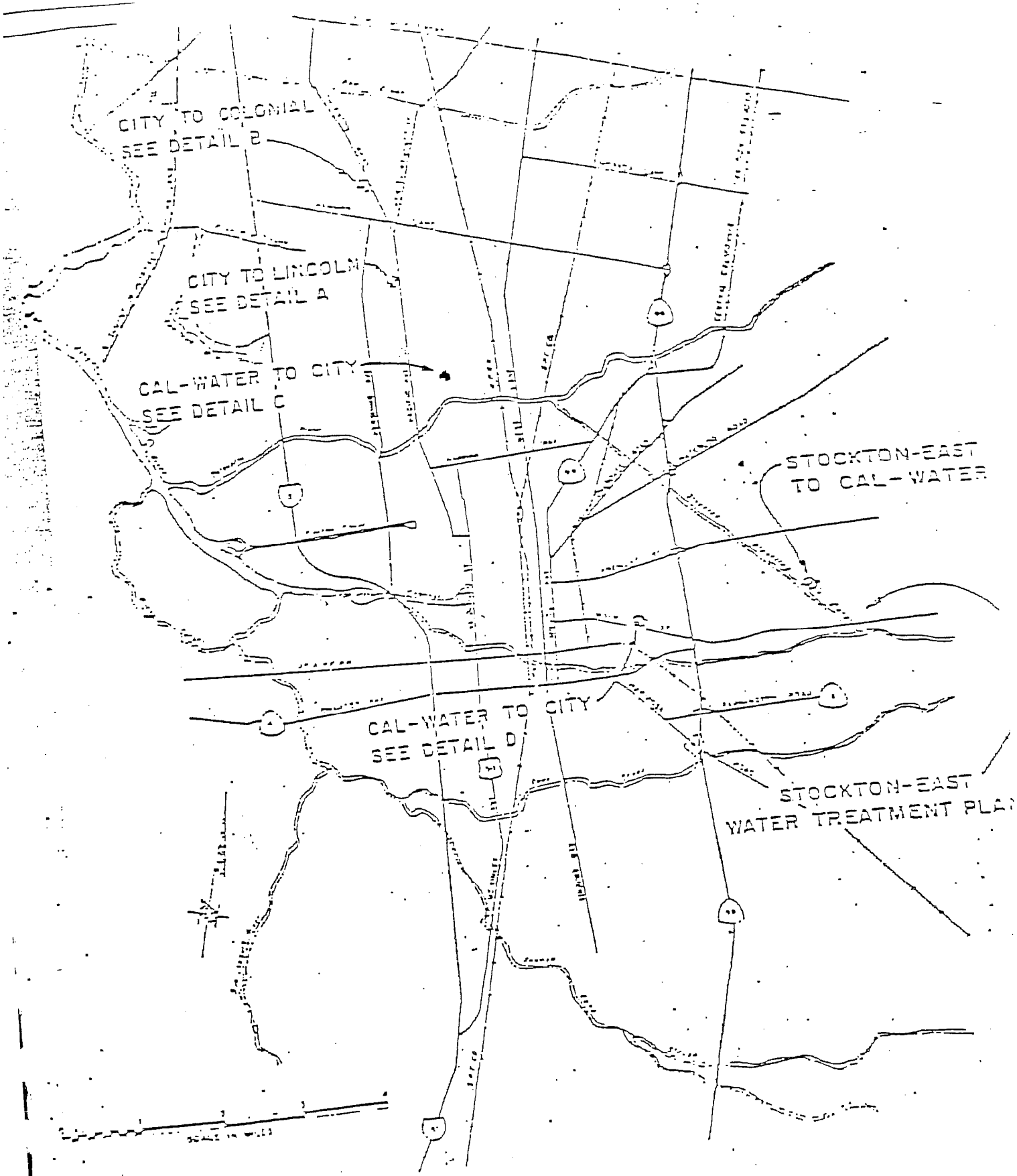
$15,125,000 dated 2005; minimum mandatory calls starting in 1991 as per schedule.
Dated 4/1/75.

Call premiums: Premium	Redemption Year
2-1/2%	1991
2-1/4	1992
2	1993
1-3/4	1994
1-1/2	1995
1-1/4	1996
1	1997
3/4	1998-1999
1/2	2000-2001
1/4	2002-2004
0	2005

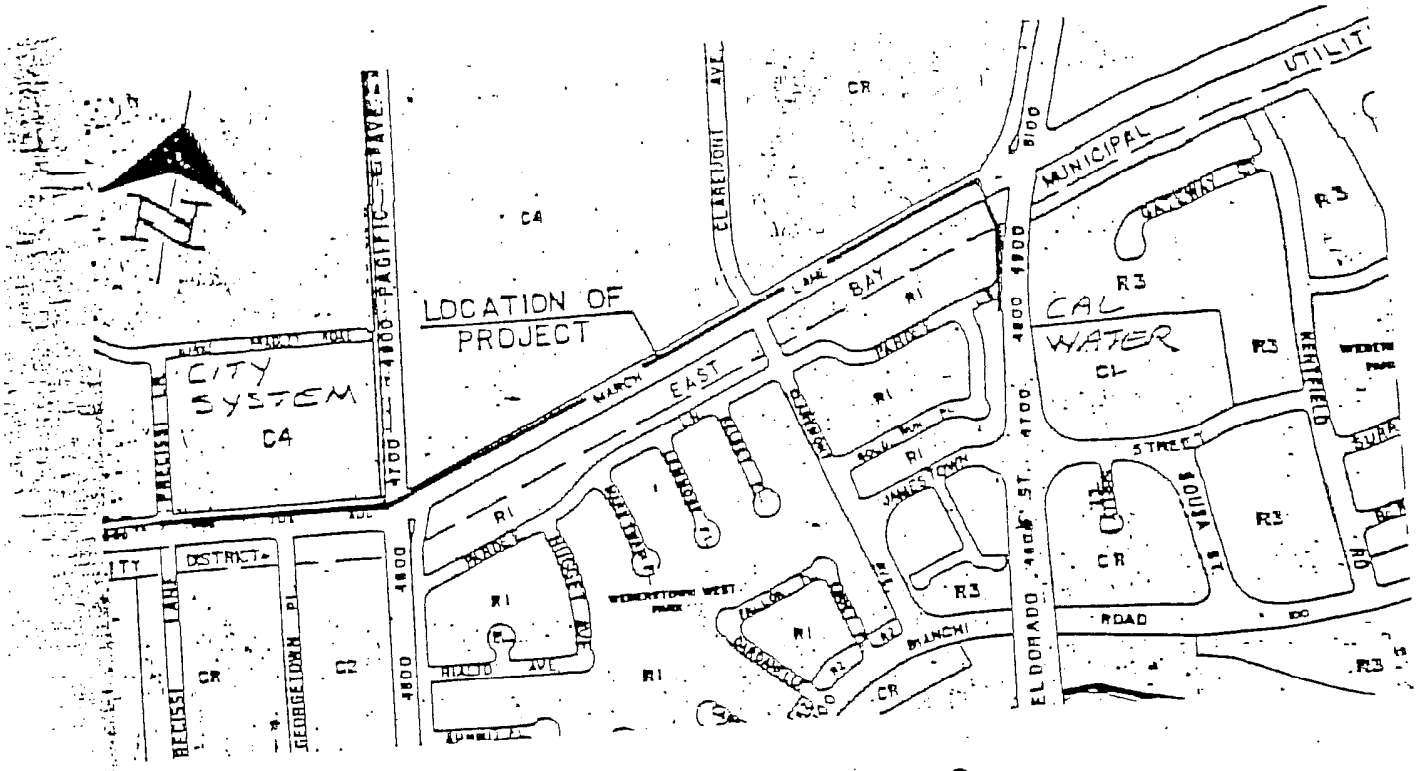
Paying Agent:

Bank of America, National Trust and Savings Association

The foregoing schedule is an example only based on interest at 7%.

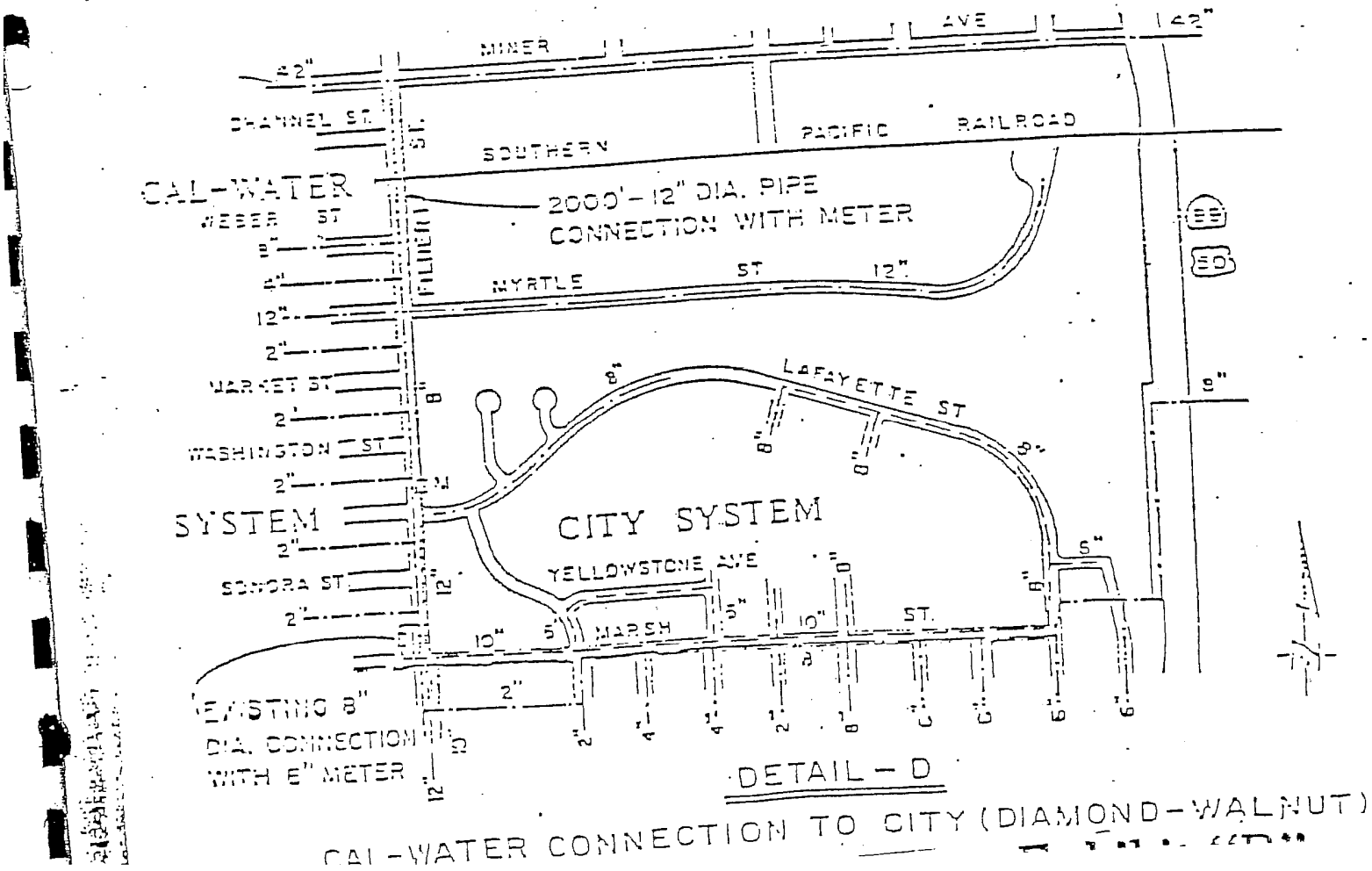


WATER DELIVERY POINTS



DETAIL - C

CAL-WATER CONNECTION TO CITY (NORTH)



DETAIL - D

CAL-WATER CONNECTION TO CITY (DIAMOND-WALNUT)

EXHIBIT C

WATER TREATMENT FACILITIES ADVANCES

1.	Feasibility Study of Master Water Plan Recommendations	$ 24,510.01
2.	Financial Consultant's Services	24,612.72
3.	Design Engineering, Pipeline	46,212.05
4.	Surveys, Pipeline and Treatment Plant	31,718.43
5.	Soil Studies, Pipeline and Treatment Plant	17,358.29
6.	Design Engineering, Treatment Plant	105,660.32
7.	Architectural Design Services	14,707.38
8.	Contingency Water Plan	13,974.00
9.	P.L. 984 Loan Application	40,893.60
10.	Environmental Impact Report	11,521.13
11.	Legal Services	35,960.00
12.	Bond Election	25,817.21
13.	Lands, Easements and Rights of Way	209,094.22
	TOTAL	$602,039.36

The foregoing items were expended prior to November 30, 1974. There shall be added to said sum of $602,039.36 an additional sum in the amount of $12,034.10 for items similar to those enumerated above expended between December 1, 1974 and the date that funds became available from the sale of the Water Treatment Facilities Bonds.

EXHIBIT D

MAJOR REPAIR AND REPLACEMENT SCHEDULE

The following schedule of major repairs and replacements is the schedule mentioned in subparagraph 7B of the Contract.

Estimated Costs of Major Repairs and Replacements During Five-Year Periods Shown (Based on 1974 Costs in $1000)

Item	0-5	5-10	10-15	15-20	20-25	25-30	30-35
Chemical Feeders	5	15	25	25	25	25	25
Electrical and Instrumentation	10	40	60	60	60	60	60
Natural Gas Engines	5	20	5	20	5	20	5
Chemical Mixers	3	6	6	6	6	6	6
Pumps and Motors	30	40	50	50	50	50	50
Chlorine Equipment	5	10	10	10	10	10	10
Air Conditioning	–	–	8	–	–	8	–
Flocculators	5	10	14	14	14	14	14
Valves	4	8	8	8	8	8	8
Miscellaneous	5	11	11	11	11	12	12
Sub-total	72	160	197	204	189	213	190

Total = $1,225,000.00

Cost Per Year = $ 35,000.00

EA Stellman
Stockton-East Water Dist
P O B x 5157
Stockton CA 95205

Before the Board of Supervisors

County of San Joaquin, State of California

B- 87- 1419

SEP 24 1987
STOCKTON-EAST WATER DISTRICT

MOTION: SOUSA/CARTER

SECOND AMENDED CONTRACT FOR SALE OF TREATED WATER

IT IS HEREBY RESOLVED that the Board of Supervisors approve the Second Amended Contract between Stockton East Water District, California Water Service Company, City of Stockton, and Lincoln Village and Colonial Heights Maintenance Districts and authorize the Chairman of the Board to execute the Contract.

I HEREBY CERTIFY that the above order was passed and adopted on SEP 1 5 1987 by the following vote of the Board of Supervisors, to wit

AYES: WILHOIT, COSTA, SOUSA, CARTER, BARBER

NOES: NONE

ABSENT: NONE

ABSTAIN:

Copies to:

JORETTA J. HAYDE
Clerk of the Board of Supervisors
County of San Joaquin
State of California

RESOLUTION NO. 87-88-10

RESOLUTION OF THE BOARD OF DIRECTORS OF THE STOCKTON-EAST WATER DISTRICT APPROVING AND AUTHORIZING EXECUTION OF SECOND AMENDED CONTRACT WITH CITY OF STOCKTON, LINCOLN VILLAGE MAINTENANCE DISTRICT, COLONIAL HEIGHTS MAINTENANCE DISTRICT, AND CALIFORNIA WATER SERVICE COMPANY.

IT IS HEREBY RESOLVED that the Second Amended Contract between the Stockton-East Water District, the California Water Service Company, the City of Stockton, the Lincoln Village Maintenance District, and the Colonial Heights Maintenance District providing for the sale of treated water, for a term extending until April 1, 2035, be, and it hereby is, approved.

BE IT FURTHER RESOLVED that the President and Secretary of this Board of Directors be, and they hereby are, authorized and directed to execute said Second Amended Contract on behalf of the STOCKTON-EAST WATER DISTRICT.

PASSED AND ADOPTED this 15th day of September, 1987, by the following vote of the Board of Directors, to wit:

AYES: BOZZANO, DONDERO, HUCKINS, LAVEN, and SOLARI

NOES: TONE

ABSENT: MACNEAR

Roger M. Huckins

ROGER M. HUCKINS, President
Board of Directors
Stockton-East Water District

ATTEST:

EDWARD M. STEFFANI, Secretary
Board of Directors
Stockton-East Water District

I hereby certify that I am the Secretary of the Stockton-East Water District and that the foregoing is a true and correct copy of a resolution which was duly adopted by the vote of the Board of Directors of the Stockton-East Water District shown above on September 15th, 1987.

Dated at Stockton, California, on the 25th day of September, 1987.

EDWARD M. STEFFANI, Secretary
Stockton-East Water District

Exhibit "E"
Sheet 1 of 2

1201-304-001

Resolution No. 87-0508

Exhibit "G"

STOCKTON CITY COUNCIL

RESOLUTION AUTHORIZING THE EXECUTION OF A SECOND AMENDED CONTRACT FOR THE SALE OF TREATED WATER BETWEEN THE CITY OF STOCKTON, STOCKTON EAST WATER DISTRICT, CALIFORNIA WATER SERVICE COMPANY, LINCOLN VILLAGE MAINTENANCE DISTRICT AND COLONIAL HEIGHTS MAINTENANCE DISTRICT

WHEREAS, in order to meet the water needs of the parties hereto, the original contract was made February 11, 1975, and amended May 31, 1977, allocating certain water entitlements among the parties; and

WHEREAS, such agreements were executed in order to protect the groundwater basin in and around the City of Stockton from overdraft and saline intrusion; and

WHEREAS, in order to further those considerations enunciated in the original contracts, it has become necessary to reapportion certain surface water entitlements, and to make provisions for the expansion of certain water conveyance, storage and treatment facilities; now therefore

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF STOCKTON, AS FOLLOWS:

That the Mayor is hereby authorized to execute on behalf of the City of Stockton the Second Amended Four Party Contract attached hereto as Exhibit "A" and by reference made a part hereof.

INTRODUCED SEPTEMBER 14, 1987.

PASSED, APPROVED and ADOPTED this 21st day of September, 1987.

Stockton

Date: Sept. 22, 1987

Frances Hong
City Clerk of the City of Stockton

By Peggy E. Jackson
Deputy

Before the Board of Supervisors

County of San Joaquin, State of California

B- 87-1419

MOTION: SOUSA/CARTER

SECOND AMENDED CONTRACT FOR SALE OF TREATED WATER

IT IS HEREBY RESOLVED that the Board of Supervisors approve the Second Amended Contract between Stockton East Water District, California Water Service Company, City of Stockton, and Lincoln Village and Colonial Heights Maintenance Districts and authorize the Chairman of the Board to execute the Contract.

I HEREBY CERTIFY that the above order was passed and adopted on September 15, 1987 by the following vote of the Board of Supervisors, to wit:

AYES: WILHOIT, COSTA, SOUSA, CARTER, BARBER

NOES: NONE

ABSENT: NONE

ABSTAIN: NONE

JORETTA J. HAYDE
Clerk of the Board of Supervisors
County of San Joaquin
State of California

Before the Board of Supervisors

County of San Joaquin, State of California

B- 87-1419

MOTION: SOUSA/CARTER

SECOND AMENDED CONTRACT FOR SALE OF TREATED WATER

IT IS HEREBY RESOLVED that the Board of Supervisors approve the Second Amended Contract between Stockton East Water District, California Water Service Company, City of Stockton, and Lincoln Village and Colonial Heights Maintenance Districts and authorize the Chairman of the Board to execute the Contract.

I HEREBY CERTIFY that the above order was passed and adopted on September 15, 1987 by the following vote of the Board of Supervisors, to wit:

AYES: WILHOIT, COSTA, SOUSA, CARTER, BARBER

NOES: NONE

ABSENT: NONE

ABSTAIN: NONE

JORETTA J. HAYDE
Clerk of the Board of Supervisors
County of San Joaquin
State of California

EXHIBIT A

RECEIVED
MAY - 1 1997
CITY CLERK
CITY OF STOCKTON

WATER TRANSFER AGREEMENT BY AND BETWEEN THE OAKDALE IRRIGATION DISTRICT, SOUTH SAN JOAQUIN IRRIGATION DISTRICT AND STOCKTON EAST WATER DISTRICT, et al.

This Agreement is entered into this first day of April, 1997, between and among the Oakdale Irrigation District ("OID"), the South San Joaquin Irrigation District ("SSJID"), sometimes hereinafter collectively referred to as "Joint Districts;" and Stockton East Water District ("SEWD"), City of Stockton, Lincoln Village Maintenance District, and the Colonial Heights Maintenance District , herein collectively referred to as "Purchasers"; and Central San Joaquin Water Conservation District ("Central"). Joint Districts, Purchasers and Central are collectively referred to hereafter as "Parties".

RECITALS

WHEREAS, Joint Districts, are operating under and by virtue of Division 11 of the California Water Code; and

WHEREAS, SEWD is operating under and by virtue of Chapter 819 of the Statutes of 1971, as amended; and

WHEREAS, the Purchasers desire to purchase water from Joint Districts for M & I and irrigation uses; and

WHEREAS, SEWD intends to deliver the water provided hereunder utilizing the Goodwin Dam Intake structure and other facilities owned and/or financed by the Purchasers; and

WHEREAS, Joint Districts are the owners of certain water rights to the waters of the Stanislaus River; and

WHEREAS, the purpose of this Agreement is to facilitate a long term transfer of water conserved or water otherwise developed by Joint Districts; and

WHEREAS, Joint Districts are currently subject to changing land use patterns for both irrigable and nonirrigable lands, in that irrigated and nonirrigated agricultural lands are being converted to urbanized uses which is anticipated to result in a temporary decline in use of water for agricultural purposes and the long-term demand growing within the area for use of water for urban purposes; and

WHEREAS, due to such changes and due to ongoing conservation practices and improvements in facilities by the Joint Districts, the water to be transferred to the Purchasers by this Agreement, hereinafter referred to as the "Agreement-

PERMANENT

Water," is surplus to the current needs of the landowners and water users of the Joint Districts in accordance with California Water Code section 22259; and

WHEREAS, the quantity and quality of ground water within lands underlying the Purchasers is threatened from over-drafting of ground water in areas of San Joaquin County, including some areas within SEWD; and

WHEREAS, Purchasers intend by this Agreement to (1) obtain additional surface water for their use; (2) cause a reduction in the extraction of ground water; and (3) assist their landowners, water users, and water purveyors in obtaining a safe and reliable water supply; and

WHEREAS, by providing Agreement-Water to the Purchasers pursuant to this Agreement, the Joint Districts intend to (1) keep agriculture viable within their districts and benefit Joint Districts' water users and landowners; (2) safeguard the Joint Districts' ground water and provide for reasonable beneficial uses of available water supplies that may be temporarily available due to land use changes and increased conservation within their districts; (3) continue to maintain and secure these water supplies for the long term benefit of the Joint Districts and the landowners served by them; and (4) provide water determined to be not immediately required for agricultural or beneficial purposes within the Joint Districts to be placed to reasonable beneficial use by the Purchasers.

NOW, THEREFORE, the Parties, on the terms and conditions herein set forth, agree as follows:

AGREEMENT

1. DEFINITIONS: The following definitions shall govern this agreement:

a. "Agreement-Water" is that surface water which is surplus to the current needs of the landowners and water users of the Joint Districts in accordance with California Water Code Section 22259, which is to be transferred to the Purchasers by this Agreement.

b. "Delivery" means that the Agreement-Water is made available to Purchasers at the SEWD Goodwin Tunnel Intake, whether or not Purchasers take and/or store and/or can make use of such water. This definition is intended to include the grammatical variations of the term "delivery" including "deliver" and "delivered", where such term references water.

2. DESIGNATION OF SEWD: The Purchasers designate SEWD to carry out the obligations of Purchasers hereunder, including paying for, receiving, treating, transporting and distributing Agreement-Water purchased hereunder, and paying Purchasers' share of costs as provided herein. In the event that SEWD should fail to comply with any obligation hereunder, Joint Districts shall notify the other Purchasers at least thirty (30) days before terminating this Agreement and offer them the opportunity to cure.

3. TERM: The term of this agreement shall be ten years from the date on which water is first delivered to Purchasers under this agreement, with an option to renew for an additional ten years, upon conditions mutually agreeable to the Parties. Once all approvals are obtained and water is delivered to Purchasers under this Agreement, Purchasers may terminate this Agreement upon two years prior notice after the first five years.

4. AGREEMENT TO TRANSFER: The Joint Districts will annually sell and deliver Agreement-Water for reasonable and beneficial uses in the quantities described and subject to the terms and conditions of this Agreement. Agreement-Water will be used within the boundaries of Purchasers and Central, except that Purchasers may sell the water for use outside their boundaries according to the provisions of Paragraph 25.

5. QUANTITY: a) Joint Districts agree to sell and deliver to Purchasers 30,000 acre-feet of water in years in which the United States Bureau of Reclamation's forecast of inflow to New Melones Reservoir ("forecast") equals 500,000 acre-feet or more; 12,500 acre-feet if the forecast is between 450,000 and 499,000 acre-feet, and 8,000 acre-feet if the forecast is less than 450,000 acre-feet.

b) The amount of Agreement-Water is based on the water supply forecast in April of each year. The Agreement-Water shall be delivered over a water year commencing on October 1 and terminating on September 30 of succeeding year.

6. DELIVERY OBLIGATIONS OF OID AND SSJID: It is understood that OID and SSJID shall each contribute one-half of the Agreement-Water to be transferred to Purchasers pursuant to this Agreement, and neither shall be responsible for the other district's inability to deliver its share of Agreement-Water in any year. If a shortage occurs under Paragraph 16 which is such that one of the Districts is no longer able to meet its obligations in this Agreement for the duration of the term hereof, the other District may, but is not obliged to, deliver water to make up the shortage. SEWD's payment obligation shall not be affected if one of the Joint Districts shall deliver Agreement-Water on behalf of the other, and Joint Districts shall determine the division of payments between themselves by separate agreement.

7. PURCHASE PRICE: In years in which the forecast equals or exceeds 450,000 acre-feet, SEWD shall pay Joint Districts $55 per acre-foot of water delivered by Joint Districts, whether Purchasers take the water or not. If Joint Districts provide reduced deliveries pursuant to one or more of the provisions this Agreement, SEWD shall pay only for water actually delivered. In years in which the forecast is less than 450,000 acre-feet, and only 8,000 acre-feet are delivered, Purchasers shall pay $90 per acre-foot.

8. ANNUAL CHANGES TO PURCHASE PRICE: a) The purchase price shall be adjusted based on changes to the Consumer Price Index as shown as the

urban wage earners and clerical workers, U.S. City average (CPI-W)("Index")for the twelve month period concluding with the August CPI index of each preceding year. Effective October 1 of each year, following the initial delivery of water, the base purchase price shall be modified, whether an increase or decrease in price, based on the same percentage that the Index as published in August of such year has changed, whether higher or lower, as compared to the Index published in August of the preceding year, provided, however, that the increase shall not exceed 5 per cent in any year and provided further that the purchase price shall at no time be based on a per acre-foot price of less than $55 per acre-foot for water sold to Purchasers or $15 for water sold to Central.

b) If the Index is discontinued or revised during the term, such other index or computation with which it is replaced shall be used in order to obtain substantially the same result as would be obtained if the Index had not been discontinued or revised, and in the absence of such a comparable replacement index, the Parties shall mutually determine a comparable replacement index.

9. PAYMENTS: a) Joint Districts shall bill SEWD and Central monthly for the water delivered in the preceding month. SEWD and Central shall pay within thirty days of receipt of the invoice.

b) All payments to be made by SEWD pursuant to this Agreement will be made one-half to SSJID and one-half to OID. The respective payments will be made to:

South San Joaquin Irrigation District
11011 E. Highway 20
Manteca, California 95336

Oakdale Irrigation District
1205 East "F" Street
Oakdale, California 95361

10. INTEREST: SEWD shall pay the Joint Districts interest at the annual interest rate of 10% on any charges that remain unpaid thirty (30) days beyond the due date.

11. BILLING "YEAR" DEFINED: For billing and forecasting purposes, each new year under this Agreement shall run concurrently with the "water year," defined as October 1 through September 30 of the following calendar year.

12. WATER QUALITY: The Joint Districts make no warranty or representations as to the quality or fitness for use of Agreement-Water sold and delivered to SEWD. SEWD shall be responsible for all necessary measures at its own expense for the testing, treatment, and other steps required for the intended uses of the Agreement-Water by the Purchasers.

13. WATER MEASUREMENT: The Agreement-Water will be measured by Joint Districts pursuant to the provisions of paragraphs 6.1-6.4, inclusive, of the

March 23, 1990, agreement by and between the County of San Joaquin, City of Stockton, OID, SSJID, Goodwin Tunnel Financing Authority, and SEWD (hereinafter, the "Goodwin Agreement").

14. LIMITING CONDITIONS: The Joint Districts' obligations hereunder and the Delivery Provisions will, at all times, be subject and subordinate to the following conditions: (1) the terms and conditions of their water rights; (2) the 1988 Agreement and Stipulation (the "1988 Agreement") with the United States Bureau of Reclamation (the "Bureau"), as it now exists and as modified from time to time; (3) the Tulloch Enhancement Agreement with PG&E, as it now exists and as modified from time to time; (4) the Goodwin Agreement, as it now exists and as modified from time to time; (5) the terms and conditions of Federal Energy Regulatory Commission licenses, as they now exist, and as they may be amended and/or renewed upon relicensing including, but not limited to, those held for Tulloch and Goodwin Dams; (6) the rights of landowners, within the boundaries of OID or SSJID as of the initial delivery of Agreement-Water hereunder, to the beneficial use of their respective district's water; (7) applicable federal and state laws now in existence and as modified from time to time, affecting the Joint Districts' rights or obligations, and (8) the rights of the cities of Lathrop, Manteca, Escalon and Tracy pursuant to Water Supply Development Agreement with SSJID. The conditions described in 1-8, inclusive, above, are collectively referred to as the "Limiting Conditions." Nothing in Exhibit A or in this Agreement shall be construed so as to contradict, conflict with or otherwise be contrary to the provisions of any of the Limiting Conditions; and in the event of any conflict between any of the Limiting Conditions and this Agreement, the Limiting Condition(s) shall control, and Joint Districts shall not be deemed to be in violation of this Agreement by any modifications of the agreement, including reduced supply for SEWD, required to ensure compliance with any of the Limiting Conditions.

15. AGREEMENT-WATER DELIVERY: Joint Districts will deliver Agreement-Water to Purchasers in the amounts listed in Paragraph 5 in each and every year of this Agreement, subject to the changes, limitations and other provisions in this Agreement. Joint Districts will deliver Agreement-Water in accordance with the schedule in Exhibit A to this Agreement ("Delivery Schedule"), provided that the Parties may jointly agree to variations on the Delivery Schedule. Purchasers may presume that water is available at the Goodwin Tunnel Intake in the amounts listed in Paragraph 5 based upon the April 1 forecast and according to the Delivery Schedule, and may divert such amounts at the Goodwin Tunnel Intake, unless Joint Districts notify them of a reduction pursuant to one or more of the provisions of this Agreement. Joint Districts shall give Purchasers at least 60 days notice prior to imposing a reduction.

16. WATER SUPPLY REDUCTIONS: Water supply to be delivered to SEWD under this Agreement may be reduced by Joint Districts for any of the following reasons: the Limiting Conditions; failure of facilities; intervening acts, including litigation and stream adjudication brought by third parties, or actions of any state or federal agency exercising jurisdiction or claiming an interest and/or right to reduce and/or modify operations and/or quantities of water otherwise available to the Joint

Districts; diversions which may hereafter be authorized for others from the North, Middle or South Forks of the Stanislaus River, and any action, legislation, ruling or determination adverse to the Joint Districts affecting the Agreement and beyond the reasonable control of the Joint Districts. Joint Districts shall make good faith efforts to oppose such reductions, but Purchasers agree that Joint Districts shall not be liable for reductions of supply in this Agreement due to such causes. In the event of a reduction of supply caused by factors listed in this Paragraph, Purchasers shall pay only for water actually delivered.

17. DIVERSION COSTS: In accordance with the Goodwin Agreement, all permitting, construction, reconstruction, and maintenance costs for facilities necessary or used to divert Agreement-Water from the Goodwin Pool and those which are necessary to accomplish the measurement of Agreement-Water shall be borne solely by SEWD. SEWD is solely responsible for all costs associated with treatment, diversion headworks, pumping facilities, etc., to divert, convey, transport, treat, and deliver Agreement-Water to the Purchasers.

18. WATER RIGHTS: If approval of the transfer from Joint Districts to Purchasers is not sought from the State Water Resources Control Board, Joint Districts shall inform Purchasers of any approvals which Joint Districts consider necessary and of the process they will follow to obtain any necessary approvals, and provide a justification for the process selected or for the conclusion that no approvals are required.

19. ENVIRONMENTAL REVIEW: Joint Districts will be the lead agencies for purposes of the California Environmental Quality Act. Expenses of environmental review and approval will be split equally between the Purchasers and Joint Districts. An Oversight Committee composed of 4 representatives from the Purchasers and 4 representatives from the Joint Districts shall approve in advance and monitor the scope of environmental work and the selection of consultants to perform the work.

20. TERMINATION: The Parties to this agreement shall have the right of termination as set forth in this paragraph.

A. Joint Districts:

(1) If regulatory approvals and final CEQA action are not satisfied by December 31, 1998, either OID or SSJID may, by written notice to the other Parties, cancel this agreement.

(2) Should the State Water Resources Control Board, the United States Bureau of Reclamation, the United States Corps of Engineers, or any other state or federal agency or any state or federal court, excercising jurisdiction over this Agreement and/or the operations of Joint Districts or their water rights, impose any requirements, limitations, operational restrictions, fees, charges, costs, water rights restrictions or operating criteria upon the Joint Districts in whole or in part as a result of the transfer of Agreement-Water under this

Agreement, then Joint Districts may, in their sole and unlimited discretion, determine that compliance with such regulatory action is not in the interest of the Joint Districts, and terminate this Agreement. Written notice shall be provided to the other Parties.

(3) If, in the judgment of either of the Joint Districts, the costs of litigation, the restrictions imposed in the approvals of any regulatory agency, mitigation measures imposed by any agency pursuant to the California Environmental Quality Act, or any relief afforded to plaintiffs in an action brought in State of Federal Court involving this Agreement are too burdensome in relation to the benefits to be received under this Agreement, then either OID or SSJID may terminate this Agreement.

B. Purchasers.

(1) If regulatory approvals and final CEQA action are not satisfied by December 31, 1998, any Purchaser may, by written notice to the other Parties, cancel this agreement.

(2) Should the United States Corps of Engineers, the United States Fish and Wildlife Service, or any other state or federal agency or any other state or federal agency or any state or federal court, exercising jurisdiction over this Agreement and/or Purchasers' operations of the Goodwin Tunnel and related conveyance facilities, impose any requirements, limitations, operational restrictions, fees, charges, costs, or operating criteria upon the Purchasers in whole or in part as a result of the transfer of Agreement-Water under this Agreement, then Purchasers, in their sole and unlimited discretion, may determine that compliance with such regulatory action is not in the interest of the Purchasers, and terminate this Agreement. Written notice shall be provided to the other Parties.

(3) If, in the judgment of any Purchaser, the costs of litigation, regulatory review, compliance with regulatory conditions, CEQA compliance and/or mitigation, or relief afforded to plaintiffs in an action brought in State or Federal Court involving this Agreement are too costly in relation to the benefits to be received, then any Purchaser may terminate this Agreement.

C. Notice. A Party shall give 30 days advance written notice to all other Parties prior to terminating this Agreement. Prior to giving such notice, the Party electing to terminate pursuant to this provision shall have met and conferred with representatives of the other Parties to discuss the concerns.

In the event of termination under this paragraph, the Parties shall thereafter be under no further obligation or responsibility hereunder and will

release each other from further obligations under this Agreement, except for their respective shares of costs incurred prior to the effective date of termination.

21. REGULATORY AND LITIGATION COSTS: Joint Districts will defend their own interests in any litigation or regulatory action challenging the validity of Joint Districts' water rights. The Parties shall each defend their own interests in litigation or regulatory action involving this Agreement, including environmental compliance and transferability of the water. Any attorney fees and/or costs awarded in CEQA litigation to a person or entity not a party to this contract shall be split equally between Joint Districts and Purchasers.

22. CONDITIONS TO DELIVERY OF WATER: It is a condition to the obligations of Joint Districts to deliver water to Purchasers and to the obligation of Purchasers to pay for Agreement-Water that the following conditions be met:

Environmental Compliance. Adoption of a certified EIR pursuant to the requirements of the California Environmental Quality Act.

Other Approvals. The Joint Districts shall obtain such other state and/or federal regulatory approval for this transfer as are agreed upon by the Parties. Joint Districts and Purchasers shall split equally the cost of obtaining any regulatory approvals to which Purchasers have consented.

23. COOPERATION: To the extent reasonably required, each Party to this Agreement shall, in good faith, assist the other in obtaining all such necessary approvals and preparation of required environmental documents. The Parties agree to cooperate and assist each other in good faith in meeting such requirements of regulatory agencies as may be applicable to performance of any terms of the Agreement.

24. RIGHT TO SUSPEND DELIVERIES: In addition to any other remedy available, Joint Districts may suspend deliveries under this Agreement if any of the following shall occur:

Nonpayment. SEWD has failed to make any payment required by this Agreement. If SEWD contests such obligation or payment, it shall pay the amount due under protest to Joint Districts and invoke the procedures of Paragraph 31 as a condition of continued delivery. Prior to terminating for nonpayment by SEWD, Joint Districts shall give notice to all Purchasers and give them 30 days to make the payment.

Breach of Goodwin Agreement. Purchasers, or any of them, are determined by an arbitrator or court to be in breach of any of their obligations, covenants or responsibilities in the Goodwin Agreement.

25. RESALE: Purchasers may resell the water delivered to them under this Agreement. If the resale price exceeds the price paid by Purchasers to Joint Districts under this Agreement, and Purchasers incur actual costs in wheeling water to their buyer through Goodwin Tunnel and related conveyance facilities, Purchasers shall pay to Joint Districts one half the amount by which the resale price net of those actual costs exceeds the purchase price under this Agreement. If the water is delivered to the buyer via releases to the Stanislaus River, Joint Districts shall cooperate in making such releases, and Purchasers shall pay to Joint Districts one half the amount by which the gross resale price exceeds the purchase price under this Agreement.

26. STORAGE IN NEW MELONES: Joint Districts will not object if Purchasers request the United States Bureau of Reclamation to store Agreement-Water for use in subsequent years, provided that : (1) Purchasers use their stored water first in any given year, (2) Joint Districts are not injured, and (3) Purchasers' stored water spills before any water stored by Joint Districts. Should Purchasers obtain a written agreement with the United States to store Agreement-Water, Purchasers and Joint Districts shall mutually agree to any amendments to this Agreement required to confirm the timing of delivery of such stored water. It is agreed that payment for stored water shall be made by Purchasers to Joint Districts at the time of storage, and that election to store water in any given year shall be made on or before May 1 of that year.

27. WAIVER OF RIGHTS: Any waiver, at any time, by any Party of its rights with respect to a breach or default, or any other matter arising in connection with this Agreement, shall not be deemed to be a waiver with respect to any other breach, default or matter.

28. ASSIGNMENT: This Agreement is entered into in reliance on water supplies available to Joint Districts and the need and credit of Purchasers, as well as the desire of the Parties to assist in alleviating water shortage problems in San Joaquin County, and therefore, any attempted assignment of this Agreement in whole or in part without the prior written consent of all Parties hereto is void.

29. NOTICES: All notices that are required, either expressly or by implication, to be given by any Party to the other under this Agreement shall be signed for by OID, SSJID and Purchasers by such officers as they may, from time to time, authorize in writing to so act.

Any notices to Parties required by this Agreement shall be delivered or mailed, United States first-class postage prepaid, addressed as follows:

OAKDALE IRRIGATION DISTRICT
General Manager/Secretary
Oakdale Irrigation District
1205 East "F" Street
Oakdale, CA 95361

SOUTH SAN JOAQUIN IRRIGATION DISTRICT
General Manager/Secretary
South San Joaquin Irrigation District
11011 East Highway 120
Manteca, CA 95336

STOCKTON EAST WATER DISTRICT
General Manager/Secretary
Stockton East Water District
PO Box 5157
Stockton, CA 95207-0157

COUNTY OF SAN JOAQUIN
c/o Clerk, Board of Supervisors
Board of Supervisors
222 East Weber Avenue
Stockton, CA 95202

CITY OF STOCKTON
c/o City Clerk
City Hall
Stockton, CA 95202

CENTRAL SAN JOAQUIN WATER
CONSERVATION DISTRICT
311 East Main Street, Suite 202
Stockton, CA 95202

Notice shall be deemed given (a) two calendar days following mailing via regular or certified mail, return receipt requested, (b) one business day after deposit with any one-day delivery service assuring "next day" delivery, (c) upon actual receipt of notice, or (d) upon transmission, if by facsimile, whichever is earlier. The Parties shall promptly give written notice to each other of any change of address, and mailing or shipment to the addresses stated herein shall be deemed sufficient unless written notification of a change of address has been received.

30. APPROVALS: Where the terms of this Agreement provide for action to be based upon a judgment, approval, review or determination of any Party, such terms are not intended to be and shall never be construed as permitting such opinion, judgment, approval, review, or determination to be arbitrary, capricious or unreasonable.

31. ARBITRATION: In the event of a dispute between the Parties as to any right, alleged right, obligation or alleged obligation under this Agreement, the Parties shall make a good faith effort to resolve the dispute. In the event that a resolution of the dispute cannot be reached despite these efforts, any Party may declare an impasse and its intent to submit the matter to arbitration. Any such arbitration shall be held and conducted before one arbitrator who shall be selected by mutual agreement of the Parties. If agreement is not reached on the selection of an arbitrator within fifteen (15) days after a Party has notified the other Parties of its election to submit an issue to arbitration, then such arbitrator shall be appointed by the presiding judge of the superior court of Stanislaus County upon application of either Party hereto. The award or decision of the arbitrator shall be final and judgment may be entered thereon. The provisions of Title 9 of Part 3 of the California Code of Civil Procedure, including Section 1283.05, and successor statutes, permitting expanded discovery proceedings shall be applicable to all disputes which are arbitrated pursuant to this paragraph.

32. OTHER AGREEMENTS: Nothing contained herein restricts the Joint Districts from providing water services and sales to others as authorized by law which do not unreasonably interfere with Joint Districts' obligation hereunder.

33. ENTIRE AGREEMENT: This Agreement constitutes the entire Agreement between the Joint Districts and Purchasers and supersedes any oral agreement, statement or promise between them relating to the subject matter of the Agreement. Any amendment, including oral modifications, must be reduced to writing and signed by all Parties to be effective.

34. GOODWIN AGREEMENT: This Agreement amends the Goodwin Agreement to the extent necessary to permit the Parties to carry out the terms hereof. Joint Districts specifically agree that the license granted Purchasers by Section 2.1 of the Goodwin Agreement shall be deemed to enable Purchasers to take delivery of water made available by Joint Districts under this Agreement; in addition, the license granted Purchasers by Section 2.1 of the Goodwin Agreement shall be deemed to enable Purchasers to wheel water made available to Central under this Agreement pursuant to written agreement between Purchasers and Central. The Parties do not, however, intend to modify, alter, rescind, change or waive any of the terms and conditions of the Goodwin Agreement with respect to any other water.

35. DELIVERY OF WATER BY SSJID TO CENTRAL: SSJID agrees to make available to Central up to 15,000 acre-feet of Water over and above the amounts delivered to Purchasers pursuant to Paragraph 5, subject to all of the terms and conditions of this Agreement applicable to delivery of water by Joint Districts to Purchasers except to the extent they are inconsistent with the terms and conditions in this paragraph, and to the following additional terms conditions:

A. Conditions to Initial Delivery of Water. The following conditions must be satisfied prior to SSJID making Agreement-Water available to Central:

(1) Central's preparation of an initial plan of the proposed distribution facilities and a map showing the areas within Central which will be served. The initial plan is to be completed within four months of the date of this Agreement.

(2) Acceptance of the initial plan by SSJID's Board of Directors within 30 days of receipt. It is understood that one of SSJID's purposes in proposing to deliver water to Central is to improve groundwater levels within SSJID by reducing the use of groundwater within areas of Central which border on SSJID. SSJID will determine from the initial plan whether the proposed project will adequately serve those portions of Central which either share a common boundary with SSJID or which are adjacent to such areas, and which consist of approximately 6,000 acres.

(3) Central shall deliver to SSJID written evidence of Central's right to take delivery of water whether through the Goodwin Tunnel Facility or through other means acceptable to SSJID within six months of the date of this Agreement.

(4) Central's preparation of a study of the physical and financial feasibility of transporting water to Central and distributing the water within Central utilizing the Goodwin Tunnel. The completed study is to be prepared at Central's expense, is to be consistent with the initial plan approved by SSJID, and is to be delivered to SSJID within one year of the date of this Agreement. The study is to include a detailed description of the necessary distribution facilities; a schedule of the times and rates of diversion of water at Goodwin Tunnel; an estimate of the losses anticipated from diversion at Goodwin Tunnel until application within Central; a cost breakdown for the project showing the estimated cost for permits, approvals, environmental compliance, construction, and conveyance; a time estimate for construction; the method for payment of the facilities; and the final estimated cost to users for delivered water.

(5) Acceptance of the feasibility study by SSJID's Board of Directors within 60 days of receipt.

(6) Central's preparation of the initial plan and the feasibility plan is not subject to any required action on the part of the Joint Districts.

11/14/96

(7) Completion of the facilities by Central at its expense pursuant to the feasibility study within one year from the date that all conditions to delivery of Water to Purchasers are satisfied.

(8) If any one of the above conditions is not satisfied by the specified date, all obligations of SSJID to Central in this paragraph are terminated.

B. General Provisions Applicable to Delivery

(1) SSJID has no obligation to make Water available to Central in any year unless the United States Bureau of Reclamation's April 1 forecast of inflow to New Melones exceeds 600,000 acre-feet.

(2) The quantities of water to be made available by SSJID are subject to reduction pursuant to the other provisions of this Agreement.

(3) It is understood Water made available to Central pursuant to this paragraph 35 is the obligation, subject to all of the terms of this Agreement, of SSJID alone.

(4) Central shall use Water made available by SSJID for irrigation purposes only and within Central alone. Central shall make water available to those areas which can be effectively served by the facilities constructed pursuant to the feasibility study and if additional water is still available after needs within those areas are satisfied, to other areas within Central.

(5) Central shall pay SSJID $15.00 per acre-foot for Water made available pursuant to this Agreement. The purchase price is subject to the adjustment provisions of Paragraph 8.

(6) Central agrees to perform all of the other covenants of Purchasers or of SEWD in the Agreement which are applicable to delivery of Agreement-Water by Joint Districts, except as is otherwise provided in this paragraph.

(7) Subject to the changes, limitations and other provisions in this Agreement, SSJID will make water available to Central according to the schedule set forth in Exhibit A.

No breach or termination of this Paragraph or failure of any of the conditions in this Paragraph shall affect the remainder of this Agreement.

36. EFFECTIVE DATE: The effective day and date of this Agreement shall be the day and date first above written.

11/14/96

37. COUNTERPARTS: This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement shall not be effective until the execution and delivery between each of the Parties of at least one set of counterparts. The Parties authorize each other to detach and combine original signature pages and consolidate them into a single identical original. Any one of such completely executed counterparts shall be sufficient proof of this Agreement.

38. GENERAL INTERPRETATION: The terms of this Agreement have been negotiated by the Parties hereto and the language used in this Agreement shall be deemed to be the language chosen by the Parties hereto to express their mutual intent. This Agreement shall be construed without regard to any presumption or rule requiring construction against the Party causing such instrument or any portion thereof to be drafted, or in favor of the Party receiving a particular benefit under the agreement. No rule of strict construction will be applied against any person.

OAKDALE IRRIGATION DISTRICT, a political subdivision of the State of California

By _____
Title President, Board of Directors

APPROVED AS TO FORM:

_____
General Counsel for Oakdale Irrigation District

ATTEST:

_____
Secretary

11/14/96

SOUTH SAN JOAQUIN IRRIGATION DISTRICT, a political subdivision of the State of California

By _____

Title Board President

APPROVED AS TO FORM:

_____

General Counsel for South San Joaquin Irrigation District

ATTEST: _____

Richard Martini

Secretary

11/14/96

STOCKTON EAST WATER DISTRICT, a political subdivision of the State of California

By Dino Giannecchini
Title Board President

ATTEST:

Secretary

APPROVED AS TO FORM:

General Counsel for Stockton East Water District

11/14/96

LINCOLN VILLAGE MAINTENANCE DISTRICT, a political subdivision of the State of California governed by the Board of Supervisors of San Joaquin County

By _____
EDWARD A. SIMAS, Chairman
Board of Supervisors of LVMD

APPROVED AS TO FORM:
TERRENCE R. DERMODY
County Counsel

By _____

ATTEST: LOIS M. SAHYOUN
Clerk of the Board of Supervisors
of the County of San Joaquin,
State of California

By _____
Deputy Clerk

11/14/96

COLONIAL HEIGHTS
MAINTENANCE DISTRICT, a
political subdivision of the State of
California governed by the Board of
Supervisors of San Joaquin County

By_____
EDWARD A. SIMAS, Chairman
Board of Supervisors of CHMD

ATTEST: LOIS M. SAHYOUN
Clerk of the Board of Supervisors
of the County of San Joaquin,
State of California

By:_____ (SEAL)
Deputy Clerk

APPROVED AS TO FORM:
TERRENCE R. DERMODY
County Counsel

By_____

11/14/96

CITY OF STOCKTON, a political subdivision of the State of California

By _____

Title City Manager

APPROVED AS TO FORM:

_____

City Attorney of the City of Stockton

ATTEST:

_____

~~Secretary~~ ASSISTANT CITY CLERK

11/14/96

CENTRAL SAN JOAQUIN WATER
CONSERVATION DISTRICT

By _____
Title President

APPROVED AS TO FORM:

ATTEST:

_____
Secretary

_____
General Counsel for Central San
Joaquin Water Conservation District

11/14/96

EXHIBIT A
Delivery Schedule

	SEWD			CENTRAL	
MONTH	AF	AVE DCFS	MAX D CFS	AF	AVE DCFS
January	1000	17	34	0	
February	1000	17	34	0	
March	1000	17	34	0	
April	3000	50	100	2000	33
May	4000	66	130	2000	33
June	4000	66	130	3000	50
July	4000	66	130	3000	50
August	4000	66	130	3000	50
September	3000	50	100	2000	33
October	2000	33	66	0	
November	2000	33	66	0	
December	1000	17	34	0	
TOTALS	30000 AF	498	998	15000	249

OID and SSJID shall deliver the average daily cfs to the Goodwin Tunnel intake unless notified otherwise by purchasers pursuant to paragraph 15 of the agreement.

12/12/96

EXHIBIT D

RESOLUTION TD-99-04
JOINT RESOLUTIONS
OF
SOUTH SAN JOAQUIN IRRIGATION DISTRICT
AND
OAKDALE IRRIGATION DISTRICT

CERTIFYING ENVIRONMENTAL IMPACT REPORT
FOR WATER TRANSFER PROJECT

WHEREAS, South San Joaquin Irrigation District (SSJID) and Oakdale Irrigation District (OID) have proposed to transfer up to 30,000 acre-feet of surface water annually over a 10-year period through existing conveyance facilities to the Stockton East Water District and its customers, the City of Stockton and the Lincoln Village and Colonial Heights Maintenance Districts ("Water Transfer Project.")

WHEREAS, SSJID and OID as lead agencies prepared and circulated a draft Environmental Impact Report (DEIR) dated March 1999 regarding the Water Transfer Project, in accordance with the California Environmental Quality Act (Public Resources Code §21000 et seq.; "CEQA").

WHEREAS, SSJID and OID have reviewed the DEIR, and the analysis of potential environmental impacts from the Water Transfer Project described in the DEIR, and concur with the findings in the DEIR that there are no significant environmental impacts from the Water Transfer Project.

WHEREAS, SSJID and OID have jointly prepared and circulated responses to comments and recommendations received on the DEIR, in accordance with CEQA.

WHEREAS, changes to the DEIR are not necessary for it to satisfy CEQA as a result of the comments and recommendations received.

WHEREAS, SSJID and OID have jointly prepared a final Environmental Impact Report which consists of the DEIR, all comments and recommendations received on the DEIR and the list of persons, organizations and public agencies that have commented on the DEIR and the responses of SSJID and OID to the comments and recommendations received on the DEIR ("Final EIR").

WHEREAS, SSJID and OID have each reviewed and considered the information in the Final EIR before deciding whether to carry out the Water Transfer Project.

WHEREAS, SSJID and OID each find that the Final EIR has been completed in compliance with CEQA.

WHEREAS, SSJID and OID each find that the Final EIR reflects their respective independent judgments.

WHEREAS, SSJID and OID make as part of their findings all of the analysis and findings in the Final EIR.

NOW THEREFORE, BE IT RESOLVED that the Board of Directors of South San Joaquin Irrigation District and the Board of Directors of Oakdale Irrigation District each take the following actions:

1. Make the findings set forth above, each of which is found to be true.

2. Adopt the Final EIR.

3. Incorporate all of the findings in the Final EIR into the record of their adoption of the Final EIR and their decision to carry out the Water Transfer Project.

4. Find that the Water Transfer Project will not cause any significant environmental impacts.

5. Elect to carry out the Water Transfer Project beginning October 1, 1999.

6. Direct the general managers of each district to execute a Notice of Determination as to the actions set forth above in the form presented at this meeting with such changes as are acceptable to the general managers, to file a Notice of Determination with the County Clerks of Stanislaus, Calaveras, Tuolumne and San Joaquin Counties for posting for a thirty day period in accordance with CEQA and to file a copy of the Notice of Determination with the State Clearinghouse.

7. Direct that any required filing fee for filing the Notice of Determination, including any fee due the Department of Fish and Game, be paid.

8. That the documents and other materials that constitute the record of the proceedings regarding the Final EIR for the Water Transfer Project adopted by San Joaquin Irrigation District and Oakdale Irrigation District is available at:

South San Joaquin Irrigation District
11011 E. Highway 120
Manteca, CA 95336

Oakdale Irrigation District
1205 East "F" Street
Oakdale, CA 95370

PASSED AND ADOPTED this 27th day of July 1999, by the following roll call vote:

OAKDALE IRRIGATION DISTRICT

AYES: Burtschi, Francis, Webb, Taro
NOES:
ABSENT: Price
ABSTAIN:

SOUTH SAN JOAQUIN IRRIGATION DISTRICT

AYES: DeGroot, Kamper, Schulz, Haworth
NOES:
ABSENT: Roos
ABSTAIN:

OADKALE IRRIGATION DISTRICT -
SOUTH SAN JOAQUIN IRRIGATION DISTRICT -
TRI-DAM PROJECT

OAKDALE IRRIGATION DISTRICT

Vice President, Henry Burtschi

Secretary, Wayne Marcus

SOUTH SAN JOAQUIN IRRIGATION DISTRICT

Vice President, Dave Kamper

Secretary, Richard Martin

EXHIBIT E

City of Stockton

Findings for the

Oakdale and South San Joaquin Irrigation District

Water Transfer Project

Containing

- Issue/Impact and Mitigation Measures
- Findings

CITY OF STOCKTON
CEQA FINDINGS AND MITIGATION MONITORING/REPORTING PROGRAM
(PURSUANT TO CALIFORNIA PUBLIC RESOURCES CODE SECTIONS 21081 AND 21081.6)

JECT DATA

TIAL STUDY FILE NO.: IS12-99 (or) EIR FILE NO.: ER

ate Clearinghouse No.: SCH#97122035 (If submitted to Clearinghouse)

lated File No.(s):

'operty Owner(s): Oakdale and South San Joaquin Irrigation Districts, City of Stockton East Water District for San Joaquin County

ddress: Water Transfer involves portions of San Joaquin, Calaveras, Stanislaus and Tuolumne Counties
Zip Phone ( )

roject Applicant: South San Joaquin Irrigation District and Oakdale Irrigation District

ontact Person: Dean Ruiz, Assistant Planner

Address: 326 N. El Dorado Street
Stockton Zip 95202 Phone (209) 937-8266

'roject Title: Water Transfer Project of the South San Joaquin Irrigation District and Oakdale Irrigation District

ddress: Counties of San Joaquin, Stanislaus, Tuolumne and Calaveras

'roject Description/Location: South San Joaquin Irrigation District and Oakdale Irrigation district have proposed to transfer up o 30,000 acre-feet of surface water annually over a 10-year period through existing conveyance facilities to the Stockton East Water District and its customers, the City of Stockton and the Lincoln Village and Colonial Heights Maintenance Districts "Project").

KEY

1. The impacts are shaded and followed by related mitigation measures, implementation and monitoring provisions, and findings.

2. Abbreviations:
N/A=(Not Applicable); COS=(City of Stockton); ODS=(Owners, Developers and/or Successors-in-Interest); CDD=(Community Development Department); CD-P=(Community Development-Planning Division); CD-B=(Community Development-Building Division); PW=(Public Works Department); CM=(City Manager); CA=(City Attorney); P&R=(Parks and Recreation Department); HR=(Housing and Redevelopment Department); MUD=(Municipal Utilities Department); FD=(Fire Department); PD=(Police Department); PC=(Planning Commission); CC=(City Council); SJC=(San Joaquin County); ALUC=(Airport Land Use Commission).

3. Related Notes:

NDINGS AND LEVEL OF SIGNIFICANCE AFTER MITIGATION

Findings for significant and potentially significant impacts identified in the Final EIR or Negative Declaration/Initial Study are listed as follows:

1. Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect identified in the Final EIR or Negative Declaration/Initial Study, or

2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the City of Stockton. Such changes have been adopted by such other agency, or

3. The City of Stockton is adopting, or has previously adopted, specific economic, social, or other considerations which make infeasible the mitigation measures and project alternatives identified in the Final EIR or Negative Declaration/Initial Study.

The level of significance (LS) of each impact after mitigation is listed as: S= (significant), PS=(potentially significant), SU=(significant and unavoidable), or NS=(not significant). The basis for Finding 1 and/or 2 is provided in applicable sections of the Final EIR or Negative Declaration/Initial Study and any basis for Finding 3 (Statement of Overriding Considerations) is attached or enclosed with this document.

ESPONSIBLE AGENCY
ITY OF STOCKTON
/o Community Development Dept./Planning Division
46 North El Dorado Street, Stockton, CA 95202-1997
209) 937-8266

(DATE FINDINGS/MONITORING PROGRAM ADOPTED)

ISSUE/IMPACT AND MITIGATION MEASURES	MITIGATION MONITORING/REPORTING RESPONSIBILITY AND TIMING	FINDINGS/LS AFTER MITIGATION
WATER RESOURCES		
Issue 4.1.4: Implementation of the proposed project would result in a decrease of total inflows to the Stanislaus River which would result in reduced surface water levels in the San Joaquin River. No mitigation required.	N/A	LS
Issue 4.1.5: Implementation of the proposed project would result in a decrease of total inflows to the Stanislaus River which would result in reduced surface water levels in the San Joaquin River. No mitigation required.	N/A	LS
Issue 4.1.6: Implementation of the proposed project would result in a decrease of total inflows to the Stanislaus River which would result in exceedance of DPS water quality standards which could adversely affect beneficial uses of the San Joaquin River. No mitigation required.	N/A	LS
Issue 4.1.7: Implementation of the proposed project would result in additional groundwater pumping which would result in a reduction of groundwater supplies in the Modesto Groundwater Basin. No mitigation required.	N/A	LS
Issue 4.1.8: Implementation of the proposed project would result in additional groundwater pumping which would result in a decrease in groundwater levels in the Modesto Groundwater Basin. No mitigation required.	N/A	LS
Issue 4.1.9: Implementation of the proposed project would result in a decrease in groundwater quality in the Modesto Groundwater Basin which could result in a decrease in groundwater quality. No mitigation required.	N/A	LS
Issue 4.1.10: Implementation of the proposed project would result in cumulative adverse impacts to the Stanislaus and San Joaquin Rivers which would result in a decrease in surface water levels in the San Joaquin River. No mitigation required.	N/A	LS
Issue 4.1.11: Implementation of the proposed project would result in cumulative adverse impacts to the Stanislaus and San Joaquin Rivers which would result in a decrease of total inflows to the Stanislaus River which would result in exceedance of DPS water quality standards which could adversely affect beneficial uses of the San Joaquin River. No mitigation required.	N/A	LS
Issue 4.1.12: Cumulative increase in groundwater pumping which would result in a decrease in groundwater supplies in the Modesto Groundwater Basin which would result in lower groundwater levels in the Modesto Groundwater Basin. No mitigation required.	N/A	LS

ISSUE/IMPACT AND MITIGATION MEASURES	MITIGATION MONITORING/REPORTING RESPONSIBILITY AND TIMING	SIGNIFICANCE OF FINDINGS/LS AFTER MITIGATION
2 FISHERIES		
Issue 4.2.1: Implementation of the proposed project would result in a decrease of return flows to the Stanislaus River which would alter aquatic habitat.	N/A	LS
No mitigation required.		
Issue 4.2.2: Implementation of the proposed project would result in a decrease of return flows to the Stanislaus River which would raise elevated temperatures which would affect juvenile salmonids.	N/A	LS
No mitigation required.		
Issue 4.2.3: Implementation of the proposed project would result in a decrease of return flows to the Stanislaus River which would raise elevated DS levels which could affect resident and migratory fish.	N/A	LS
No mitigation required.		
Issue 4.2.4: Implementation of the proposed project in combination with cumulative diversions on the Stanislaus and San Joaquin Rivers would result in a decrease of flows to the San Joaquin River which could affect aquatic habitat.	N/A	LS
No mitigation required.		
Issue 4.2.5: Implementation of the proposed project in combination with cumulative diversions on the Stanislaus and San Joaquin Rivers would result in a decrease of return flows to the San Joaquin River which would affect aquatic habitat by reduced temperatures which could affect resident warm water fish.	N/A	LS
No mitigation required.		
Issue 4.2.6: Implementation of the proposed project in combination with cumulative diversions on the Stanislaus and San Joaquin Rivers would result in a decrease of return flows to the San Joaquin River which would raise elevated DS levels which could affect resident and migratory fish.	N/A	LS
No mitigation required.		

EXHIBIT "C"

LIST of PENDING DEVELOPMENTS

LINK TO MAP

CITY OF STOCKTON

CITY OF STOCKTON
RESIDENTIAL DEVELOPMENT

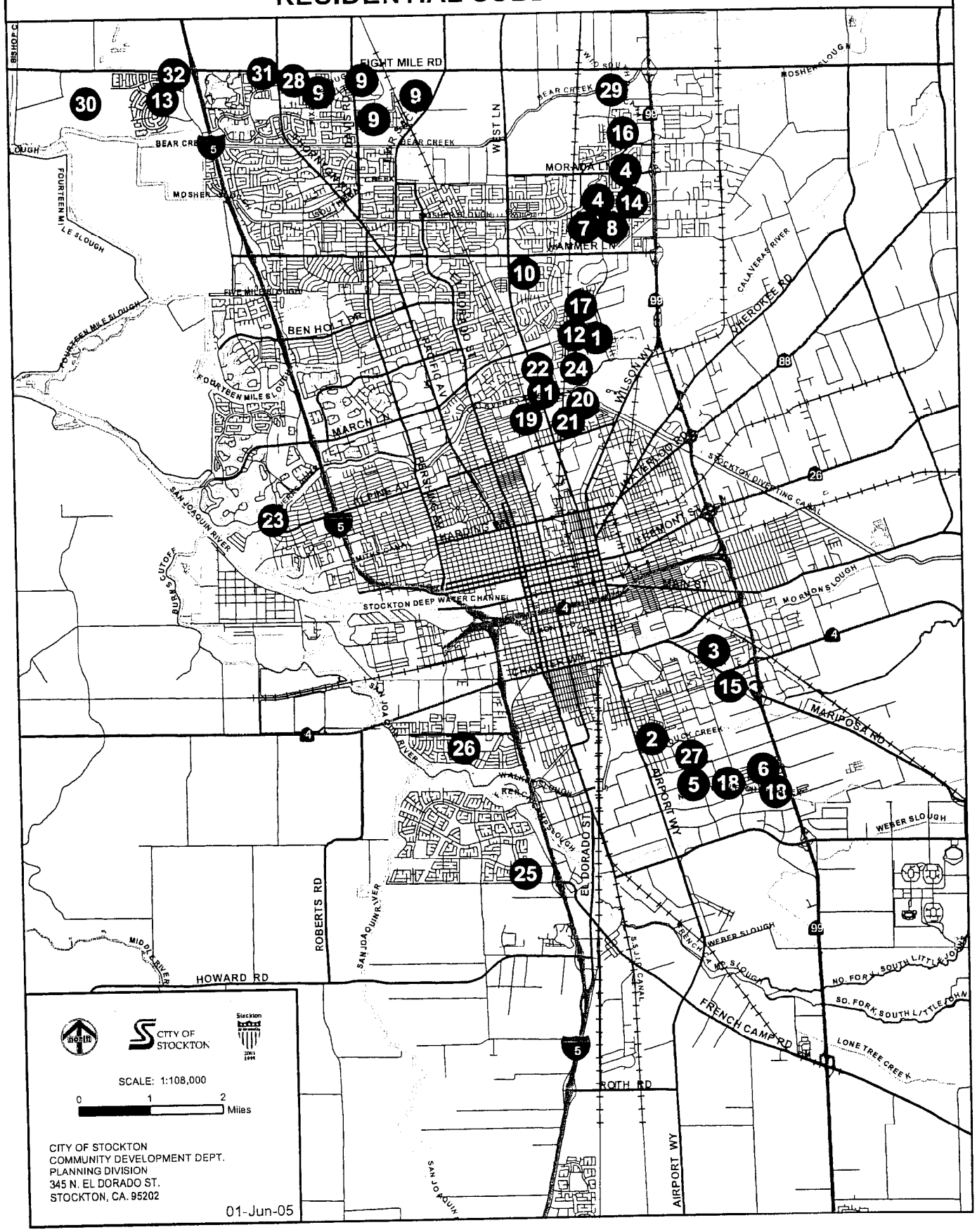
Map #	Residential Subdivison Project Name	Tentative Map #	TM Acres	TM Units Planned	Final Map Total Acreage	Final Map Units	Bdg Permits Issued	Lots Remain	% Project Completion
1	Blossom Ranch	TM16-90, TM 4-00, TM17-02	193	646	189	635	475	160	75%
2	Rancho Del Sol	TM3-03	52	248	90	246	105	141	43%
3	Juliet Terrace	TM26-02	14	83	14	83	82	1	99%
4	LaMorada	TM18-88	471	1,558	481	1,617	1,522	95	94%
5	Ninfantino Estates	TM13-03	5	29	5	29	29	0	100%
6	Little John Creek	TM13-90	151	701	121	790	734	56	93%
7	Sonata	TM10-03	16	84	16	84	82	2	98%
8	Morada Ranch	TM3-92, TM19-03	266	769	266	767	575	192	75%
9	North Stockton Projects: Elkhorn Country Club, Waterford Estates West and East, Beck Ranch, Beck Estates, Fairway Greens, Beck Farms, Windmill Park, Meadowlands	TM1-98, TM2-98, TM3-98, TM4-98, TM14-98, TM5-98, TM15-03, TM6-03, TM 24-04	393	1,700	411	1,760	1,204	556	68%
10	Enclave at Hammertown	TM29-03	10	80	10	80	20	60	0%
11	Weber Grove	TM17-03	5	41	5	41	37	4	90%
12	Hunter Ridge (Sperry)	TM20-03	34	184	46	180	116	64	64%
13	Spanos Park West (SPW)	See List	258	1,198	258	1,198	1,044	154	87%
14	Villa Tuscany (Hatch Ranch)	TM05-01	139	591	139	591	432	159	73%
15	Montclair (McGinnity Homes)	TM14-03	24	137	24	137	115	22	84%
16	Villa Antinori	TM13-02	64	338	64	338	273	65	81%
17	Mariposa (Camera)	TM12-01	194	763	194	763	389	374	51%
18	Seabreeze I and II	TM5-03 & TM21-03	50	252	6	52	47	5	90%
19	Calaveras Estates #2	TM2-01	6	38	6	38	27	11	71%
20	Oakmore Meadows	TM18-02	68	240	68	240	0	240	0%
21	Montego I & II	TM9-03, TM7-04	82	393	80	379	29	350	8%
22	Weber Woods (Duplexes & Triplexes)	TM14-01	4	40	4	40	18	22	45%
23	Mariana Estates (Darrah)	* SU01-03, IS28-03, Z13-03	25	73	*NOT FINALED*	*73*	0	73	0%
24	Riverbend & Riverbend West	TM14-04 & TM15-04	337	608	*NOT FINALED*	*608*	0	608	0%
25	Cornerstone II	TM25-03	14	66	*NOT FINALED*	*66*	0	66	0%
26	Lever Estates	TM32-03	6	35	6	35	35	0	100%
27	Simbad Estates	TM9-04	5	28	*NOT FINALED*	*28*	0	28	0%
28	Silver Springs / Gold Springs	TM28-03 & TM10-04	96	305	*NOT FINALED*	*305*	0	305	0%
29	Cannery Park	TM8-04	450	1,100	*NOT FINALED*	*1,100*	0	1,100	0%
30	Westlake Villages (SPW)	TM18-04	680	2,600	*NOT FINALED*	*2,600*	0	2,600	0%
31	Springbrook (SPE)	TM16-04	24	209	*NOT FINALED*	*209*	0	209	0%
32	Astoria (SPW)	TM17-04	7	68	*NOT FINALED*	*68*	0	68	0%
33					*0*	0	0	0	0%
34									0%
	SINGLE FAMILY TOTAL:		**4,143**	**15,205**	**2,503**	**15,180**	**7,390**	**4,913**	**49%**
	MULTIFAMILY TOTAL:		**83**	**1,502**	**83**	**1,502**	**302**	**1,200**	**20%**

"TM Acres" refers to the gross acreage listed in the approved Tentative Map
"Final Map Acreage" is the total gross acreage represented in final maps
"Building Permits" represent the number of permits issued to date
"Multi Family Projects" are four attached units or more

"TM Units Planned" refers to the maximum number of parcels listed on the Tentative Map
"Final Units Planned" are based on final map
"Lots Remaining" are the lots with out building permits issued in that project
Based on Tentative Maps of 20 parcels or more

Updated: 6/6/2005

RESIDENTIAL SUBDIVISIONS



sesub25stat.mxd

Appendix E
Fehr & Press Traffic Study

ESA

APPENDIX A:
TRAFFIC COUNTS

All Traffic Data
(916) 771-8700
Fax 786-2879

CITY OF STOCKTON

Site Code : 00000000
Start Date: 12/15/04
File I.D. : 2
Page : 1

	MCDOUGALD BLVD. Southbound				CAROLYN WESTON BLVD. Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	4	1	1	6	9	53	2	64	0	0	22	22	1	109	1	111	203
7:15	3	0	0	3	16	88	0	104	1	0	32	33	0	114	0	114	254
7:30	3	0	1	4	17	71	2	90	2	1	42	45	0	154	0	154	293
7:45	2	3	0	5	33	72	1	106	1	0	47	48	2	169	3	174	333
Hour Total	12	4	2	18	75	284	5	364	4	1	143	148	3	546	4	553	1083
8:00am	8	7	1	16	25	55	1	81	6	3	46	55	0	124	10	134	286
8:15	3	1	0	4	27	65	1	93	4	1	48	53	0	132	2	134	284
8:30	3	1	1	5	21	51	5	77	3	2	34	39	0	115	4	119	240
8:45	4	0	0	4	17	45	7	69	2	1	29	32	0	93	3	96	201
Hour Total	18	9	2	29	90	216	14	320	15	7	157	179	0	464	19	483	1011
Grand	30	13	4	47	165	500	19	684	19	8	300	327	3	1010	23	1036	2094
% of Total	1.4%	.6%	.2%		7.9%	23.9%	.9%		.9%	.4%	14.3%		.1%	48.2%	1.1%		
Apprch %				2.2%				32.7%				15.6%				49.5%	
% of Apprch	63.8%	27.7%	8.5%		24.1%	73.1%	2.8%		5.8%	2.4%	91.7%		.3%	97.5%	2.2%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 12/15/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	MCDOUGALD BLVD.	07:30am	.453	16	11	2	0	29	55.1	37.9	6.8	.0
Westbound	CAROLYN WESTON BLVD.		.873	102	263	5	0	370	27.5	71.0	1.3	.0
Northbound			.914	13	5	183	0	201	6.4	2.4	91.0	.0
Eastbound			.856	2	579	15	0	596	.3	97.1	2.5	.0

MCDOUGALD BLVD.

2 | 11 | 16

2
5
5
=====
12

Inbound	29
Outbound	12
Total	41

5

13
278 263
2

2

263

	Inbound	596
	Outbound	278
579	Total	874

Inbound	370	
Outbound	778	102
Total	1148	

15

16
579 778
183

CAROLYN WESTON BLVD.

Inbound	201
Outbound	128
Total	329

102 | 13 | 5 | 183

11
15
=====
128

All Traffic Data
(916) 771-8700
Fax 786-2879

CITY OF STOCKTON

Site Code : 00000000
Start Date: 12/15/04
File I.D. : 2
Page : 1

	MCDOUGALD BLVD. Southbound				CAROLYN WESTON BLVD. Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
4:00pm	2	1	0	3	27	146	9	182	0	0	23	23	1	121	1	123	331
4:15	2	0	0	2	44	166	7	217	1	0	19	20	0	101	0	101	340
4:30	4	0	1	5	29	157	5	191	1	0	33	34	0	96	0	96	326
4:45	2	0	0	2	48	169	7	224	1	0	30	31	0	91	0	91	348
Hour Total	10	1	1	12	148	638	28	814	3	0	105	108	1	409	1	411	1345
5:00pm	3	0	0	3	50	158	5	213	1	1	30	32	0	92	1	93	341
5:15	4	2	0	6	67	189	4	260	0	2	29	31	0	97	1	98	395
5:30	5	1	0	6	62	172	6	240	1	0	20	21	0	108	2	110	377
5:45	8	0	0	8	48	181	3	232	3	1	31	35	0	100	3	103	378
Hour Total	20	3	0	23	227	700	18	945	5	4	110	119	0	397	7	404	1491
Grand	30	4	1	35	375	1338	46	1759	8	4	215	227	1	806	8	815	2836
% of Total	1.1%	.1%	0.0%		13.2%	47.2%	1.6%		.3%	.1%	7.6%		0.0%	28.4%	.3%		
Apprch %				1.2%				62.0%				8.0%				28.7%	
% of Apprch	85.7%	11.4%	2.9%		21.3%	76.1%	2.6%		3.5%	1.8%	94.7%		.1%	98.9%	1.0%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 12/15/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	MCDOUGALD BLVD.	05:00pm	.719	20	3	0	0	23	86.9	13.0	.0	.0
Westbound	CAROLYN WESTON BLVD.		.909	227	700	18	0	945	24.0	74.0	1.9	.0
Northbound			.850	5	4	110	0	119	4.2	3.3	92.4	.0
Eastbound			.918	0	397	7	0	404	.0	98.2	1.7	.0

MCDOUGALD BLVD.

0	3	20	0
			4
			18
			=====
			22

Inbound	23
Outbound	22
Total	45

18

5
705 700
0

0

700

Inbound	404
Outbound	705
Total	1109

397

Inbound	945
Outbound	527
Total	1472

227

7

20
397 527
110

CAROLYN WESTON BLVD.

Inbound	119
Outbound	237
Total	356

227 5 4 110
3
7
=====
237

2

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	Southbound				DOWNING AVENUE Westbound				MANTHEY ROAD Northbound				CAROLYN WESTON BLVD. Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	0	0	0	0	22	63	0	85	6	0	17	23	0	119	9	128	236
7:15	0	0	0	0	28	92	0	120	13	0	32	45	0	135	8	143	308
7:30	0	0	0	0	49	82	0	131	33	0	39	72	0	181	8	189	392
7:45	0	0	0	0	36	92	0	128	21	0	45	66	0	184	4	188	382
Hour Total	0	0	0	0	135	329	0	464	73	0	133	206	0	619	29	648	1318
8:00am	0	0	0	0	24	68	0	92	18	0	48	66	0	175	11	186	344
8:15	0	0	0	0	36	92	0	128	16	0	34	50	0	168	14	182	360
8:30	0	0	0	0	33	66	0	99	15	0	42	57	0	146	11	157	313
8:45	0	0	0	0	36	50	0	86	19	0	29	48	0	133	8	141	275
Hour Total	0	0	0	0	129	276	0	405	68	0	153	221	0	622	44	666	1292
Grand	0	0	0	0	264	605	0	869	141	0	286	427	0	1241	73	1314	2610
% of Total	0.0%	0.0%	0.0%		10.1%	23.2%	0.0%		5.4%	0.0%	11.0%		0.0%	47.5%	2.8%		
Apprch %								33.3%				16.4%				50.3%	
% of Apprch	0.0%	0.0%	0.0%		30.4%	69.6%	0.0%		33.0%	0.0%	67.0%		0.0%	94.4%	5.6%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound		07:30am	.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Westbound	DOWNING AVENUE		.914	145	334	0	0	479	30.2	69.7	.0	.0
Northbound	MANTHEY ROAD		.882	88	0	166	0	254	34.6	.0	65.3	.0
Eastbound	CAROLYN WESTON BLVD.		.985	0	708	37	0	745	.0	95.0	4.9	.0

0 | 0 | 0 ‖ 0
0
0
=====
0

Inbound 0
Outbound 0
Total 0

CAROLYN WESTON BLVD.

88
422 334
0

0

0

334

Inbound 745
Outbound 422
708 Total 1167

Inbound 479
Outbound 874 145
Total 1353

37

0
708 874
166
DOWNING AVENUE

Inbound 254
Outbound 182
Total 436

145 ‖ 88 | 0 | 166
0
37
=====
182
MANTHEY ROAD

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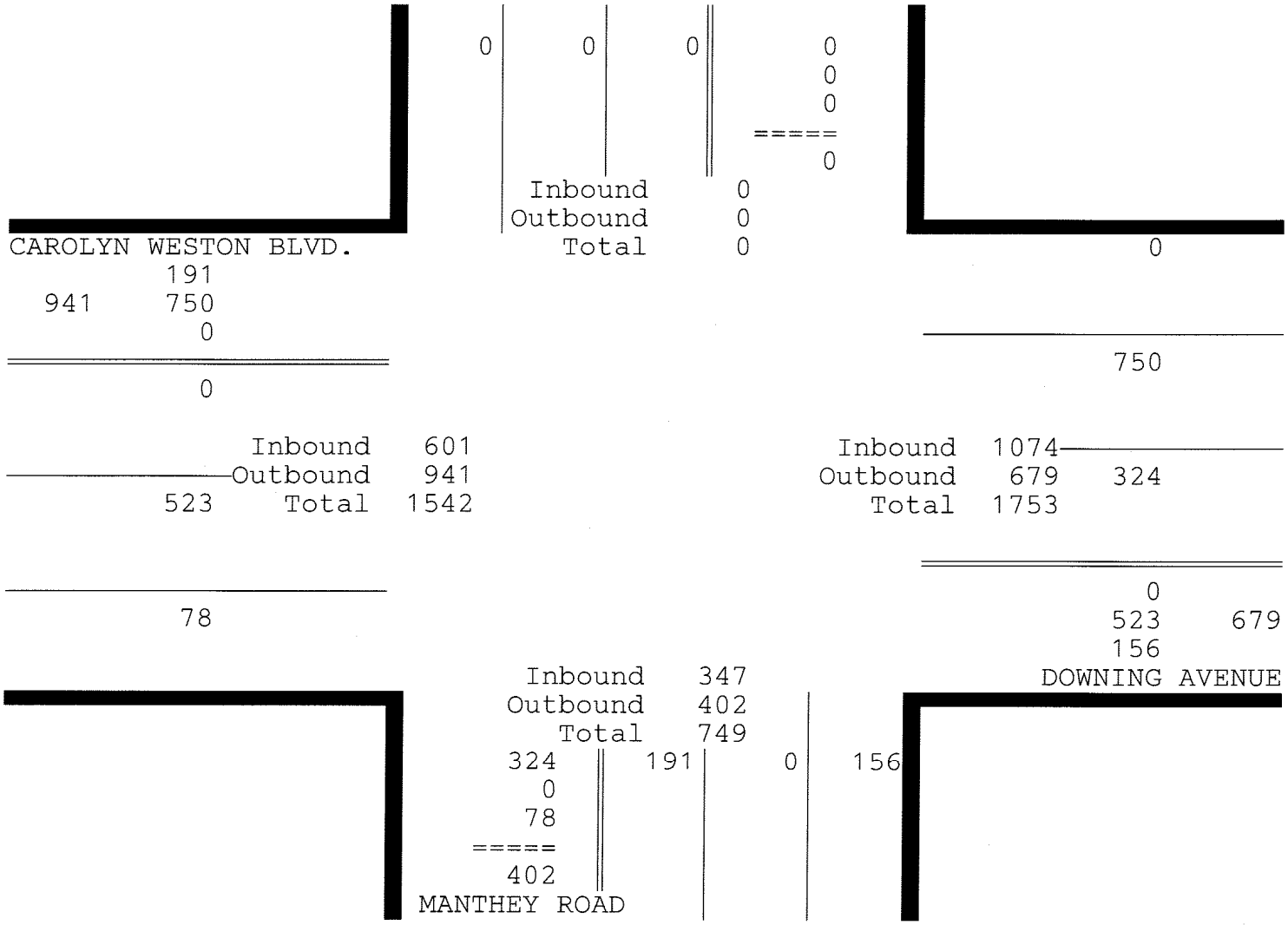
	Southbound				DOWNING AVENUE Westbound				MANTHEY ROAD Northbound				CAROLYN WESTON BLVD. Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
4:00pm	0	0	0	0	78	145	0	223	42	0	42	84	0	154	21	175	482
4:15	0	0	0	0	80	159	0	239	40	0	43	83	0	119	26	145	467
4:30	0	0	0	0	80	187	0	267	49	0	40	89	0	131	27	158	514
4:45	0	0	0	0	79	177	0	256	49	0	42	91	0	130	20	150	497
Hour Total	0	0	0	0	317	668	0	985	180	0	167	347	0	534	94	628	1960
5:00pm	0	0	0	0	87	174	0	261	38	0	44	82	0	132	13	145	488
5:15	0	0	0	0	78	212	0	290	55	0	30	85	0	130	18	148	523
5:30	0	0	0	0	91	179	0	270	55	0	46	101	0	113	16	129	500
5:45	0	0	0	0	87	177	0	264	47	0	48	95	0	132	19	151	510
Hour Total	0	0	0	0	343	742	0	1085	195	0	168	363	0	507	66	573	2021
Grand	0	0	0	0	660	1410	0	2070	375	0	335	710	0	1041	160	1201	3981
% of Total	0.0%	0.0%	0.0%		16.6%	35.4%	0.0%		9.4%	0.0%	8.4%		0.0%	26.1%	4.0%		
Apprch %								52.0%				17.8%				30.2%	
% of Apprch	0.0%	0.0%	0.0%		31.9%	68.1%	0.0%		52.8%	0.0%	47.2%		0.0%	86.7%	13.3%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound		04:30pm	.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Westbound	DOWNING AVENUE		.926	324	750	0	0	1074	30.1	69.8	.0	.0
Northbound	MANTHEY ROAD		.953	191	0	156	0	347	55.0	.0	44.9	.0
Eastbound	CAROLYN WESTON BLVD.		.951	0	523	78	0	601	.0	87.0	12.9	.0


0
0
0
0
0
0
=====
0
Inbound 0
Outbound 0
Total 0
CAROLYN WESTON BLVD.
191
941 750
0
0
0
750
Inbound 601
Outbound 941
523 Total 1542
Inbound 1074
Outbound 679 324
Total 1753
78
0
523 679
156
DOWNING AVENUE
Inbound 347
Outbound 402
Total 749
324 191 0 156
0
78
=====
402
MANTHEY ROAD

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	SR 5 SOUTH BOUND OFF RAMP				DOWNING AVENUE				SR 5 SOUTH BOUND ON RAMP								
	Southbound				Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	29	0	53	82	13	32	0	45	0	0	0	0	0	99	38	137	264
7:15	23	0	66	89	4	53	0	57	0	0	0	0	0	134	33	167	313
7:30	43	1	82	126	5	49	0	54	0	0	0	0	0	189	31	220	400
7:45	52	0	78	130	6	50	0	56	0	0	0	0	0	191	38	229	415
Hour Total	147	1	279	427	28	184	0	212	0	0	0	0	0	613	140	753	1392
8:00am	50	2	66	118	4	26	0	30	0	0	0	0	0	187	36	223	371
8:15	58	0	72	130	5	57	0	62	0	0	0	0	0	173	29	202	394
8:30	20	1	62	83	3	39	0	42	0	0	0	0	0	153	35	188	313
8:45	20	1	54	75	1	32	0	33	0	0	0	0	0	139	23	162	270
Hour Total	148	4	254	406	13	154	0	167	0	0	0	0	0	652	123	775	1348
Grand	295	5	533	833	41	338	0	379	0	0	0	0	0	1265	263	1528	2740
% of Total	10.8%	.2%	19.5%		1.5%	12.3%	0.0%		0.0%	0.0%	0.0%		0.0%	46.2%	9.6%		
Apprch %				30.4%				13.8%								55.8%	
% of Apprch	35.4%	.6%	64.0%		10.8%	89.2%	0.0%		0.0%	0.0%	0.0%		0.0%	82.8%	17.2%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	SR 5 SOUTH BOUND OFF RA	07:30am	.969	203	3	298	0	504	40.2	.5	59.1	.0
Westbound	DOWNING AVENUE		.815	20	182	0	0	202	9.9	90.0	.0	.0
Northbound	SR 5 SOUTH BOUND ON RAM		.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Eastbound			.954	0	740	134	0	874	.0	84.6	15.3	.0

SR 5 SOUTH BOUND OFF RAMP

298	3	203	0
			0
			0
			=====
			0

Inbound	504
Outbound	0
Total	504

0

0
480 182
298

0

182

Inbound 874
Outbound 480
740 Total 1354

Inbound 202
Outbound 943 20
Total 1145

134

203
740 943
0

Inbound 0
Outbound 157
Total 157

20	0	0	0
3			
134			
=====			
157			

SR 5 SOUTH BOUND ON RAMP

DOWNING AVENUE

3

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	SR 5 SOUTH BOUND OFF RAMP				DOWNING AVENUE				SR 5 SOUTH BOUND ON RAMP								
	Southbound				Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
4:00pm	16	1	135	152	4	88	0	92	0	0	0	0	0	171	25	196	440
4:15	24	1	155	180	1	83	0	84	0	0	0	0	0	137	25	162	426
4:30	36	0	161	197	2	108	0	110	0	0	0	0	0	142	29	171	478
4:45	32	0	172	204	0	87	0	87	0	0	0	0	0	149	23	172	463
Hour Total	108	2	623	733	7	366	0	373	0	0	0	0	0	599	102	701	1807
5:00pm	28	0	168	196	6	92	0	98	0	0	0	0	0	155	21	176	470
5:15	22	0	180	202	4	112	0	116	0	0	0	0	0	142	18	160	478
5:30	17	1	180	198	3	90	0	93	0	0	0	0	0	150	9	159	450
5:45	14	0	175	189	7	89	0	96	0	0	0	0	0	160	20	180	465
Hour Total	81	1	703	785	20	383	0	403	0	0	0	0	0	607	68	675	1863
Grand	189	3	1326	1518	27	749	0	776	0	0	0	0	0	1206	170	1376	3670
% of Total	5.1%	.1%	36.1%		.7%	20.4%	0.0%		0.0%	0.0%	0.0%		0.0%	32.9%	4.6%		
Apprch %				41.4%				21.1%								37.5%	
% of Apprch	12.5%	.2%	87.4%		3.5%	96.5%	0.0%		0.0%	0.0%	0.0%		0.0%	87.6%	12.4%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	SR 5 SOUTH BOUND OFF RA	04:30pm	.979	118	0	681	0	799	14.7	.0	85.2	.0
Westbound	DOWNING AVENUE		.886	12	399	0	0	411	2.9	97.0	.0	.0
Northbound	SR 5 SOUTH BOUND ON RAM		.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Eastbound			.964	0	588	91	0	679	.0	86.5	13.4	.0

SR 5 SOUTH BOUND OFF RAMP

681	0	118	0
			0
			0
			=====
			0

Inbound	799
Outbound	0
Total	799

0

0
1080 399
681

0

Inbound 679
Outbound 1080
~~588~~ 587 Total 1759

91

399 ~~399~~ 400

412 ~~411~~
Inbound
Outbound ~~706~~ 707 12
Total 1117

118
588 706
0

DOWNING AVENUE

Inbound	0
Outbound	103
Total	103

12	0	0	0
0			
91			
=====			
103			

SR 5 SOUTH BOUND ON RAMP

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	SR 5 NORTH BOUND ON RAMP				DOWNING AVENUE				SR 5 NORTH BOUND OFF RAMP								
	Southbound				Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	0	0	0	0	0	29	15	44	16	0	5	21	81	46	0	127	192
7:15	0	0	0	0	0	30	14	44	27	1	5	33	114	43	0	157	234
7:30	0	0	0	0	0	36	23	59	18	0	5	23	157	75	0	232	314
7:45	0	0	0	0	0	39	25	64	17	0	4	21	164	79	0	243	328
Hour Total	0	0	0	0	0	134	77	211	78	1	19	98	516	243	0	759	1068
8:00am	0	0	0	0	0	18	30	48	12	1	5	18	163	74	0	237	303
8:15	0	0	0	0	0	42	46	88	19	0	4	23	147	84	0	231	342
8:30	0	0	0	0	0	23	17	40	19	0	2	21	136	38	0	174	235
8:45	0	0	0	0	0	21	14	35	13	1	4	18	119	40	0	159	212
Hour Total	0	0	0	0	0	104	107	211	63	2	15	80	565	236	0	801	1092
Grand	0	0	0	0	0	238	184	422	141	3	34	178	1081	479	0	1560	2160
% of Total	0.0%	0.0%	0.0%		0.0%	11.0%	8.5%		6.5%	.1%	1.6%		50.0%	22.2%	0.0%		
Apprch %								19.5%				8.2%				72.2%	
% of Apprch	0.0%	0.0%	0.0%		0.0%	56.4%	43.6%		79.2%	1.7%	19.1%		69.3%	30.7%	0.0%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	SR 5 NORTH BOUND ON RAM	07:30am	.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Westbound	DOWNING AVENUE		.736	0	135	124	0	259	.0	52.1	47.8	.0
Northbound	SR 5 NORTH BOUND OFF RA		.924	66	1	18	0	85	77.6	1.1	21.1	.0
Eastbound			.970	631	312	0	0	943	66.9	33.0	.0	.0

SR 5 NORTH BOUND ON RAMP

0	0	0	631
			1
			124
			=====
			756

Inbound	0
Outbound	756
Total	756

124

66
201 135
0

631

~~135~~
136

	Inbound	943
312	Outbound	~~201~~ 202
	Total	1144

	Inbound	259
0	Outbound	330
	Total	589

0

0
312 330
18
DOWNING AVENUE

Inbound	85
Outbound	0
Total	85

0	66	1	18
0			
0			
=====			
0			

SR 5 NORTH BOUND OFF RAMP

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	SR 5 NORTH BOUND ON RAMP				DOWNING AVENUE				SR 5 NORTH BOUND OFF RAMP								
	Southbound				Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
4:00pm	0	0	0	0	0	50	30	80	42	0	7	49	144	43	0	187	316
4:15	0	0	0	0	0	44	33	77	40	0	10	50	113	49	0	162	289
4:30	0	0	0	0	0	59	42	101	52	2	7	61	129	49	0	178	340
4:45	0	0	0	0	0	50	33	83	37	1	7	45	120	62	0	182	310
Hour Total	0	0	0	0	0	203	138	341	171	3	31	205	506	203	0	709	1255
5:00pm	0	0	0	0	0	55	32	87	43	1	8	52	117	66	0	183	322
5:15	0	0	0	0	0	67	26	93	49	1	10	60	118	46	0	164	317
5:30	0	0	0	0	0	47	32	79	46	1	4	51	118	49	0	167	297
5:45	0	0	0	0	0	48	30	78	49	1	8	58	126	49	0	175	311
Hour Total	0	0	0	0	0	217	120	337	187	4	30	221	479	210	0	689	1247
Grand	0	0	0	0	0	420	258	678	358	7	61	426	985	413	0	1398	2502
% of Total	0.0%	0.0%	0.0%		0.0%	16.8%	10.3%		14.3%	.3%	2.4%		39.4%	16.5%	0.0%		
Apprch %								27.1%				17.0%				55.9%	
% of Apprch	0.0%	0.0%	0.0%		0.0%	61.9%	38.1%		84.0%	1.6%	14.3%		70.5%	29.5%	0.0%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	SR 5 NORTH BOUND ON RAM	04:30pm	.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Westbound	DOWNING AVENUE		.901	0	231	133	0	364	.0	63.4	36.5	.0
Northbound	SR 5 NORTH BOUND OFF RA		.893	181	5	32	0	218	83.0	2.2	14.6	.0
Eastbound			.966	484	223	0	0	707	68.4	31.5	.0	.0

SR 5 NORTH BOUND ON RAMP

0	0	0	484
			5
			133
			=====
			622

Inbound	0
Outbound	622
Total	622

133

181
412 231
0

484

231

Inbound 707
Outbound 412
Total 1119

223

Inbound 364
Outbound 255
Total 619

0

0

0

223 255

32

DOWNING AVENUE

Inbound	218
Outbound	0
Total	218

0	181	5	32
0			
0			
=====			
0			

SR 5 NORTH BOUND OFF RAMP

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	TURNPIKE ROAD Southbound				DOWNING AVENUE Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	2	0	9	11	0	26	2	28	9	1	0	10	10	19	22	51	100
7:15	1	2	11	14	2	20	3	25	13	1	0	14	10	20	17	47	100
7:30	5	2	9	16	1	32	1	34	18	2	0	20	10	29	41	80	150
7:45	6	2	12	20	2	32	4	38	20	3	1	24	16	33	34	83	165
Hour Total	14	6	41	61	5	110	10	125	60	7	1	68	46	101	114	261	515
8:00am	9	1	3	13	2	40	6	48	5	0	1	6	12	46	21	79	146
8:15	6	3	10	19	5	65	3	73	12	0	0	12	13	57	18	88	192
8:30	2	1	9	12	3	21	4	28	11	0	0	11	8	23	9	40	91
8:45	2	0	6	8	0	24	0	24	7	1	0	8	14	20	9	43	83
Hour Total	19	5	28	52	10	150	13	173	35	1	1	37	47	146	57	250	512
Grand	33	11	69	113	15	260	23	298	95	8	2	105	93	247	171	511	1027
% of Total	3.2%	1.1%	6.7%		1.5%	25.3%	2.2%		9.3%	.8%	.2%		9.1%	24.1%	16.7%		
Apprch %				11.0%				29.0%				10.2%				49.8%	
% of Apprch	29.2%	9.7%	61.1%		5.0%	87.2%	7.7%		90.5%	7.6%	1.9%		18.2%	48.3%	33.5%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	TURNPIKE ROAD	07:30am	.850	26	8	34	0	68	38.2	11.7	50.0	.0
Westbound	DOWNING AVENUE		.661	10	169	14	0	193	5.1	87.5	7.2	.0
Northbound			.646	55	5	2	0	62	88.7	8.0	3.2	.0
Eastbound			.938	51	165	114	0	330	15.4	50.0	34.5	.0

TURNPIKE ROAD

34 | 8 | 26 ‖ 51
5
14
=====
70

Inbound 68
Outbound 70
Total 138

14

55
258 169
34

51

169

Inbound 330
Outbound 258
Total 588

165

Inbound 193
Outbound 193 10
Total 386

114

26
165 193
2

DOWNING AVENUE

Inbound 62
Outbound 132
Total 194

10 ‖ 55 | 5 | 2
8
114
=====
132

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	TURNPIKE ROAD Southbound				DOWNING AVENUE Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
4:00pm	4	3	20	27	0	37	7	44	23	3	0	26	14	29	7	50	147
4:15	8	2	20	30	0	40	5	45	17	1	1	19	12	30	17	59	153
4:30	3	1	19	23	0	43	2	45	39	3	0	42	12	23	21	56	166
4:45	4	4	12	20	0	37	2	39	34	1	1	36	13	35	21	69	164
Hour Total	19	10	71	100	0	157	16	173	113	8	2	123	51	117	66	234	630
5:00pm	1	2	16	19	0	44	3	47	28	0	2	30	13	39	22	74	170
5:15	3	4	18	25	1	50	1	52	25	1	1	27	14	30	12	56	160
5:30	2	3	20	25	1	31	1	33	28	2	0	30	11	27	15	53	141
5:45	0	1	12	13	0	37	2	39	29	2	0	31	10	36	11	57	140
Hour Total	6	10	66	82	2	162	7	171	110	5	3	118	48	132	60	240	611
Grand	25	20	137	182	2	319	23	344	223	13	5	241	99	249	126	474	1241
% of Total	2.0%	1.6%	11.0%		.2%	25.7%	1.9%		18.0%	1.0%	.4%		8.0%	20.1%	10.2%		
Apprch %				14.7%				27.7%				19.4%				38.2%	
% of Apprch	13.7%	11.0%	75.3%		.6%	92.7%	6.7%		92.5%	5.4%	2.1%		20.9%	52.5%	26.6%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	TURNPIKE ROAD	04:30pm	.870	11	11	65	0	87	12.6	12.6	74.7	.0
Westbound	DOWNING AVENUE		.880	1	174	8	0	183	.5	95.0	4.3	.0
Northbound			.804	126	5	4	0	135	93.3	3.7	2.9	.0
Eastbound			.861	52	127	76	0	255	20.3	49.8	29.8	.0

TURNPIKE ROAD

65 | 11 | 11 ‖ 52
5
8
=====
65

Inbound 87
Outbound 65
Total 152

126
365 174
65
52

8
174

Inbound 255
Outbound 365
127 Total 620

Inbound 183
Outbound 142 1
Total 325

76

11
127 142
4

Inbound 135
Outbound 88
Total 223

1 ‖ 126 | 5 | 4
11
76
=====
88

DOWNING AVENUE

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	MCDOUGALD BLVD. Southbound				WILLIAM MOSS BLVD. Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	0	9	2	11	2	25	2	29	3	9	4	16	4	13	1	18	74
7:15	0	3	5	8	9	28	0	37	0	8	10	18	9	16	1	26	89
7:30	1	15	13	29	12	38	6	56	2	12	3	17	2	14	1	17	119
7:45	6	22	11	39	12	35	14	61	3	21	9	33	2	13	1	16	149
Hour Total	7	49	31	87	35	126	22	183	8	50	26	84	17	56	4	77	431
8:00am	12	31	18	61	23	41	22	86	0	35	21	56	12	12	2	26	229
8:15	11	28	17	56	14	29	8	51	2	20	12	34	9	12	0	21	162
8:30	15	40	11	66	7	27	17	51	0	18	5	23	3	11	1	15	155
8:45	4	13	10	27	6	30	1	37	2	11	3	16	2	13	2	17	97
Hour Total	42	112	56	210	50	127	48	225	4	84	41	129	26	48	5	79	643
Grand	49	161	87	297	85	253	70	408	12	134	67	213	43	104	9	156	1074
% of Total	4.6%	15.0%	8.1%		7.9%	23.6%	6.5%		1.1%	12.5%	6.2%		4.0%	9.7%	.8%		
Apprch %				27.7%				38.0%				19.8%				14.5%	
% of Apprch	16.5%	54.2%	29.3%		20.8%	62.0%	17.2%		5.6%	62.9%	31.5%		27.6%	66.7%	5.8%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	MCDOUGALD BLVD.	07:45am	.841	44	121	57	0	222	19.8	54.5	25.6	.0
Westbound	WILLIAM MOSS BLVD.		.724	56	132	61	0	249	22.4	53.0	24.4	.0
Northbound			.652	5	94	47	0	146	3.4	64.3	32.1	.0
Eastbound			.750	26	48	4	0	78	33.3	61.5	5.1	.0

MCDOUGALD BLVD.

57 | 121 | 44 ‖ 26
94
61
=====
181

Inbound 222
Outbound 181
Total 403

5
194 132
57
26

Inbound 78
Outbound 194
48 Total 272

4

Inbound 146
Outbound 181
Total 327

56 ‖ 5 | 94 | 47
121
4
=====
181

61
132

Inbound 249
Outbound 139 56
Total 388

44
48 139
47

WILLIAM MOSS BLVD.

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	MCDOUGALD BLVD. Southbound				WILLIAM MOSS BLVD. Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
4:00pm	1	11	9	21	5	38	1	44	3	11	13	27	4	28	4	36	128
4:15	0	6	11	17	8	33	2	43	1	16	11	28	5	37	5	47	135
4:30	1	12	8	21	6	34	2	42	1	13	10	24	7	37	3	47	134
4:45	2	12	13	27	5	29	4	38	0	15	16	31	5	41	2	48	144
Hour Total	4	41	41	86	24	134	9	167	5	55	50	110	21	143	14	178	541
5:00pm	3	13	8	24	9	34	1	44	4	17	23	44	5	30	1	36	148
5:15	2	5	8	15	8	34	1	43	2	22	17	41	13	45	6	64	163
5:30	1	11	9	21	6	28	1	35	3	31	21	55	6	32	5	43	154
5:45	2	11	9	22	9	32	3	44	0	14	14	28	6	36	6	48	142
Hour Total	8	40	34	82	32	128	6	166	9	84	75	168	30	143	18	191	607
Grand	12	81	75	168	56	262	15	333	14	139	125	278	51	286	32	369	1148
% of Total	1.0%	7.1%	6.5%		4.9%	22.8%	1.3%		1.2%	12.1%	10.9%		4.4%	24.9%	2.8%		
Apprch %				14.6%				29.0%				24.2%				32.1%	
% of Apprch	7.1%	48.2%	44.6%		16.8%	78.7%	4.5%		5.0%	50.0%	45.0%		13.8%	77.5%	8.7%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	MCDOUGALD BLVD.	04:45pm	.806	8	41	38	0	87	9.1	47.1	43.6	.0
Westbound	WILLIAM MOSS BLVD.		.909	28	125	7	0	160	17.5	78.1	4.3	.0
Northbound			.777	9	85	77	0	171	5.2	49.7	45.0	.0
Eastbound			.746	29	148	14	0	191	15.1	77.4	7.3	.0

MCDOUGALD BLVD.

38 | 41 | 8 ‖ 29
85
7
=====
121

Inbound 87
Outbound 121
Total 208

7

9
172 125
38

125

29

Inbound 191
Outbound 172
148 Total 363

Inbound 160
Outbound 233 28
Total 393

14

8
148 233
77

WILLIAM MOSS BLVD.

Inbound 171
Outbound 83
Total 254

28 ‖ 9 | 85 | 77
41
14
=====
83

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	MANTHEY ROAD Southbound				Westbound				Northbound				WILLIAM MOSS BLVD. Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	0	17	5	22	0	0	0	0	10	11	0	21	17	0	17	34	77
7:15	0	16	10	26	0	0	0	0	12	17	0	29	25	0	19	44	99
7:30	0	20	7	27	0	0	0	0	16	14	0	30	34	0	23	57	114
7:45	0	24	8	32	0	0	0	0	4	16	0	20	37	0	21	58	110
Hour Total	0	77	30	107	0	0	0	0	42	58	0	100	113	0	80	193	400
8:00am	0	14	6	20	0	0	0	0	9	15	0	24	40	0	15	55	99
8:15	0	18	11	29	0	0	0	0	9	17	0	26	32	0	19	51	106
8:30	0	22	8	30	0	0	0	0	10	20	0	30	26	0	16	42	102
8:45	0	15	15	30	0	0	0	0	5	20	0	25	36	0	11	47	102
Hour Total	0	69	40	109	0	0	0	0	33	72	0	105	134	0	61	195	409
Grand	0	146	70	216	0	0	0	0	75	130	0	205	247	0	141	388	809
% of Total	0.0%	18.0%	8.7%		0.0%	0.0%	0.0%		9.3%	16.1%	0.0%		30.5%	0.0%	17.4%		
Apprch %				26.7%								25.3%				48.0%	
% of Apprch	0.0%	67.6%	32.4%		0.0%	0.0%	0.0%		36.6%	63.4%	0.0%		63.7%	0.0%	36.3%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 12/15/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	MANTHEY ROAD	07:30am	.844	0	76	32	0	108	.0	70.3	29.6	.0
Westbound			.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Northbound			.833	38	62	0	0	100	38.0	62.0	.0	.0
Eastbound	WILLIAM MOSS BLVD.		.953	143	0	78	0	221	64.7	.0	35.2	.0

MANTHEY ROAD

32	76	0	143
			62
			0
			=====
			205

Inbound	108
Outbound	205
Total	313

WILLIAM MOSS BLVD.

	38	
70	0	
	32	
	143	

Inbound	221	
Outbound	70	
Total	291	

		0
0		
		0

Inbound	0	
Outbound	0	0
Total	0	

		0
		0
		0
		0
78		

Inbound	100		
Outbound	154		
Total	254		
0	38	62	0
76			
78			
=====			
154			

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	MANTHEY ROAD Southbound				Westbound				Northbound				WILLIAM MOSS BLVD. Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
4:00pm	0	31	42	73	0	0	0	0	19	45	0	64	42	0	15	57	194
4:15	0	36	38	74	0	0	0	0	21	41	0	62	38	0	13	51	187
4:30	0	23	38	61	0	0	0	0	15	46	0	61	34	0	14	48	170
4:45	0	20	37	57	0	0	0	0	24	45	0	69	41	0	9	50	176
Hour Total	0	110	155	265	0	0	0	0	79	177	0	256	155	0	51	206	727
5:00pm	0	35	36	71	0	0	0	0	11	46	0	57	35	0	18	53	181
5:15	0	26	46	72	0	0	0	0	28	32	0	60	36	0	12	48	180
5:30	0	34	33	67	0	0	0	0	24	34	0	58	39	0	7	46	171
5:45	0	36	45	81	0	0	0	0	12	42	0	54	39	0	6	45	180
Hour Total	0	131	160	291	0	0	0	0	75	154	0	229	149	0	43	192	712
Grand	0	241	315	556	0	0	0	0	154	331	0	485	304	0	94	398	1439
% of Total	0.0%	16.7%	21.9%		0.0%	0.0%	0.0%		10.7%	23.0%	0.0%		21.1%	0.0%	6.5%		
Apprch %				38.6%								33.7%				27.7%	
% of Apprch	0.0%	43.3%	56.7%		0.0%	0.0%	0.0%		31.8%	68.2%	0.0%		76.4%	0.0%	23.6%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 12/15/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	MANTHEY ROAD	04:00pm	.895	0	110	155	0	265	.0	41.5	58.4	.0
Westbound			.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Northbound			.928	79	177	0	0	256	30.8	69.1	.0	.0
Eastbound	WILLIAM MOSS BLVD.		.904	155	0	51	0	206	75.2	.0	24.7	.0

MANTHEY ROAD

155 | 110 | 0 ‖ 155
177
0
=====
332

Inbound 265
Outbound 332
Total 597

WILLIAM MOSS BLVD.

79
234 0
155
=====
155

Inbound 206
Outbound 234
0 Total 440

51

0

0

Inbound 0
Outbound 0 0
Total 0

0
0 0
0

Inbound 256
Outbound 161
Total 417

0 ‖ 79 | 177 | 0
110
51
=====
161

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	MCDOUGALD BLVD.				FRENCH CAMP ROAD												
	Southbound				Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	17	0	3	20	0	43	7	50	0	0	0	0	1	80	0	81	151
7:15	22	0	7	29	0	56	6	62	0	0	0	0	8	75	0	83	174
7:30	28	0	3	31	0	35	6	41	0	0	0	0	4	102	0	106	178
7:45	28	0	0	28	0	38	10	48	0	0	0	0	1	67	0	68	144
Hour Total	95	0	13	108	0	172	29	201	0	0	0	0	14	324	0	338	647
8:00am	22	0	1	23	0	40	5	45	0	0	0	0	2	62	0	64	132
8:15	22	0	5	27	0	21	10	31	0	0	0	0	1	51	0	52	110
8:30	21	0	1	22	0	23	8	31	0	0	0	0	3	61	0	64	117
8:45	20	0	2	22	0	23	6	29	0	0	0	0	1	56	0	57	108
Hour Total	85	0	9	94	0	107	29	136	0	0	0	0	7	230	0	237	467
Grand	180	0	22	202	0	279	58	337	0	0	0	0	21	554	0	575	1114
% of Total	16.2%	0.0%	2.0%		0.0%	25.0%	5.2%		0.0%	0.0%	0.0%		1.9%	49.7%	0.0%		
Apprch %				18.1%				30.3%								51.6%	
% of Apprch	89.1%	0.0%	10.9%		0.0%	82.8%	17.2%		0.0%	0.0%	0.0%		3.7%	96.3%	0.0%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 12/15/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	MCDOUGALD BLVD.	07:00am	.871	95	0	13	0	108	87.9	.0	12.0	.0
Westbound	FRENCH CAMP ROAD		.810	0	172	29	0	201	.0	85.5	14.4	.0
Northbound			.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Eastbound			.797	14	324	0	0	338	4.1	95.8	.0	.0

MCDOUGALD BLVD.

13	0	95	14
			0
			29
			=====
			43

Inbound	108
Outbound	43
Total	151

29

0
185 172
13

14

172

Inbound	338
Outbound	185
Total	523

324

Inbound	201	
Outbound	419	0
Total	620	

95
324 419
0

0

FRENCH CAMP ROAD

Inbound	0
Outbound	0
Total	0

0	0	0	0
0			
0			
=====			
0			

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	MCDOUGALD BLVD. Southbound				FRENCH CAMP ROAD Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
4:00pm	5	0	3	8	0	69	13	82	0	0	0	0	3	54	0	57	147
4:15	17	0	2	19	0	38	13	51	0	0	0	0	5	61	0	66	136
4:30	18	0	0	18	0	55	12	67	0	0	0	0	2	51	0	53	138
4:45	6	0	1	7	0	64	18	82	0	0	0	0	1	45	0	46	135
Hour Total	46	0	6	52	0	226	56	282	0	0	0	0	11	211	0	222	556
5:00pm	19	0	2	21	0	59	9	68	0	0	0	0	0	48	0	48	137
5:15	11	0	1	12	0	64	19	83	0	0	0	0	3	48	0	51	146
5:30	15	0	2	17	0	77	18	95	0	0	0	0	3	38	0	41	153
5:45	19	0	3	22	0	76	18	94	0	0	0	0	5	42	0	47	163
Hour Total	64	0	8	72	0	276	64	340	0	0	0	0	11	176	0	187	599
Grand	110	0	14	124	0	502	120	622	0	0	0	0	22	387	0	409	1155
% of Total	9.5%	0.0%	1.2%		0.0%	43.5%	10.4%		0.0%	0.0%	0.0%		1.9%	33.5%	0.0%		
Apprch %				10.7%				53.9%								35.4%	
% of Apprch	88.7%	0.0%	11.3%		0.0%	80.7%	19.3%		0.0%	0.0%	0.0%		5.4%	94.6%	0.0%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 12/15/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	MCDOUGALD BLVD.	05:00pm	.818	64	0	8	0	72	88.8	.0	11.1	.0
Westbound	FRENCH CAMP ROAD		.895	0	276	64	0	340	.0	81.1	18.8	.0
Northbound			.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Eastbound			.917	11	176	0	0	187	5.8	94.1	.0	.0

MCDOUGALD BLVD.

8	0	64	11
			0
			64
			=====
			75

Inbound	72
Outbound	75
Total	147

64

0
284 276
8

11

276

Inbound 187
Outbound 284
176 Total 471

Inbound 340
Outbound 240 0
Total 580

0

64
176 240
0

FRENCH CAMP ROAD

Inbound	0
Outbound	0
Total	0

0	0	0	0
0			
0			
=====			
0			

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	MANTHEY ROAD Southbound				FRENCH CAMP ROAD Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	42	9	0	51	44	41	27	112	2	7	19	28	0	93	3	96	287
7:15	36	5	2	43	45	55	25	125	2	8	26	36	3	97	4	104	308
7:30	48	15	2	65	71	41	30	142	5	6	30	41	2	112	5	119	367
7:45	43	14	2	59	66	61	30	157	4	7	30	41	2	74	5	81	338
Hour Total	169	43	6	218	226	198	112	536	13	28	105	146	7	376	17	400	1300
8:00am	27	12	2	41	75	37	23	135	4	9	18	31	1	79	7	87	294
8:15	37	8	1	46	68	24	22	114	2	8	19	29	2	81	4	87	276
8:30	29	21	0	50	51	29	14	94	2	9	22	33	1	62	6	69	246
8:45	19	13	4	36	60	27	21	108	1	7	22	30	2	61	3	66	240
Hour Total	112	54	7	173	254	117	80	451	9	33	81	123	6	283	20	309	1056
Grand	281	97	13	391	480	315	192	987	22	61	186	269	13	659	37	709	2356
% of Total	11.9%	4.1%	.6%		20.4%	13.4%	8.1%		.9%	2.6%	7.9%		.6%	28.0%	1.6%		
Apprch %				16.6%				41.9%				11.4%				30.1%	
% of Apprch	71.9%	24.8%	3.3%		48.6%	31.9%	19.5%		8.2%	22.7%	69.1%		1.8%	92.9%	5.2%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	MANTHEY ROAD	07:15am	.800	154	46	8	0	208	74.0	22.1	3.8	.0
Westbound	FRENCH CAMP ROAD		.890	257	194	108	0	559	45.9	34.7	19.3	.0
Northbound			.909	15	30	104	0	149	10.0	20.1	69.7	.0
Eastbound			.821	8	362	21	0	391	2.0	92.5	5.3	.0

MANTHEY ROAD

8 | 46 | 154 ‖ 8
30
108
=====
146

Inbound 208
Outbound 146
Total 354

108

15
217 194
8

194

8

Inbound 391
Outbound 217
362 Total 608

Inbound 559
Outbound 620 257
Total 1179

21

154
362 620
104

FRENCH CAMP ROAD

Inbound 149
Outbound 324
Total 473

257 ‖ 15 | 30 | 104
46
21
=====
324

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	MANTHEY ROAD Southbound				FRENCH CAMP ROAD Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
4:00pm	30	12	2	44	24	82	40	146	6	22	72	100	3	50	3	56	346
4:15	29	14	6	49	32	60	44	136	6	21	56	83	1	68	1	70	338
4:30	26	8	2	36	16	70	50	136	6	23	112	141	3	54	3	60	373
4:45	18	9	0	27	24	71	56	151	8	18	58	84	5	49	3	57	319
Hour Total	103	43	10	156	96	283	190	569	26	84	298	408	12	221	10	243	1376
5:00pm	30	20	3	53	24	101	36	161	10	29	56	95	5	55	2	62	371
5:15	19	16	3	38	13	89	64	166	6	12	42	60	3	45	1	49	313
5:30	19	19	4	42	27	74	44	145	4	14	30	48	4	30	6	40	275
5:45	21	17	4	42	28	79	57	164	5	15	20	40	4	44	2	50	296
Hour Total	89	72	14	175	92	343	201	636	25	70	148	243	16	174	11	201	1255
Grand	192	115	24	331	188	626	391	1205	51	154	446	651	28	395	21	444	2631
% of Total	7.3%	4.4%	.9%		7.1%	23.8%	14.9%		1.9%	5.9%	17.0%		1.1%	15.0%	.8%		
Apprch %				12.6%				45.8%				24.7%				16.9%	
% of Apprch	58.0%	34.7%	7.3%		15.6%	52.0%	32.4%		7.8%	23.7%	68.5%		6.3%	89.0%	4.7%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	MANTHEY ROAD	04:15pm	.778	103	51	11	0	165	62.4	30.9	6.6	.0
Westbound	FRENCH CAMP ROAD		.907	96	302	186	0	584	16.4	51.7	31.8	.0
Northbound			.715	30	91	282	0	403	7.4	22.5	69.9	.0
Eastbound			.889	14	226	9	0	249	5.6	90.7	3.6	.0

MANTHEY ROAD

11 | 51 | 103 ‖ 14
91
186
=====
291

Inbound 165
Outbound 291
Total 456

186

30
343 302
11

14

302

Inbound 249
Outbound 343
226 Total 592

Inbound 584
Outbound 611 96
Total 1195

9

103
226 611
282

FRENCH CAMP ROAD

Inbound 403
Outbound 156
Total 559

96 ‖ 30 | 91 | 282
51
9
=====
156

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	SR 5 SOUTH BOUND OFF RAMP				FRENCH CAMP ROAD				SR 5 SOUTH BOUND ON RAMP								
	Southbound				Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	49	0	52	101	11	60	0	71	0	0	0	0	0	102	52	154	326
7:15	61	1	61	123	15	64	0	79	0	0	0	0	0	98	61	159	361
7:30	69	0	82	151	17	60	0	77	0	0	0	0	0	115	75	190	418
7:45	85	0	94	179	21	63	0	84	0	0	0	0	0	92	55	147	410
Hour Total	264	1	289	554	64	247	0	311	0	0	0	0	0	407	243	650	1515
8:00am	57	2	82	141	15	53	0	68	0	0	0	0	0	70	54	124	333
8:15	51	0	73	124	10	41	0	51	0	0	0	0	0	78	59	137	312
8:30	52	0	56	108	12	38	0	50	0	0	0	0	0	65	48	113	271
8:45	45	0	64	109	25	44	0	69	0	0	0	0	0	66	36	102	280
Hour Total	205	2	275	482	62	176	0	238	0	0	0	0	0	279	197	476	1196
Grand	469	3	564	1036	126	423	0	549	0	0	0	0	0	686	440	1126	2711
% of Total	17.3%	.1%	20.8%		4.6%	15.6%	0.0%		0.0%	0.0%	0.0%		0.0%	25.3%	16.2%		
Apprch %				38.2%				20.3%								41.5%	
% of Apprch	45.3%	.3%	54.4%		23.0%	77.0%	0.0%		0.0%	0.0%	0.0%		0.0%	60.9%	39.1%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	SR 5 SOUTH BOUND OFF RA	07:15am	.830	272	3	319	0	594	45.7	.5	53.7	.0
Westbound	FRENCH CAMP ROAD		.917	68	240	0	0	308	22.0	77.9	.0	.0
Northbound	SR 5 SOUTH BOUND ON RAM		.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Eastbound			.816	0	375	245	0	620	.0	60.4	39.5	.0

SR 5 SOUTH BOUND OFF RAMP

319	3	272	0
289	1	265	0
			0
			=====
			0

Inbound	594
Outbound	0
Total	594

0
0

0
559 240
319

0 0

240
247

Inbound 620
Outbound 559
375 Total 1179
407

Inbound 308
Outbound 647 68
Total 955 64

245 243

272
375 647
0

FRENCH CAMP ROAD

Inbound	0
Outbound	316
Total	316

68 0 0 0
3 0 0 0
245
=====
316

SR 5 SOUTH BOUND ON RAMP

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	SR 5 SOUTH BOUND OFF RAMP				FRENCH CAMP ROAD				SR 5 SOUTH BOUND ON RAMP								
	Southbound				Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
4:00pm	40	1	44	85	15	102	0	117	0	0	0	0	0	118	34	152	354
4:15	53	0	44	97	10	93	0	103	0	0	0	0	0	121	32	153	353
4:30	56	0	30	86	14	106	0	120	0	0	0	0	0	159	33	192	398
4:45	53	1	40	94	10	111	0	121	0	0	0	0	0	104	20	124	339
Hour Total	202	2	158	362	49	412	0	461	0	0	0	0	0	502	119	621	1444
5:00pm	48	0	53	101	24	108	0	132	0	0	0	0	0	124	17	141	374
5:15	52	0	57	109	19	109	0	128	0	0	0	0	0	82	23	105	342
5:30	39	0	52	91	14	93	0	107	0	0	0	0	0	66	13	79	277
5:45	25	0	63	88	21	101	0	122	0	0	0	0	0	60	25	85	295
Hour Total	164	0	225	389	78	411	0	489	0	0	0	0	0	332	78	410	1288
Grand	366	2	383	751	127	823	0	950	0	0	0	0	0	834	197	1031	2732
% of Total	13.4%	.1%	14.0%		4.6%	30.1%	0.0%		0.0%	0.0%	0.0%		0.0%	30.5%	7.2%		
Apprch %				27.5%				34.8%								37.7%	
% of Apprch	48.7%	.3%	51.0%		13.4%	86.6%	0.0%		0.0%	0.0%	0.0%		0.0%	80.9%	19.1%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	SR 5 SOUTH BOUND OFF RA	04:15pm	.936	210	1	167	0	378	55.5	.2	44.1	.0
Westbound	FRENCH CAMP ROAD		.902	58	418	0	0	476	12.1	87.8	.0	.0
Northbound	SR 5 SOUTH BOUND ON RAM		.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Eastbound			.794	0	508	102	0	610	.0	83.2	16.7	.0

SR 5 SOUTH BOUND OFF RAMP

167	1	210	0
180	1	209	0
			0
			=====
			0

Inbound	378
Outbound	0
Total	378

0

0
585 418
167

0

~~418~~ 434

501

Inbound ~~476~~

Outbound ~~718~~ 678 ~~58~~

Total 1194 67

Inbound 610
Outbound 585
Total 1195

508
469

102
93

210
508 718
0

FRENCH CAMP ROAD

Inbound	0
Outbound	161
Total	161

58	0	0	0
1			
102			
=====			
161			

SR 5 SOUTH BOUND ON RAMP

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	SR 5 NORTH BOUND ON RAMP				FRENCH CAMP ROAD				SR 5 NORTH BOUND OFF RAMP								
	Southbound				Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	0	0	0	0	0	46	52	98	25	0	17	42	45	106	0	151	291
7:15	0	0	0	0	0	53	40	93	26	0	26	52	54	105	0	159	304
7:30	0	0	0	0	0	48	42	90	29	0	19	48	69	115	0	184	322
7:45	0	0	0	0	0	52	75	127	32	0	21	53	59	119	0	178	358
Hour Total	0	0	0	0	0	199	209	408	112	0	83	195	227	445	0	672	1275
8:00am	0	0	0	0	0	48	42	90	20	0	24	44	37	90	0	127	261
8:15	0	0	0	0	0	37	37	74	14	0	14	28	43	85	0	128	230
8:30	0	0	0	0	0	31	33	64	19	0	23	42	36	81	0	117	223
8:45	0	0	0	0	0	49	50	99	20	0	18	38	38	73	0	111	248
Hour Total	0	0	0	0	0	165	162	327	73	0	79	152	154	329	0	483	962
Grand	0	0	0	0	0	364	371	735	185	0	162	347	381	774	0	1155	2237
% of Total	0.0%	0.0%	0.0%		0.0%	16.3%	16.6%		8.3%	0.0%	7.2%		17.0%	34.6%	0.0%		
Apprch %								32.9%				15.5%				51.6%	
% of Apprch	0.0%	0.0%	0.0%		0.0%	49.5%	50.5%		53.3%	0.0%	46.7%		33.0%	67.0%	0.0%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	SR 5 NORTH BOUND ON RAM	07:00am	.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Westbound	FRENCH CAMP ROAD		.803	0	199	209	0	408	.0	48.7	51.2	.0
Northbound	SR 5 NORTH BOUND OFF RA		.920	112	0	83	0	195	57.4	.0	42.5	.0
Eastbound			.913	227	445	0	0	672	33.7	66.2	.0	.0

SR 5 NORTH BOUND ON RAMP

0	0	0	227
			0
			209
			=====
			436

Inbound	0
Outbound	436
Total	436

209

112
311 199
0

227

199

Inbound 672
Outbound 311
445 Total 983

Inbound 408
Outbound 528 0
Total 936

0

0
445 528
83

FRENCH CAMP ROAD

Inbound	195
Outbound	0
Total	195

0	112	0	83
0			
0			
=====			
0			

SR 5 NORTH BOUND OFF RAMP

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	SR 5 NORTH BOUND ON RAMP Southbound				FRENCH CAMP ROAD Westbound				SR 5 NORTH BOUND OFF RAMP Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
4:00pm	0	0	0	0	0	65	72	137	52	3	18	73	78	80	0	158	368
4:15	0	0	0	0	0	53	62	115	51	0	27	78	75	99	0	174	367
4:30	0	0	0	0	0	84	84	168	36	0	15	51	121	94	0	215	434
4:45	0	0	0	0	0	58	67	125	63	1	22	86	82	75	0	157	368
Hour Total	0	0	0	0	0	260	285	545	202	4	82	288	356	348	0	704	1537
5:00pm	0	0	0	0	0	62	70	132	70	0	20	90	90	82	0	172	394
5:15	0	0	0	0	0	69	75	144	59	0	33	92	62	72	0	134	370
5:30	0	0	0	0	0	48	58	106	59	0	19	78	47	57	0	104	288
5:45	0	0	0	0	0	61	47	108	61	0	17	78	34	51	0	85	271
Hour Total	0	0	0	0	0	240	250	490	249	0	89	338	233	262	0	495	1323
Grand	0	0	0	0	0	500	535	1035	451	4	171	626	589	610	0	1199	2860
% of Total	0.0%	0.0%	0.0%		0.0%	17.5%	18.7%		15.8%	.1%	6.0%		20.6%	21.3%	0.0%		
Apprch %								36.2%				21.9%				41.9%	
% of Apprch	0.0%	0.0%	0.0%		0.0%	48.3%	51.7%		72.0%	.6%	27.3%		49.1%	50.9%	0.0%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	SR 5 NORTH BOUND ON RAM	04:30pm	.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Westbound	FRENCH CAMP ROAD		.847	0	273	296	0	569	.0	47.9	52.0	.0
Northbound	SR 5 NORTH BOUND OFF RA		.867	228	1	90	0	319	71.4	.3	28.2	.0
Eastbound			.788	355	323	0	0	678	52.3	47.6	.0	.0

SR 5 NORTH BOUND ON RAMP

0	0	0	355
			1
			296
			=====
			652

Inbound	0
Outbound	652
Total	652

296

228
501 273
0

355

273

	Inbound	678
	Outbound	501
323	Total	1179

Inbound	569	
Outbound	413	0
Total	982	

0

0
323 413
90

FRENCH CAMP ROAD

Inbound	319
Outbound	0
Total	319

0	228	1	90
0			
0			
=====			
0			

SR 5 NORTH BOUND OFF RAMP

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	VAL DERVIN PARKWAY Southbound				FRENCH CAMP ROAD Westbound				DRIVEWAY Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	6	4	12	22	2	78	20	100	8	2	1	11	31	70	22	123	256
7:15	9	2	2	13	2	81	16	99	9	0	0	9	41	61	29	131	252
7:30	4	0	14	18	2	69	13	84	7	0	6	13	38	68	28	134	249
7:45	2	2	11	15	5	101	18	124	15	1	1	17	53	71	16	140	296
Hour Total	21	8	39	68	11	329	67	407	39	3	8	50	163	270	95	528	1053
8:00am	7	1	17	25	3	61	12	76	12	0	1	13	33	65	16	114	228
8:15	3	1	9	13	4	55	7	66	10	0	1	11	22	63	14	99	189
8:30	1	1	7	9	3	54	7	64	3	1	0	4	25	60	19	104	181
8:45	5	0	7	12	2	80	5	87	11	0	0	11	16	49	26	91	201
Hour Total	16	3	40	59	12	250	31	293	36	1	2	39	96	237	75	408	799
Grand	37	11	79	127	23	579	98	700	75	4	10	89	259	507	170	936	1852
% of Total	2.0%	.6%	4.3%		1.2%	31.3%	5.3%		4.0%	.2%	.5%		14.0%	27.4%	9.2%		
Apprch %				6.9%				37.8%				4.8%				50.5%	
% of Apprch	29.1%	8.7%	62.2%		3.3%	82.7%	14.0%		84.3%	4.5%	11.2%		27.7%	54.2%	18.2%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	VAL DERVIN PARKWAY	07:00am	.773	21	8	39	0	68	30.8	11.7	57.3	.0
Westbound	FRENCH CAMP ROAD		.821	11	329	67	0	407	2.7	80.8	16.4	.0
Northbound	DRIVEWAY		.735	39	3	8	0	50	78.0	6.0	16.0	.0
Eastbound			.943	163	270	95	0	528	30.8	51.1	17.9	.0

VAL DERVIN PARKWAY

39 | 8 | 21 ‖ 163
3
67
=====
233

Inbound 68
Outbound 233
Total 301

67

39
407 329
39

163

329

Inbound 528
Outbound 407
Total 935

270

Inbound 407
Outbound 299 11
Total 706

95

21
270 299
8

Inbound 50
Outbound 114
Total 164

11 ‖ 39 | 3 | 8
8
95
=====
114

DRIVEWAY

FRENCH CAMP ROAD

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CITY OF STOCKTON

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	VAL DERVIN PARKWAY Southbound				FRENCH CAMP ROAD Westbound				DRIVEWAY Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
4:00pm	23	1	39	63	1	84	7	92	14	1	2	17	12	72	14	98	270
4:15	14	1	22	37	0	82	4	86	11	0	2	13	17	85	24	126	262
4:30	14	2	55	71	0	96	3	99	17	0	2	19	14	78	17	109	298
4:45	10	0	30	40	2	81	5	88	14	0	5	19	17	60	20	97	244
Hour Total	61	4	146	211	3	343	19	365	56	1	11	68	60	295	75	430	1074
5:00pm	18	0	41	59	1	82	1	84	9	0	0	9	14	67	22	103	255
5:15	9	3	29	41	2	100	3	105	15	1	2	18	16	70	18	104	268
5:30	7	1	26	34	2	67	2	71	13	0	1	14	9	45	21	75	194
5:45	7	1	15	23	0	90	2	92	3	0	2	5	10	44	15	69	189
Hour Total	41	5	111	157	5	339	8	352	40	1	5	46	49	226	76	351	906
Grand	102	9	257	368	8	682	27	717	96	2	16	114	109	521	151	781	1980
% of Total	5.2%	.5%	13.0%		.4%	34.4%	1.4%		4.8%	.1%	.8%		5.5%	26.3%	7.6%		
Apprch %				18.6%				36.2%				5.8%				39.4%	
% of Apprch	27.7%	2.4%	69.8%		1.1%	95.1%	3.8%		84.2%	1.8%	14.0%		14.0%	66.7%	19.3%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 12/14/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	VAL DERVIN PARKWAY	04:00pm	.743	61	4	146	0	211	28.9	1.8	69.1	.0
Westbound	FRENCH CAMP ROAD		.922	3	343	19	0	365	.8	93.9	5.2	.0
Northbound	DRIVEWAY		.895	56	1	11	0	68	82.3	1.4	16.1	.0
Eastbound			.853	60	295	75	0	430	13.9	68.6	17.4	.0

VAL DERVIN PARKWAY

146 | 4 | 61 ‖ 60
1
19
=====
80

Inbound 211
Outbound 80
Total 291

56
545 343
146

60

19

343

Inbound 430
Outbound 545
295 Total 975

Inbound 365
Outbound 367 3
Total 732

75

61
295 367
11

FRENCH CAMP ROAD

Inbound 68
Outbound 82
Total 150

3 ‖ 56 | 1 | 11
4
75
=====
82
DRIVEWAY

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	MANTHEY ROAD Southbound				MATHEWS ROAD Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	3	5	1	9	2	69	20	91	0	1	6	7	1	33	7	41	148
7:15	10	0	6	16	1	75	15	91	2	6	4	12	1	30	0	31	150
7:30	10	2	2	14	8	86	25	119	1	7	5	13	0	34	1	35	181
7:45	7	1	4	12	4	125	31	160	5	4	3	12	2	24	1	27	211
Hour Total	30	8	13	51	15	355	91	461	8	18	18	44	4	121	9	134	690
8:00am	8	2	9	19	3	112	25	140	2	3	3	8	1	40	4	45	212
8:15	1	4	4	9	5	74	23	102	5	2	11	18	1	41	5	47	176
8:30	3	2	3	8	8	95	16	119	0	3	7	10	2	47	4	53	190
8:45	10	9	2	21	2	65	11	78	1	6	4	11	4	39	2	45	155
Hour Total	22	17	18	57	18	346	75	439	8	14	25	47	8	167	15	190	733
Grand	52	25	31	108	33	701	166	900	16	32	43	91	12	288	24	324	1423
% of Total	3.7%	1.8%	2.2%		2.3%	49.3%	11.7%		1.1%	2.2%	3.0%		.8%	20.2%	1.7%		
Apprch %				7.6%				63.2%				6.4%				22.8%	
% of Apprch	48.1%	23.1%	28.7%		3.7%	77.9%	18.4%		17.6%	35.2%	47.3%		3.7%	88.9%	7.4%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 12/15/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	MANTHEY ROAD	07:45am	.632	19	9	20	0	48	39.5	18.7	41.6	.0
Westbound	MATHEWS ROAD		.814	20	406	95	0	521	3.8	77.9	18.2	.0
Northbound			.667	12	12	24	0	48	25.0	25.0	50.0	.0
Eastbound			.811	6	152	14	0	172	3.4	88.3	8.1	.0

MANTHEY ROAD

20 | 9 | 19 ‖ 6
12
95
=====
113

Inbound	48
Outbound	113
Total	161

95

12
438 406
20

406

6

	Inbound	172
	Outbound	438
152	Total	610

Inbound	521	
Outbound	195	20
Total	716	

14

19
152 195
24
MATHEWS ROAD

Inbound	48
Outbound	43
Total	91

20 ‖ 12 | 12 | 24
9
14
=====
43

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	MANTHEY ROAD Southbound				MATHEWS ROAD Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
4:00pm	20	12	6	38	11	33	15	59	4	6	6	16	11	128	3	142	255
4:15	18	4	2	24	5	33	14	52	3	8	11	22	7	108	1	116	214
4:30	27	10	4	41	4	39	15	58	1	6	12	19	11	132	3	146	264
4:45	17	5	8	30	7	40	14	61	4	10	8	22	5	118	2	125	238
Hour Total	82	31	20	133	27	145	58	230	12	30	37	79	34	486	9	529	971
5:00pm	19	10	2	31	9	39	15	63	2	11	8	21	5	130	3	138	253
5:15	14	6	4	24	6	44	10	60	4	10	4	18	9	106	2	117	219
5:30	13	3	2	18	5	37	20	62	3	7	14	24	5	108	3	116	220
5:45	14	3	8	25	4	34	18	56	1	5	2	8	6	102	2	110	199
Hour Total	60	22	16	98	24	154	63	241	10	33	28	71	25	446	10	481	891
Grand	142	53	36	231	51	299	121	471	22	63	65	150	59	932	19	1010	1862
% of Total	7.6%	2.8%	1.9%		2.7%	16.1%	6.5%		1.2%	3.4%	3.5%		3.2%	50.1%	1.0%		
Apprch %				12.4%				25.3%				8.1%				54.2%	
% of Apprch	61.5%	22.9%	15.6%		10.8%	63.5%	25.7%		14.7%	42.0%	43.3%		5.8%	92.3%	1.9%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 12/15/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	MANTHEY ROAD	04:30pm	.768	77	31	18	0	126	61.1	24.6	14.2	.0
Westbound	MATHEWS ROAD		.960	26	162	54	0	242	10.7	66.9	22.3	.0
Northbound			.909	11	37	32	0	80	13.7	46.2	40.0	.0
Eastbound			.901	30	486	10	0	526	5.7	92.3	1.9	.0

MANTHEY ROAD

18 | 31 | 77 ‖ 30
37
54
=====
121

Inbound 126
Outbound 121
Total 247

54

11
191 162
18

30

162

Inbound 526
Outbound 191
486 Total 717

Inbound 242
Outbound 595 26
Total 837

10

77
486 595
32

MATHEWS ROAD

Inbound 80
Outbound 67
Total 147

26 ‖ 11 | 37 | 32
31
10
=====
67

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	SR 5 SOUTH BOUND OFF RAMP				MATHEWS ROAD				SR 5 SOUTH BOUND ON RAMP								
	Southbound				Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	31	0	44	75	3	47	0	50	0	0	0	0	0	27	15	42	167
7:15	19	0	54	73	6	37	0	43	0	0	0	0	0	30	14	44	160
7:30	18	0	62	80	2	57	0	59	0	0	0	0	0	36	13	49	188
7:45	26	0	88	114	3	72	0	75	0	0	0	0	0	28	6	34	223
Hour Total	94	0	248	342	14	213	0	227	0	0	0	0	0	121	48	169	738
8:00am	26	0	91	117	11	49	0	60	0	0	0	0	0	43	8	51	228
8:15	17	0	47	64	3	55	0	58	0	0	0	0	0	46	6	52	174
8:30	10	0	88	98	11	31	0	42	0	0	0	0	0	49	8	57	197
8:45	17	0	34	51	6	44	0	50	0	0	0	0	0	42	11	53	154
Hour Total	70	0	260	330	31	179	0	210	0	0	0	0	0	180	33	213	753
Grand	164	0	508	672	45	392	0	437	0	0	0	0	0	301	81	382	1491
% of Total	11.0%	0.0%	34.1%		3.0%	26.3%	0.0%		0.0%	0.0%	0.0%		0.0%	20.2%	5.4%		
Apprch %				45.1%				29.3%								25.6%	
% of Apprch	24.4%	0.0%	75.6%		10.3%	89.7%	0.0%		0.0%	0.0%	0.0%		0.0%	78.8%	21.2%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 12/15/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	SR 5 SOUTH BOUND OFF RA	07:45am	.840	79	0	314	0	393	20.1	.0	79.8	.0
Westbound	MATHEWS ROAD		.783	28	207	0	0	235	11.9	88.0	.0	.0
Northbound	SR 5 SOUTH BOUND ON RAM		.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Eastbound			.851	0	166	28	0	194	.0	85.5	14.4	.0

SR 5 SOUTH BOUND OFF RAMP

314	0	79	0
288		94	0
			0
			=====
			0

Inbound	393
Outbound	0
Total	393

0

0
521 207
314

0

207
233

Inbound 194
Outbound 521
Total 715

166
153

28
33

Inbound 235
Outbound 245 28
Total 480 19

79
166 245
0

MATHEWS ROAD

Inbound	0
Outbound	56
Total	56

28	0	0	0
0			
28			
=====			
56			

SR 5 SOUTH BOUND ON RAMP

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	SR 5 SOUTH BOUND OFF RAMP				MATHEWS ROAD				SR 5 SOUTH BOUND ON RAMP								
	Southbound				Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
4:00pm	23	0	27	50	3	32	0	35	0	0	0	0	0	124	30	154	239
4:15	18	0	32	50	10	20	0	30	0	0	0	0	0	113	24	137	217
4:30	18	0	31	49	5	26	0	31	0	0	0	0	0	136	35	171	251
4:45	26	1	32	59	4	29	0	33	0	0	0	0	0	129	14	143	235
Hour Total	85	1	122	208	22	107	0	129	0	0	0	0	0	502	103	605	942
5:00pm	20	0	24	44	2	39	0	41	0	0	0	0	0	138	19	157	242
5:15	21	0	28	49	7	32	0	39	0	0	0	0	0	99	25	124	212
5:30	15	0	33	48	4	31	0	35	0	0	0	0	0	109	26	135	218
5:45	20	0	18	38	3	38	0	41	0	0	0	0	0	92	26	118	197
Hour Total	76	0	103	179	16	140	0	156	0	0	0	0	0	438	96	534	869
Grand	161	1	225	387	38	247	0	285	0	0	0	0	0	940	199	1139	1811
% of Total	8.9%	.1%	12.4%		2.1%	13.6%	0.0%		0.0%	0.0%	0.0%		0.0%	51.9%	11.0%		
Apprch %				21.4%				15.7%								62.9%	
% of Apprch	41.6%	.3%	58.1%		13.3%	86.7%	0.0%		0.0%	0.0%	0.0%		0.0%	82.5%	17.5%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 12/15/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	SR 5 SOUTH BOUND OFF RA	04:15pm	.856	82	1	119	0	202	40.5	.4	58.9	.0
Westbound	MATHEWS ROAD		.823	21	114	0	0	135	15.5	84.4	.0	.0
Northbound	SR 5 SOUTH BOUND ON RAM		.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Eastbound			.889	0	516	92	0	608	.0	84.8	15.1	.0

SR 5 SOUTH BOUND OFF RAMP

119	1	82	0
115	1	85	0
			0
			=====
			0

Inbound	202
Outbound	0
Total	202

0

0
233 114
119

0

114
126

144
Inbound ~~135~~
Outbound ~~598~~ 588 21
Total 733 18

Inbound 608
Outbound 233
Total 841

516
503

92
93

82
516 598
0
MATHEWS ROAD

Inbound	0
Outbound	114
Total	114

21	0	0	0
1			
92			
=====			
114			

SR 5 SOUTH BOUND ON RAMP

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	SR 5 NORTH BOUND ON RAMP				MATHEWS ROAD				SR 5 NORTH BOUND OFF RAMP								
	Southbound				Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	0	0	0	0	0	22	9	31	28	0	2	30	24	34	0	58	119
7:15	0	0	0	0	0	21	12	33	22	1	6	29	19	30	0	49	111
7:30	0	0	0	0	0	32	14	46	27	0	8	35	20	34	0	54	135
7:45	0	0	0	0	0	42	16	58	33	0	11	44	19	35	0	54	156
Hour Total	0	0	0	0	0	117	51	168	110	1	27	138	82	133	0	215	521
8:00am	0	0	0	0	0	28	15	43	32	0	2	34	24	44	0	68	145
8:15	0	0	0	0	0	30	21	51	28	1	9	38	20	44	0	64	153
8:30	0	0	0	0	0	21	15	36	21	0	0	21	26	33	0	59	116
8:45	0	0	0	0	0	33	13	46	16	1	1	18	30	29	0	59	123
Hour Total	0	0	0	0	0	112	64	176	97	2	12	111	100	150	0	250	537
Grand	0	0	0	0	0	229	115	344	207	3	39	249	182	283	0	465	1058
% of Total	0.0%	0.0%	0.0%		0.0%	21.6%	10.9%		19.6%	.3%	3.7%		17.2%	26.7%	0.0%		
Apprch %								32.5%				23.5%				44.0%	
% of Apprch	0.0%	0.0%	0.0%		0.0%	66.6%	33.4%		83.1%	1.2%	15.7%		39.1%	60.9%	0.0%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 12/15/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	SR 5 NORTH BOUND ON RAM	07:30am	.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Westbound	MATHEWS ROAD		.853	0	132	66	0	198	.0	66.6	33.3	.0
Northbound	SR 5 NORTH BOUND OFF RA		.858	120	1	30	0	151	79.4	.6	19.8	.0
Eastbound			.882	83	157	0	0	240	34.5	65.4	.0	.0

SR 5 NORTH BOUND ON RAMP

0	0	0	83
			1
			66
			=====
			150

Inbound	0
Outbound	150
Total	150

66

120
252 132
0

132

~~83~~
~~85~~

Inbound ~~240~~ 247
Outbound 252
Total 492

~~157~~
162

Inbound 198
Outbound 187 0
Total 385

0

0
157 187
30

MATHEWS ROAD

Inbound 151
Outbound 0
Total 151

0	120	1	30
0			
0			
=====			
0			

SR 5 NORTH BOUND OFF RAMP

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	SR 5 NORTH BOUND ON RAMP				MATHEWS ROAD				SR 5 NORTH BOUND OFF RAMP								
	Southbound				Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
4:00pm	0	0	0	0	0	23	35	58	12	0	5	17	88	58	0	146	221
4:15	0	0	0	0	0	22	24	46	8	0	2	10	81	50	0	131	187
4:30	0	0	0	0	0	20	30	50	11	1	3	15	103	51	0	154	219
4:45	0	0	0	0	0	18	32	50	15	0	2	17	87	68	0	155	222
Hour Total	0	0	0	0	0	83	121	204	46	1	12	59	359	227	0	586	849
5:00pm	0	0	0	0	0	26	39	65	15	0	0	15	96	63	0	159	239
5:15	0	0	0	0	0	24	46	70	15	0	3	18	70	50	0	120	208
5:30	0	0	0	0	0	20	23	43	15	0	4	19	70	54	0	124	186
5:45	0	0	0	0	0	23	30	53	18	0	2	20	70	42	0	112	185
Hour Total	0	0	0	0	0	93	138	231	63	0	9	72	306	209	0	515	818
Grand	0	0	0	0	0	176	259	435	109	1	21	131	665	436	0	1101	1667
% of Total	0.0%	0.0%	0.0%		0.0%	10.6%	15.5%		6.5%	.1%	1.3%		39.9%	26.2%	0.0%		
Apprch %								26.1%				7.9%				66.0%	
% of Apprch	0.0%	0.0%	0.0%		0.0%	40.5%	59.5%		83.2%	.8%	16.0%		60.4%	39.6%	0.0%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 12/15/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght		Total	Percentages Left	Thru	Rght	
Southbound	SR 5 NORTH BOUND ON RAM	04:30pm	.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Westbound	MATHEWS ROAD		.839	0	88	147	0	235	.0	37.4	62.5	.0
Northbound	SR 5 NORTH BOUND OFF RA		.903	56	1	8	0	65	86.1	1.5	12.3	.0
Eastbound			.925	356	232	0	0	588	60.5	39.4	.0	.0

SR 5 NORTH BOUND ON RAMP

0	0	0	356
			1
			147
			=====
			504

Inbound	0
Outbound	504
Total	504

147

56
144 88
0

356

88

	Inbound	588
	Outbound	144
232	Total	732

Inbound	235	
Outbound	240	0
Total	475	

0

0
232 240
8

MATHEWS ROAD

Inbound	65
Outbound	0
Total	65

0	56	1	8
0			
0			
=====			
0			

SR 5 NORTH BOUND OFF RAMP

All Traffic Data

CITY OF STOCKTON

5098 Foothills Blvd. 3-302
Roseville, CA. 95678
(916)771-8700

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	S. MANTHEY RD. Southbound				Westbound				Northbound				YETTNER RD. Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	0	49	0	49	0	0	0	0	0	22	0	22	1	0	1	2	73
7:15	0	58	0	58	0	0	0	0	0	25	0	25	2	0	0	2	85
7:30	0	88	1	89	0	0	0	0	1	51	0	52	3	0	0	3	144
7:45	0	115	0	115	0	0	0	0	0	37	0	37	2	0	0	2	154
Hour Total	0	310	1	311	0	0	0	0	1	135	0	136	8	0	1	9	456
8:00am	0	71	0	71	0	0	0	0	0	39	0	39	1	0	1	2	112
8:15	0	64	0	64	0	0	0	0	1	20	0	21	0	0	0	0	85
8:30	0	61	0	61	0	0	0	0	0	24	0	24	1	0	0	1	86
8:45	0	54	0	54	0	0	0	0	0	21	0	21	0	0	0	0	75
Hour Total	0	250	0	250	0	0	0	0	1	104	0	105	2	0	1	3	358
Grand	0	560	1	561	0	0	0	0	2	239	0	241	10	0	2	12	814
% of Total	0.0%	68.8%	.1%		0.0%	0.0%	0.0%		.2%	29.4%	0.0%		1.2%	0.0%	.2%		
Apprch %				68.9%								29.6%				1.5%	
% of Apprch	0.0%	99.8%	.2%		0.0%	0.0%	0.0%		.8%	99.2%	0.0%		83.3%	0.0%	16.7%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 03/08/05

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght	Peds	Total	Percentages Left	Thru	Rght	Peds
Southbound	S. MANTHEY RD.	07:30am	.737	0	338	1	0	339	.0	99.7	.2	.0
Westbound			.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Northbound			.716	2	147	0	0	149	1.3	98.6	.0	.0
Eastbound	YETTNER RD.		.583	6	0	1	0	7	85.7	.0	14.2	.0

S. MANTHEY RD.

1	338	0	6
			147
			0
			=====
			153

Inbound	339
Outbound	153
Total	492

YETTNER RD.

	2	
3	0	
	1	
	6	

	Inbound	7
	Outbound	3
0	Total	10

	0
1	

		0
		0
		0

Inbound	0	
Outbound	0	0
Total	0	

	0	
	0	0
	0	

Inbound	149
Outbound	339
Total	488

0	2	147	0
338			
1			
=====			
339			

All Traffic Data

CITY OF STOCKTON

5098 Foothills Blvd. 3-302
Roseville, CA. 95678
(916)771-8700

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	S. MANTHEY RD. Southbound				Westbound				Northbound				YETTNER RD. Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
4:00pm	0	42	1	43	0	0	0	0	1	79	0	80	0	0	0	0	123
4:15	0	44	0	44	0	0	0	0	2	96	0	98	3	0	1	4	146
4:30	0	33	3	36	0	0	0	0	1	147	0	148	0	0	1	1	185
4:45	0	35	1	36	0	0	0	0	1	83	0	84	1	0	0	1	121
Hour Total	0	154	5	159	0	0	0	0	5	405	0	410	4	0	2	6	575
5:00pm	0	25	2	27	0	0	0	0	3	89	0	92	0	0	0	0	119
5:15	0	29	2	31	0	0	0	0	0	75	0	75	2	0	1	3	109
5:30	0	22	1	23	0	0	0	0	0	69	0	69	0	0	0	0	92
5:45	0	17	0	17	0	0	0	0	1	71	0	72	0	0	1	1	90
Hour Total	0	93	5	98	0	0	0	0	4	304	0	308	2	0	2	4	410
Grand	0	247	10	257	0	0	0	0	9	709	0	718	6	0	4	10	985
% of Total	0.0%	25.1%	1.0%		0.0%	0.0%	0.0%		.9%	72.0%	0.0%		.6%	0.0%	.4%		
Apprch %				26.1%								72.9%				1.0%	
% of Apprch	0.0%	96.1%	3.9%		0.0%	0.0%	0.0%		1.3%	98.7%	0.0%		60.0%	0.0%	40.0%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 03/08/05

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght	Peds	Total	Percentages Left	Thru	Rght	Peds
Southbound	S. MANTHEY RD.	04:00pm	.903	0	154	5	0	159	.0	96.8	3.1	.0
Westbound			.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Northbound			.693	5	405	0	0	410	1.2	98.7	.0	.0
Eastbound	YETTNER RD.		.375	4	0	2	0	6	66.6	.0	33.3	.0

CITY OF STOCKTON

All Traffic Data
5098 Foothills Blvd. 3-302
Roseville,CA. 95678
(916)771-8700

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S. MANTHEY RD.

5	154	0	4
			405
			0
			=====
			409

Inbound	159
Outbound	409
Total	568

YETTNER RD.

		5
10		0
		5
		4

	Inbound	6
	Outbound	10
0	Total	16

	2

		0
		0
		0
		0

Inbound	0	
Outbound	0	0
Total	0	

	0
	0
	0

Inbound	410
Outbound	156
Total	566

0		5	405	0
154				
2				
=====				
156				

CITY OF STOCKTON

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	WOLFE RD.				HOWARD RD.												
	Southbound				Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	0	2	18	20	1	17	0	18	1	2	0	3	3	5	1	9	50
7:15	0	0	16	16	2	27	1	30	3	1	1	5	1	6	0	7	58
7:30	1	3	11	15	2	47	0	49	1	0	3	4	1	10	4	15	83
7:45	0	2	9	11	1	26	0	27	1	0	2	3	0	11	0	11	52
Hour Total	1	7	54	62	6	117	1	124	6	3	6	15	5	32	5	42	243
8:00am	1	1	6	8	0	21	1	22	1	1	3	5	0	15	0	15	50
8:15	0	2	11	13	3	22	0	25	0	2	4	6	1	17	0	18	62
8:30	2	1	7	10	3	17	0	20	0	0	1	1	0	16	2	18	49
8:45	1	2	8	11	0	19	0	19	1	4	1	6	2	6	1	9	45
Hour Total	4	6	32	42	6	79	1	86	2	7	9	18	3	54	3	60	206
Grand	5	13	86	104	12	196	2	210	8	10	15	33	8	56	8	102	449
% of Total	1.1%	2.9%	19.2%		2.7%	43.7%	.4%		1.8%	2.2%	3.3%		1.8%	19.2%	1.8%		
Apprch %				23.2%				46.8%				7.3%				22.7%	
% of Apprch	4.8%	12.5%	82.7%		5.7%	93.3%	1.0%		24.2%	30.3%	45.5%		7.8%	84.3%	7.8%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 09:45am on 03/08/05

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght	Peds	Total	Percentages Left	Thru	Rght	Peds
Southbound	WOLFE RD.	07:30am	.783	2	8	37	0	47	4.2	17.0	75.7	.0
Westbound	HOWARD RD.		.528	6	116	1	0	123	4.8	94.3	.8	.0
Northbound			.750	3	3	12	0	18	16.6	16.6	66.6	.0
Eastbound			.819	2	53	4	0	59	3.3	89.8	6.7	.0

WOLFE RD.

37 8 2

2
3
1
=====
6

Inbound 47
Outbound 6
Total 53

1

3
156 116
37
=====
2

116

Inbound 59
Outbound 156
Total 215

53

Inbound 123
Outbound 67
Total 190

6

4

2
53 67
12
HOWARD RD.

Inbound 18
Outbound 18
Total 36

6 3 3 12
8
4
=====
18

All Traffic Data

:ITY OF STOCKTON

5098 Foothills Blvd. 3-302
Roseville,CA. 95678
(916)771-6700

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	WOLFE RD.				HOWARD RD.												
	Southbound				Westbound				Northbound				Eastbound				
:tart :ime	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
4:00pm	1	1	3	5	1	15	0	16	1	0	0	1	30	71	4	105	127
4:15	1	0	1	2	4	10	1	15	1	0	3	4	33	69	1	103	124
4:30	0	2	2	4	5	8	0	13	0	1	1	2	36	78	1	115	134
4:45	2	1	1	4	2	11	1	14	3	3	0	6	36	94	1	131	155
:our Total	4	4	7	15	12	44	2	58	5	4	4	13	135	312	7	454	540
5:00pm	1	1	0	2	1	19	1	21	1	1	4	6	30	84	2	116	145
5:15	1	1	3	5	2	12	0	14	1	3	2	6	35	77	3	115	140
5:30	2	0	0	2	2	9	1	12	0	0	0	0	31	72	1	104	118
5:45	1	1	1	3	2	12	0	14	2	1	1	4	29	67	1	97	118
:our Total	5	3	4	12	7	52	2	61	4	5	7	16	125	300	7	432	521
:and	9	7	11	27	19	96	4	119	9	9	11	29	260	612	14	886	1061
of Total	.8%	.7%	1.0%		1.8%	9.0%	.4%		.8%	.8%	1.0%		24.5%	57.7%	1.3%		
)prch %				2.5%				11.2%				2.7%				83.5%	
of Apprch	33.3%	25.9%	40.7%		16.0%	80.7%	3.4%		31.0%	31.0%	37.9%		29.3%	69.1%	1.6%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 03/08/05

		Start	Peak Hr	..... Volumes					..... Percentages			
Direction	Street Name	Peak Hour	Factor	Left	Thru	Rght	Peds	Total	Left	Thru	Rght	Peds
Southbound	WOLFE RD.	04:30pm	.750	4	5	6	0	15	26.6	33.3	40.0	.0
Westbound	HOWARD RD.		.738	10	50	2	0	62	16.1	80.6	3.2	.0
Northbound			.833	5	8	7	0	20	25.0	40.0	35.0	.0
Eastbound			.910	137	333	7	0	477	28.7	69.8	1.4	.0

WOLFE RD.

6 5 4 137
8
2
=====
147

Inbound 15
Outbound 147
Total 162

2

5
61 50
6

137

50

Inbound 477
Outbound 61
Total 538

333

Inbound 62
Outbound 344 10
Total 406

7

4
333 344
7

HOWARD RD.

Inbound 20
Outbound 22
Total 42

10 5 8 7
5
7
=====
22

ITY OF STOCKTON

All Traffic Data
5098 Foothills Blvd. 3-302
Roseville,CA. 95678
(916)771-8700

Site Code : 00000000
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	E.W.S. WOODS BLVD. Southbound				FRENCH CAMP RD. Westbound				WOLFE RD. Northbound				Eastbound				
art me	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
:00am	29	13	2	44	2	23	12	37	1	2	1	4	0	54	10	64	149
:15	28	9	15	52	2	48	18	68	1	4	1	6	5	69	8	82	208
:30	28	8	7	43	6	29	10	45	0	1	0	1	4	58	4	66	155
:45	29	9	3	41	5	29	13	47	0	1	1	2	1	47	6	54	144
ur Total	114	39	27	180	15	129	53	197	2	8	3	13	10	228	28	266	656
:00am	25	4	2	31	7	19	7	33	0	0	0	0	4	45	2	51	115
:15	27	5	4	36	4	18	8	30	1	4	1	6	1	33	3	37	109
:30	29	3	2	34	7	22	11	40	0	2	0	2	2	38	2	42	118
:45	24	7	3	34	5	17	9	31	0	1	2	3	1	33	1	35	103
ur Total	105	19	11	135	23	76	35	134	1	7	3	11	8	149	8	165	445
and	219	58	38	315	38	205	88	331	3	15	6	24	18	377	36	431	1101
of Total	19.9%	5.3%	3.5%		3.5%	18.6%	8.0%		.3%	1.4%	.5%		1.6%	34.2%	3.3%		
prch %				28.6%				30.1%				2.2%				39.1%	
of Apprch	69.5%	18.4%	12.1%		11.5%	61.9%	26.6%		12.5%	62.5%	25.0%		4.2%	87.5%	8.4%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 03/08/05

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes Left	Thru	Rght	Peds	Total	Percentages Left	Thru	Rght	Peds
Southbound	E.W.S. WOODS BLVD.	07:00am	.865	114	39	27	0	180	63.3	21.6	15.0	.0
Westbound	FRENCH CAMP RD.		.724	15	129	53	0	197	7.6	65.4	26.9	.0
Northbound	WOLFE RD.		.542	2	8	3	0	13	15.3	61.5	23.0	.0
Eastbound			.811	10	228	28	0	266	3.7	85.7	10.5	.0

E.W.S. WOODS BLVD.

27	39	114	10
			8
			53
			=====
			71

Inbound	180
Outbound	71
Total	251

53

2
158 129
27

10

129

Inbound	266
Outbound	158
Total	424

228

Inbound	197
Outbound	345
Total	542

15

28

114
228 345
3

FRENCH CAMP RD.

Inbound	13
Outbound	82
Total	95

15	2	8	3
39			
28			
=====			
82			

WOLFE RD.

ITY OF STOCKTON

All Traffic Data
5095 Foothills Blvd. 3-302
Roseville,CA. 95678
(916)771-8700

Site Code : 00000000
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	E.W.S. WOODS BLVD. Southbound				FRENCH CAMP RD. Westbound				WOLFE RD. Northbound				Eastbound				
:art :me	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
:00pm	25	5	0	30	2	34	12	48	8	18	3	29	2	37	1	40	147
:15	21	2	2	25	3	45	19	67	7	24	6	37	0	35	1	36	165
:30	18	7	2	27	5	47	18	70	5	31	8	44	1	33	0	34	175
:45	12	4	3	19	0	50	17	67	9	35	24	68	3	29	0	32	186
ur Total	76	18	7	101	10	176	66	252	29	108	41	178	6	134	2	142	673
:00pm	17	1	1	19	4	48	26	78	2	25	12	39	0	27	0	27	163
:15	12	2	2	16	5	62	22	89	12	37	6	55	1	25	1	27	187
:30	15	3	1	19	3	58	18	79	8	34	8	50	0	31	1	32	180
:45	11	2	1	14	5	52	16	73	5	27	4	36	1	24	0	25	148
ur Total	55	8	5	68	17	220	82	319	27	123	30	180	2	107	2	111	678
and	131	26	12	169	27	396	148	571	56	231	71	358	8	241	4	253	1351
of Total	9.7%	1.9%	.9%		2.0%	29.3%	11.0%		4.1%	17.1%	5.3%		.6%	17.8%	.3%		
prch %				12.5%				42.3%				26.5%				18.7%	
of Apprch	77.5%	15.4%	7.1%		4.7%	69.4%	25.9%		15.6%	64.5%	19.8%		3.2%	95.3%	1.6%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 03/08/05

		Start	Peak Hr	..... Volumes					..... Percentages			
Direction	Street Name	Peak Hour	Factor	Left	Thru	Rght	Peds	Total	Left	Thru	Rght	Peds
Southbound	E.W.S. WOODS BLVD.	04:45pm	.961	56	10	7	0	73	76.7	13.6	9.5	.0
Westbound	FRENCH CAMP RD.		.879	12	218	83	0	313	3.8	69.6	26.5	.0
Northbound	WOLFE RD.		.779	31	131	50	0	212	14.6	61.7	23.5	.0
Eastbound			.522	4	112	2	0	118	3.3	94.9	1.6	.0

E.W.S. WOODS BLVD.

7	10	56	4
			131
			83
			=====
			218

Inbound	73
Outbound	218
Total	291

83

31
256 218
7

4

218

	Inbound	118
	Outbound	256
112	Total	374

Inbound	313	
Outbound	218	12
Total	531	

2

56
112 218
50

FRENCH CAMP RD.

Inbound	212
Outbound	24
Total	236

12	31	131	50
10			
2			
=====			
24			

WOLFE RD.

CITY OF STOCKTON

All Traffic Data
(916) 771-8700
Fax 786-2879

Site Code : 00000000
Start Date: 03/31/05
File I.D. : HLMCDOUF
Page : 1

	MCDOUGALD BLVD. Southbound				HENRY LONG BLVD. Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total
7:00am	2	0	3	5	0	9	1	10	4	4	0	8	2	13	13	28	51
7:15	2	7	5	14	1	8	4	13	5	3	0	8	5	12	10	27	62
7:30	6	10	2	18	0	9	14	23	4	5	0	9	5	16	6	28	78
7:45	0	13	8	21	0	7	10	17	5	12	0	17	12	14	13	39	94
Hour Total	10	30	18	58	1	33	29	63	18	24	0	42	25	55	42	122	285
8:00am	10	14	47	71	0	7	7	14	7	6	0	13	32	10	10	52	150
8:15	4	12	22	38	0	8	5	13	2	12	0	14	26	17	7	50	115
8:30	6	14	31	51	0	12	2	14	7	2	0	9	22	14	14	50	124
8:45	3	8	6	17	0	8	0	8	0	3	0	3	10	14	9	33	61
Hour Total	23	48	106	177	0	35	14	49	16	23	0	39	90	55	40	185	450
Grand	33	78	124	235	1	68	43	112	34	47	0	81	115	110	82	307	735
% of Total	4.5%	10.6%	16.9%		.1%	9.3%	5.9%		4.6%	6.4%	0.0%		15.6%	15.0%	11.2%		
Apprch %				32.0%				15.2%				11.0%				41.8%	
% of Apprch	14.0%	33.2%	52.8%		.9%	60.7%	38.4%		42.0%	58.0%	0.0%		37.5%	35.8%	26.7%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 03/31/05

Direction	Street Name	Start Peak Hour	Peak Hr Factor	..... Volumes ..... Left	Thru	Rght	Total	..... Percentages ..... Left	Thru	Rght
Southbound	MCDOUGALD BLVD.	07:45am	.637	20	53	108	181	11.0	29.2	59.6
Westbound	HENRY LONG BLVD.		.853	0	34	24	58	.0	58.6	41.3
Northbound			.779	21	32	0	53	39.6	60.3	.0
Eastbound			.918	92	55	44	191	48.1	28.7	23.0

CITY OF STOCKTON

All Traffic Data
(916) 771-8700
Fax 786-2879

Site Code : 00000000
Start Date: 03/31/05
File I.D. : HLMCDOUF
Page : 2

MCDOUGALD BLVD.

108 | 53 | 20 ‖ 92
32
24
=====
148

Inbound 181
Outbound 148
Total 329

21
163 34
108
92

24
34

Inbound 191
Outbound 163
55 Total 354

Inbound 58
Outbound 75 0
Total 133

44

20
55 75
0

Inbound 53
Outbound 97
Total 150

0 ‖ 21 | 32 | 0
53
44
=====
97

HENRY LONG BLVD.

CITY OF STOCKTON

All Traffic Data
(916) 771-8700
Fax 786-2879

Site Code : 00000000
Start Date: 03/31/05
File I.D. : HLMCDOUF
Page : 1

Start Time	MCDOUGALD BLVD. Southbound Left	Thru	Rght	Totl	HENRY LONG BLVD. Westbound Left	Thru	Rght	Totl	Northbound Left	Thru	Rght	Totl	Eastbound Left	Thru	Rght	Totl	Total
4:00pm	2	9	7	18	0	25	4	29	7	8	1	16	6	18	8	32	95
4:15	1	12	6	19	0	17	6	23	13	5	0	18	7	15	10	32	92
4:30	3	6	6	15	0	30	3	33	4	10	1	15	8	15	7	30	93
4:45	2	7	11	20	0	21	6	27	9	9	0	18	5	13	10	28	93
Hour Total	8	34	30	72	0	93	19	112	33	32	2	67	26	61	35	122	373
5:00pm	1	5	11	17	1	17	9	27	12	9	0	21	10	18	12	40	105
5:15	1	6	13	20	0	21	6	27	20	6	0	26	8	11	7	26	99
5:30	0	3	14	17	1	30	10	41	10	10	0	20	8	15	11	34	112
5:45	2	5	8	15	0	24	4	28	8	7	0	15	6	16	7	29	87
Hour Total	4	19	46	69	2	92	29	123	50	32	0	82	32	60	37	129	403
Grand	12	53	76	141	2	185	48	235	83	64	2	149	58	121	72	251	776
% of Total	1.5%	6.8%	9.8%		.3%	23.8%	6.2%		10.7%	8.2%	.3%		7.5%	15.6%	9.3%		
Apprch %				18.2%				30.3%				19.2%				32.3%	
% of Apprch	8.5%	37.6%	53.9%		.9%	78.7%	20.4%		55.7%	43.0%	1.3%		23.1%	48.2%	28.7%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 03/31/05

Direction	Street Name	Start Peak Hour	Peak Hr Factor	..... Volumes ..... Left	Thru	Rght	Total	..... Percentages ..... Left	Thru	Rght
Southbound	MCDOUGALD BLVD.	04:45pm	.925	4	21	49	74	5.4	28.3	66.2
Westbound	HENRY LONG BLVD.		.744	2	89	31	122	1.6	72.9	25.4
Northbound			.817	51	34	0	85	60.0	40.0	.0
Eastbound			.800	31	57	40	128	24.2	44.5	31.2

CITY OF STOCKTON

All Traffic Data
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Fax 786-2879

Site Code : 00000000
Start Date: 03/31/05
File I.D. : HLMCDOUF
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MCDOUGALD BLVD.

49 | 21 | 4 ‖ 31
34
31
=====
96

Inbound 74
Outbound 96
Total 170

51
189 89
49

31

31

89

Inbound 128
Outbound 189
57 Total 317

Inbound 122
Outbound 61 2
Total 183

40

4
57 61
0

Inbound 85
Outbound 63
Total 148

2 ‖ 51 | 34 | 0
21
40
=====
63

HENRY LONG BLVD.

CITY OF STOCKTON

All Traffic Data
(916) 771-8700
Fax 786-2879

Site Code : 00000000
Start Date: 03/31/05
File I.D. : HLMANTF
Page : 1

Start Time	MANTHEY RD. Southbound Left	Thru	Rght	Totl	Westbound Left	Thru	Rght	Totl	Northbound Left	Thru	Rght	Totl	HENRY LONG BLVD. Eastbound Left	Thru	Rght	Totl	Total
7:00am	0	29	3	32	0	0	0	0	8	18	0	26	1	0	14	15	73
7:15	0	33	3	36	0	0	0	0	10	14	0	24	4	0	11	15	75
7:30	0	37	3	40	0	0	0	0	20	22	0	42	7	0	13	20	102
7:45	0	36	1	37	0	0	0	0	15	23	0	38	4	0	15	19	94
Hour Total	0	135	10	145	0	0	0	0	53	77	0	130	16	0	53	69	344
8:00am	0	35	3	38	0	0	0	0	11	19	0	30	4	0	17	21	89
8:15	0	22	2	24	0	0	0	0	10	26	0	36	9	0	13	22	82
8:30	0	22	6	28	0	0	0	0	8	10	0	18	8	0	11	19	65
8:45	0	33	2	35	0	0	0	0	5	19	0	24	2	0	15	17	76
Hour Total	0	112	13	125	0	0	0	0	34	74	0	108	23	0	56	79	312
Grand	0	247	23	270	0	0	0	0	87	151	0	238	39	0	109	148	656
% of Total	0.0%	37.7%	3.5%		0.0%	0.0%	0.0%		13.3%	23.0%	0.0%		5.9%	0.0%	16.6%		
Apprch %				41.2%								36.3%				22.6%	
% of Apprch	0.0%	91.5%	8.5%		0.0%	0.0%	0.0%		36.6%	63.4%	0.0%		26.4%	0.0%	73.6%		

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 03/31/05

Direction	Street Name	Start Peak Hour	Peak Hr Factor	..... Volumes ..... Left	Thru	Rght	Total	..... Percentages ..... Left	Thru	Rght
Southbound	MANTHEY RD.	07:30am	.869	0	130	9	139	.0	93.5	6.4
Westbound			.0	0	0	0	0	0.0	0.0	0.0
Northbound			.869	56	90	0	146	38.3	61.6	.0
Eastbound	HENRY LONG BLVD.		.932	24	0	58	82	29.2	.0	70.7

CITY OF STOCKTON

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MANTHEY RD.

9	130	0	24
			90
			0
			=====
			114

Inbound	139
Outbound	114
Total	253

HENRY LONG BLVD.

	56
65	0
	9
	24

Inbound	82
Outbound	65
Total	147

0

58

		0
		0

Inbound	0
Outbound	0
Total	0

0

		0
		0
		0

Inbound	146
Outbound	188
Total	334

0	56	90	0
130			
58			
=====			
188			

CITY OF STOCKTON

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Start Time	MANTHEY RD. Southbound Left	Thru	Rght	Totl	Westbound Left	Thru	Rght	Totl	Northbound Left	Thru	Rght	Totl	HENRY LONG BLVD. Eastbound Left	Thru	Rght	Totl	Total
4:00pm	0	29	2	31	0	0	0	0	27	54	0	81	6	0	16	22	134
4:15	0	36	6	42	0	0	0	0	17	60	0	77	6	0	9	15	134
4:30	0	33	14	47	0	0	0	0	20	57	0	77	6	0	11	17	141
4:45	0	25	7	32	0	0	0	0	19	58	0	77	4	0	11	15	124
Hour Total	0	123	29	152	0	0	0	0	83	229	0	312	22	0	47	69	533
5:00pm	0	27	6	33	0	0	0	0	22	52	0	74	7	0	12	19	126
5:15	0	28	11	39	0	0	0	0	18	62	0	80	7	0	4	11	130
5:30	0	36	6	42	0	0	0	0	34	49	0	83	9	0	7	16	141
5:45	0	24	6	30	0	0	0	0	22	56	0	78	6	0	13	19	127
Hour Total	0	115	29	144	0	0	0	0	96	219	0	315	29	0	36	65	524
Grand	0	238	58	296	0	0	0	0	179	448	0	627	51	0	83	134	1057
% of Total	0.0%	22.5%	5.5%		0.0%	0.0%	0.0%		16.9%	42.4%	0.0%		4.8%	0.0%	7.9%		
Apprch %				28.0%								59.3%				12.7%	
% of Apprch	0.0%	80.4%	19.6%		0.0%	0.0%	0.0%		28.5%	71.5%	0.0%		38.1%	0.0%	61.9%		

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 03/31/05

Direction	Street Name	Start Peak Hour	Peak Hr Factor	..... Volumes ..... Left	Thru	Rght	Total	..... Percentages ..... Left	Thru	Rght
Southbound	MANTHEY RD.	04:00pm	.809	0	123	29	152	.0	80.9	19.0
Westbound			.0	0	0	0	0	0.0	0.0	0.0
Northbound			.963	83	229	0	312	26.6	73.3	.0
Eastbound	HENRY LONG BLVD.		.784	22	0	47	69	31.8	.0	68.1

CITY OF STOCKTON

All Traffic Data
(916) 771-8700
Fax 786-2879

Site Code : 00000000
Start Date: 03/31/05
File I.D. : HLMANTF
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MANTHEY RD.

29 | 123 | 0 ‖ 22
229
0
=====
251

Inbound 152
Outbound 251
Total 403

HENRY LONG BLVD.

83
112 0
29
=====
22

Inbound 69
Outbound 112
0 Total 181

47

0

0

Inbound 0
Outbound 0 0
Total 0

0
0 0
0

Inbound 312
Outbound 170
Total 482

0 ‖ 83 | 229 | 0
123
47
=====
170

APPENDIX B:
INTERSECTION LEVELS OF SERVICE

EXISTING CONDITIONS

Weston Ranch Towne Center EIR
Existing
AM Peak Hour

Scenario Report

Scenario:	Existing AM
Command:	Existing AM
Volume:	Existing AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	No Project
Trip Distribution:	Existing
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Weston Ranch Towne Center EIR
Existing
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Carolyn Weston Boulevard/McDougald Boulevard

Cycle (sec):	60	Critical Vol./Cap. (X):	0.494
Loss Time (sec):	16 (Y+R = 5 sec)	Average Delay (sec/veh):	20.5
Optimal Cycle:	50	Level Of Service:	C

Street Name:	/McDougald Boulevard						Carolyn Weston Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0 1 0 1			1 0 0 1 0			1 0 1 1 0			1 0 1 1 0		
Volume Module: 745-845												
Base Vol:	13	5	183	16	11	2	2	579	15	102	263	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	5	183	16	11	2	2	579	15	102	263	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	14	5	193	17	12	2	2	609	16	107	277	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	5	193	17	12	2	2	609	16	107	277	5
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	14	5	193	17	12	2	2	609	16	107	277	5
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.98	0.98	0.95	0.95	0.95	0.95	0.95	0.95
Lanes:	1.00	1.00	1.00	1.00	0.85	0.15	1.00	1.95	0.05	1.00	1.96	0.04
Final Sat.:	1805	1900	1615	1805	1571	286	1805	3505	91	1805	3532	67
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.12	0.01	0.01	0.01	0.00	0.17	0.17	0.06	0.08	0.08
Crit Moves:			****	****				****		****		
Green/Cycle:	0.13	0.20	0.20	0.12	0.19	0.19	0.17	0.30	0.30	0.12	0.24	0.24
Volume/Cap:	0.06	0.01	0.59	0.08	0.04	0.04	0.01	0.59	0.59	0.51	0.32	0.32
Delay/Veh:	22.9	19.1	24.4	23.8	20.0	20.0	20.7	18.8	18.8	27.0	18.9	18.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.9	19.1	24.4	23.8	20.0	20.0	20.7	18.8	18.8	27.0	18.9	18.9
HCM2kAvg:	0	0	4	0	0	0	0	5	5	3	2	2

Weston Ranch Towne Center EIR
Existing
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Carolyn Weston Boulevard/S. Manthey Road

Cycle (sec): 80 Critical Vol./Cap. (X): 0.484
Loss Time (sec): 12 (Y+R = 5 sec) Average Delay (sec/veh): 16.9
Optimal Cycle: 39 Level Of Service: B

Street Name:	S. Manthey Road						Carolyn Weston Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module: 745-845												
Base Vol:	88	0	166	0	0	0	0	708	37	145	334	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	88	0	166	0	0	0	0	708	37	145	334	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	93	0	175	0	0	0	0	745	39	153	352	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	0	175	0	0	0	0	745	39	153	352	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	93	0	175	0	0	0	0	745	39	153	352	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.85	1.00	1.00	1.00	1.00	0.94	0.94	0.95	0.95	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	1.90	0.10	1.00	2.00	0.00
Final Sat.:	3502	0	1615	0	0	0	0	3407	178	1805	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.11	0.00	0.00	0.00	0.00	0.22	0.22	0.08	0.10	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.22	0.00	0.22	0.00	0.00	0.00	0.00	0.45	0.45	0.17	0.63	0.00
Volume/Cap:	0.12	0.00	0.48	0.00	0.00	0.00	0.00	0.48	0.48	0.48	0.16	0.00
Delay/Veh:	24.8	0.0	28.1	0.0	0.0	0.0	0.0	15.6	15.6	30.9	6.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.8	0.0	28.1	0.0	0.0	0.0	0.0	15.6	15.6	30.9	6.2	0.0
HCM2kAvg:	1	0	4	0	0	0	0	6	6	4	1	0

Weston Ranch Towne Center EIR
Existing
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Downing Avenue/French Camp Turnpike

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: C[15.6]

Street Name:	French Camp Turnpike						Downing Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0	1 0	0 1	0
Volume Module: 730-830												
Base Vol:	55	5	2	26	8	34	51	165	114	10	169	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	55	5	2	26	8	34	51	165	114	10	169	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	58	5	2	27	8	36	54	174	120	11	178	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	58	5	2	27	8	36	54	174	120	11	178	15
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	569	555	234	551	607	185	193	xxxx	xxxxx	294	xxxx	xxxxx
Potent Cap.:	436	443	810	448	413	862	1393	xxxx	xxxxx	1279	xxxx	xxxxx
Move Cap.:	396	422	810	427	394	862	1393	xxxx	xxxxx	1279	xxxx	xxxxx
Volume/Cap:	0.15	0.01	0.00	0.06	0.02	0.04	0.04	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx	7.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	405	xxxxx	xxxx	564	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.6	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	15.6	xxxxx	xxxxx	12.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	B	*	*	*	*	*	*	*
ApproachDel:	15.6			12.3			xxxxxx			xxxxxx		
ApproachLOS:	C			B			*			*		

Existing
3: Downing Avenue & I-5 SB Ramps

AM Peak Hour
3/3/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95						1.00	0.88
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		5085	1583	1770	3539						1775	2787
Flt Permitted		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (perm)		5085	1583	1770	3539						1775	2787
Volume (vph)	0	740	134	20	182	0	0	0	0	203	3	298
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	779	141	21	192	0	0	0	0	214	3	314
RTOR Reduction (vph)	0	0	52	0	0	0	0	0	0	0	0	257
Lane Group Flow (vph)	0	779	89	21	192	0	0	0	0	0	217	57
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		44.0	44.0	1.2	49.2						12.8	12.8
Effective Green, g (s)		44.0	44.0	1.2	49.2						12.8	12.8
Actuated g/C Ratio		0.63	0.63	0.02	0.70						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)		3196	995	30	2487						325	510
v/s Ratio Prot		c0.15		c0.01	0.05							
v/s Ratio Perm			0.06								0.12	0.02
v/c Ratio		0.24	0.09	0.70	0.08						0.67	0.11
Uniform Delay, d1		5.7	5.1	34.2	3.3						26.6	23.9
Progression Factor		1.00	1.00	0.70	0.77						1.00	1.00
Incremental Delay, d2		0.2	0.2	52.6	0.1						5.1	0.1
Delay (s)		5.9	5.3	76.5	2.6						31.7	24.0
Level of Service		A	A	E	A						C	C
Approach Delay (s)		5.8			9.9			0.0			27.1	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Existing
4: Downing Avenue & I-5 NB Ramps

AM Peak Hour
3/3/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	0.97	1.00			0.95			1.00	1.00			
Frt	1.00	1.00			0.93			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (prot)	3433	1863			3285			1775	1583			
Flt Permitted	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (perm)	3433	1863			3285			1775	1583			
Volume (vph)	631	312	0	0	136	124	66	1	18	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)	664	328	0	0	143	131	69	1	19	0	0	0
RTOR Reduction (vph)	0	0	0	0	66	0	0	0	18	0	0	0
Lane Group Flow (vph)	664	328	0	0	209	0	0	70	1	0	0	0
Turn Type	Prot						Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	17.5	56.5			35.0			5.5	5.5			
Effective Green, g (s)	17.5	56.5			35.0			5.5	5.5			
Actuated g/C Ratio	0.25	0.81			0.50			0.08	0.08			
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)	858	1504			1643			139	124			
v/s Ratio Prot	c0.19	c0.18			0.06							
v/s Ratio Perm								0.04	0.00			
v/c Ratio	0.77	0.22			0.13			0.50	0.01			
Uniform Delay, d1	24.4	1.6			9.3			30.9	29.7			
Progression Factor	0.81	1.05			1.00			1.00	1.00			
Incremental Delay, d2	4.3	0.3			0.2			2.9	0.0			
Delay (s)	24.1	2.0			9.5			33.8	29.8			
Level of Service	C	A			A			C	C			
Approach Delay (s)		16.8			9.5			32.9			0.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM Average Control Delay	16.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Weston Ranch Towne Center EIR
Existing
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 William Moss Boulevard/McDougald Boulevard

Cycle (sec): 60 Critical Vol./Cap. (X): 0.195
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 19.6
Optimal Cycle: 50 Level Of Service: B

Street Name:	McDougald Boulevard						William Moss Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module: 745-845												
Base Vol:	5	94	47	44	121	57	26	48	4	56	132	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	94	47	44	121	57	26	48	4	56	132	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	5	99	49	46	127	60	27	51	4	59	139	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	99	49	46	127	60	27	51	4	59	139	64
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	5	99	49	46	127	60	27	51	4	59	139	64
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.90	0.90	0.95	0.90	0.90	0.95	0.94	0.94	0.95	0.91	0.91
Lanes:	1.00	1.33	0.67	1.00	1.36	0.64	1.00	1.85	0.15	1.00	1.37	0.63
Final Sat.:	1805	2286	1143	1805	2336	1101	1805	3292	274	1805	2353	1087
Capacity Analysis Module:												
Vol/Sat:	0.00	0.04	0.04	0.03	0.05	0.05	0.02	0.02	0.02	0.03	0.06	0.06
Crit Moves:		****		****			****				****	
Green/Cycle:	0.14	0.21	0.21	0.12	0.20	0.20	0.12	0.24	0.24	0.17	0.28	0.28
Volume/Cap:	0.02	0.21	0.21	0.21	0.28	0.28	0.13	0.07	0.07	0.20	0.21	0.21
Delay/Veh:	22.5	19.8	19.8	24.1	20.8	20.8	24.0	17.8	17.8	21.9	16.4	16.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.5	19.8	19.8	24.1	20.8	20.8	24.0	17.8	17.8	21.9	16.4	16.4
HCM2kAvg:	0	1	1	1	2	2	1	0	0	1	1	1

Weston Ranch Towne Center EIR
Existing
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 William Moss Boulevard/S. Manthey Road

Cycle (sec): 60 Critical Vol./Cap. (X): 0.169
Loss Time (sec): 12 (Y+R = 5 sec) Average Delay (sec/veh): 14.1
Optimal Cycle: 39 Level Of Service: B

Street Name:							William Moss Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 0	0	0 0	0 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module: 7-8												
Base Vol:	38	62	0	0	76	32	143	0	78	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	62	0	0	76	32	143	0	78	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	40	65	0	0	80	34	151	0	82	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	65	0	0	80	34	151	0	82	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	40	65	0	0	80	34	151	0	82	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.96	0.96	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.70	0.30	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	1284	540	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.03	0.00	0.00	0.06	0.06	0.08	0.00	0.05	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.12	0.41	0.00	0.00	0.29	0.29	0.39	0.00	0.39	0.00	0.00	0.00
Volume/Cap:	0.19	0.08	0.00	0.00	0.21	0.21	0.21	0.00	0.13	0.00	0.00	0.00
Delay/Veh:	24.4	10.9	0.0	0.0	16.2	16.2	12.3	0.0	11.8	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.4	10.9	0.0	0.0	16.2	16.2	12.3	0.0	11.8	0.0	0.0	0.0
HCM2kAvg:	1	1	0	0	2	2	2	0	1	0	0	0

Weston Ranch Towne Center EIR
Existing
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #8 Henry Long Boulevard/McDougald Boulevard

Cycle (sec): 100 Critical Vol./Cap. (X): 0.232
Loss Time (sec): 0 (Y+R = 5 sec) Average Delay (sec/veh): 8.8
Optimal Cycle: 0 Level Of Service: A

Street Name:	McDougald Boulevard						Henry Long Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 1	0 0	0	1 0	0 0	1 0	1 0	0 0	1 0	0 0	0 0	1 0
Volume Module:												
Base Vol:	21	32	0	20	53	108	92	55	44	0	34	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	21	32	0	20	53	108	92	55	44	0	34	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	22	34	0	21	56	114	97	58	46	0	36	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	34	0	21	56	114	97	58	46	0	36	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	22	34	0	21	56	114	97	58	46	0	36	25
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.40	0.60	0.00	1.00	0.33	0.67	1.00	0.56	0.44	0.00	0.59	0.41
Final Sat.:	250	381	0	608	240	489	616	397	317	0	395	279
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	xxxx	0.03	0.23	0.23	0.16	0.15	0.15	xxxx	0.09	0.09
Crit Moves:	****				****		****				****	
Delay/Veh:	9.0	9.0	0.0	8.6	8.8	8.8	9.4	8.3	8.3	0.0	8.6	8.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.0	9.0	0.0	8.6	8.8	8.8	9.4	8.3	8.3	0.0	8.6	8.6
LOS by Move:	A	A	*	A	A	A	A	A	A	*	A	A
ApproachDel:	9.0			8.8			8.8			8.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.0			8.8			8.8			8.6		
LOS by Appr:	A			A			A			A		

Weston Ranch Towne Center EIR
Existing
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Henry Long Boulevard/Manthey Road

Average Delay (sec/veh): 3.4 Worst Case Level Of Service: B[10.0]

Street Name:	Manthey Road						Henry Long Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	0 0	0	0 0	0 1	0	0 0	1! 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	56	90	0	0	130	9	24	0	58	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	56	90	0	0	130	9	24	0	58	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	59	95	0	0	137	9	25	0	61	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	59	95	0	0	137	9	25	0	61	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	146	xxxx	xxxxx	xxxx	xxxx	xxxxx	354	xxxx	142	xxxx	xxxx	xxxxx
Potent Cap.:	1448	xxxx	xxxxx	xxxx	xxxx	xxxxx	648	xxxx	912	xxxx	xxxx	xxxxx
Move Cap.:	1448	xxxx	xxxxx	xxxx	xxxx	xxxxx	627	xxxx	912	xxxx	xxxx	xxxxx
Volume/Cap:	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	xxxx	0.07	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	7.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	805	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	7.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	10.0	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	B	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx				10.0			xxxxxx	
ApproachLOS:	*			*				B			*	

Weston Ranch Towne Center EIR
Existing
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Wolfe Road / French Camp Road

Cycle (sec): 60 Critical Vol./Cap. (X): 0.248
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 53 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0	0	1!	0 0	1	0	1	0 1	1	0	0	1 0	1	0	0	1 0
Volume Module:																
Base Vol:	2	8	3		114	39	27		10	228	28		15	129	53	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	2	8	3		114	39	27		10	228	28		15	129	53	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	2	8	3		120	41	28		11	240	29		16	136	56	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	2	8	3		120	41	28		11	240	29		16	136	56	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	2	8	3		120	41	28		11	240	29		16	136	56	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.96	0.96	0.96		0.95	1.00	0.85		0.95	0.98	0.98		0.95	0.96	0.96	
Lanes:	0.15	0.62	0.23		1.00	1.00	1.00		1.00	0.89	0.11		1.00	0.71	0.29	
Final Sat.:	281	1124	421		1805	1900	1615		1805	1665	204		1805	1287	529	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.07	0.02	0.02		0.01	0.14	0.14		0.01	0.11	0.11	
Crit Moves:		****				****				****				****		
Green/Cycle:	0.17	0.17	0.17		0.17	0.17	0.17		0.16	0.28	0.28		0.12	0.24	0.24	
Volume/Cap:	0.04	0.04	0.04		0.40	0.13	0.11		0.04	0.51	0.51		0.07	0.45	0.45	
Delay/Veh:	21.1	21.1	21.1		23.2	21.5	21.4		21.1	18.8	18.8		23.8	20.4	20.4	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	21.1	21.1	21.1		23.2	21.5	21.4		21.1	18.8	18.8		23.8	20.4	20.4	
HCM2kAvg:	0	0	0		2	1	0		0	4	4		0	3	3	

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 French Camp Road/McDougald Boulevard

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: B[13.7]

Street Name:	McDougald Boulevard								French Camp Road							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	0	0 0	1	0	0	0 1	0	1	0	0 0	0	0	0	1 0
Volume Module: 7-8																
Base Vol:	0	0	0		95	0	13		14	324	0		0	172	29	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		95	0	13		14	324	0		0	172	29	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	0	0	0		100	0	14		15	341	0		0	181	31	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Final Vol.:	0	0	0		100	0	14		15	341	0		0	181	31	
Critical Gap Module:																
Critical Gp:	xxxxx	xxxx	xxxxx		6.4	xxxx	6.2		4.1	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
FollowUpTim:	xxxxx	xxxx	xxxxx		3.5	xxxx	3.3		2.2	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	xxxx	xxxx	xxxxx		567	xxxx	196		212	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Potent Cap.:	xxxx	xxxx	xxxxx		488	xxxx	850		1371	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Move Cap.:	xxxx	xxxx	xxxxx		484	xxxx	850		1371	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Volume/Cap:	xxxx	xxxx	xxxx		0.21	xxxx	0.02		0.01	xxxx	xxxx		xxxx	xxxx	xxxx	
Level Of Service Module:																
Queue:	xxxxx	xxxx	xxxxx		0.8	xxxx	0.0		0.0	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Stopped Del:	xxxxx	xxxx	xxxxx		14.4	xxxx	9.3		7.7	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
LOS by Move:	*	*	*		B	*	A		A	*	*		*	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.0	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd StpDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		7.7	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*		*	*	*		A	*	*		*	*	*	
ApproachDel:	xxxxxx				13.7				xxxxxx				xxxxxx			
ApproachLOS:	*				B				*				*			

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #12 French Camp Road/Manthey Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.892
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 25.9
Optimal Cycle: 0 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0	0	1	0	0 1
Volume Module:																
Base Vol:	15	30	104		154	46	8		8	362	21		257	194	108	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	15	30	104		154	46	8		8	362	21		257	194	108	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	16	32	109		162	48	8		8	381	22		271	204	114	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	16	32	109		162	48	8		8	381	22		271	204	114	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	16	32	109		162	48	8		8	381	22		271	204	114	
Saturation Flow Module:																
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.10	0.20	0.70		0.74	0.22	0.04		0.02	0.93	0.05		0.57	0.43	1.00	
Final Sat.:	48	95	331		349	104	18		11	519	30		303	229	623	
Capacity Analysis Module:																
Vol/Sat:	0.33	0.33	0.33		0.46	0.46	0.46		0.73	0.73	0.73		0.89	0.89	0.18	
Crit Moves:			****				****			****				****		
Delay/Veh:	12.6	12.6	12.6		15.3	15.3	15.3		23.2	23.2	23.2		41.2	41.2	9.7	
Delay Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	12.6	12.6	12.6		15.3	15.3	15.3		23.2	23.2	23.2		41.2	41.2	9.7	
LOS by Move:	B	B	B		C	C	C		C	C	C		E	E	A	
ApproachDel:	12.6				15.3				23.2				35.1			
Delay Adj:	1.00				1.00				1.00				1.00			
ApprAdjDel:	12.6				15.3				23.2				35.1			
LOS by Appr:	B				C				C				E			

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #13 French Camp Road/I-5 SB Ramps

Average Delay (sec/veh): 5.7 Worst Case Level Of Service: B[14.6]

Street Name:	I-5 SB Ramps								French Camp Road							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	0	0 0	1	1	0	0 1	0	0	1	1 0	1	0	2	0 0
Volume Module:																
Base Vol:	0	0	0		265	1	289		0	407	243		64	247	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		265	1	289		0	407	243		64	247	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	0	0	0		279	1	304		0	428	256		67	260	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Final Vol.:	0	0	0		279	1	304		0	428	256		67	260	0	
Critical Gap Module:																
Critical Gp:	xxxxx	xxxx	xxxxx		6.8	6.5	6.9		xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	xxxxx	xxxx	xxxxx		3.5	4.0	3.3		xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	xxxx	xxxx	xxxxx		609	1079	130		xxxx	xxxx	xxxxx		684	xxxx	xxxxx	
Potent Cap.:	xxxx	xxxx	xxxxx		431	220	902		xxxx	xxxx	xxxxx		919	xxxx	xxxxx	
Move Cap.:	xxxx	xxxx	xxxxx		407	204	902		xxxx	xxxx	xxxxx		919	xxxx	xxxxx	
Volume/Cap:	xxxx	xxxx	xxxx		0.68	0.01	0.34		xxxx	xxxx	xxxx		0.07	xxxx	xxxx	
Level Of Service Module:																
Queue:	xxxxx	xxxx	xxxxx		1.5	xxxx	1.5		xxxxx	xxxx	xxxxx		0.2	xxxx	xxxxx	
Stopped Del:	xxxxx	xxxx	xxxxx		18.4	xxxx	11.0		xxxxx	xxxx	xxxxx		9.2	xxxx	xxxxx	
LOS by Move:	*	*	*		C	*	B		*	*	*		A	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		404	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		1.5	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd StpDel:	xxxxx	xxxx	xxxxx		18.6	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*		C	*	*		*	*	*		*	*	*	
ApproachDel:	xxxxxx				14.6				xxxxxx				xxxxxx			
ApproachLOS:	*				B				*				*			

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #14 French Camp Road/I-5 NB Ramps

Average Delay (sec/veh): 5.1 Worst Case Level Of Service: C[23.0]

Street Name:	I-5 NB Ramps									French Camp Road								
Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module:																				
Base Vol:	112		0		83	0		0		0	227		445		0	0		199		209
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	112		0		83	0		0		0	227		445		0	0		199		209
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95	
PHF Volume:	118		0		87	0		0		0	239		468		0	0		209		220
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Final Vol.:	118		0		87	0		0		0	239		468		0	0		209		220
Critical Gap Module:																				
Critical Gp:	6.8	xxxx			6.9	xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
FollowUpTim:	3.5	xxxx			3.3	xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Capacity Module:																				
Cnflict Vol:	1051	xxxx			234	xxxx	xxxx		xxxxx		429	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Potent Cap.:	226	xxxx			774	xxxx	xxxx		xxxxx		1141	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Move Cap.:	189	xxxx			774	xxxx	xxxx		xxxxx		1141	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Volume/Cap:	0.62	xxxx			0.11	xxxx	xxxx		xxxx		0.21	xxxx		xxxx		xxxx	xxxx		xxxx	
Level Of Service Module:																				
Queue:	1.3	xxxx			0.4	xxxxx	xxxx		xxxxx		0.8	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Stopped Del:	32.4	xxxx			10.2	xxxxx	xxxx		xxxxx		9.0	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
LOS by Move:	D		*		B	*	*		*		A		*		*	*		*		*
Movement:	LT -	LTR -		RT		LT -	LTR -		RT		LT -	LTR -		RT		LT -	LTR -		RT	
Shared Cap.:	189	xxxx	xxxxx			xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	
SharedQueue:	1.3	xxxx	xxxxx			xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shrd StpDel:	32.4	xxxx	xxxxx			xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shared LOS:	D		*		*	*	*		*		*	*		*		*	*		*	
ApproachDel:			23.0				xxxxxx					xxxxxx					xxxxxx			
ApproachLOS:			C				*					*					*			

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2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #15 French Camp Road/Val Dervin Parkway

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: D[26.1]

Street Name:	Val Dervin Parkway									French Camp Road								
Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	1	0	0	1	0	1	0
Volume Module:																				
Base Vol:	39		3		8	21		8		39	163		270		95	11		329		67
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	39		3		8	21		8		39	163		270		95	11		329		67
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95	
PHF Volume:	41		3		8	22		8		41	172		284		100	12		346		71
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Final Vol.:	41		3		8	22		8		41	172		284		100	12		346		71
Critical Gap Module:																				
Critical Gp:	7.5		6.5		6.9	7.5		6.5		6.9	4.1	xxxx		xxxxx		4.1	xxxx		xxxxx	
FollowUpTim:	3.5		4.0		3.3	3.5		4.0		3.3	2.2	xxxx		xxxxx		2.2	xxxx		xxxxx	
Capacity Module:																				
Cnflict Vol:	878	1117			192	892	1132			208	417	xxxx		xxxxx		384	xxxx		xxxxx	
Potent Cap.:	246		209		823	240		205		804	1153	xxxx		xxxxx		1185	xxxx		xxxxx	
Move Cap.:	197		176		823	206		173		804	1153	xxxx		xxxxx		1185	xxxx		xxxxx	
Volume/Cap:	0.21	0.02		0.01		0.11	0.05			0.05	0.15	xxxx		xxxx		0.01	xxxx		xxxx	
Level Of Service Module:																				
Queue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		0.5	xxxx		xxxxx		0.0	xxxx		xxxxx	
Stopped Del:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		8.7	xxxx		xxxxx		8.1	xxxx		xxxxx	
LOS by Move:	*		*		*	*		*		*	A		*		*	A		*		*
Movement:	LT -	LTR -		RT		LT -	LTR -		RT		LT -	LTR -		RT		LT -	LTR -		RT	
Shared Cap.:	xxxx	223	xxxxx			xxxx	346	xxxxx			xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	
SharedQueue:	xxxxx	0.9	xxxxx			xxxxx	0.8	xxxxx			xxxxx	xxxx		xxxxx		0.0	xxxx		xxxxx	
Shrd StpDel:	xxxxx	26.1	xxxxx			xxxxx	18.1	xxxxx			xxxxx	xxxx		xxxxx		8.1	xxxx		xxxxx	
Shared LOS:	*		D		*	*		C		*	*		*		*	A		*		*
ApproachDel:			26.1					18.1				xxxxxx					xxxxxx			
ApproachLOS:			D					C				*					*			

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2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #16 Yettner Road/ S. Manthey Road

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: B[11.7]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0	1	0	0	0	0	0	1	0	0	0	1!	0	0	0	0
Volume Module:																
Base Vol:	2	147	0		0	338		1	6		0	1	0		0	0
Growth Adj:	1.00	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
Initial Bse:	2	147	0		0	338		1	6		0	1	0		0	0
User Adj:	1.00	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
PHF Adj:	0.95	0.95	0.95		0.95	0.95		0.95	0.95		0.95	0.95	0.95		0.95	0.95
PHF Volume:	2	155	0		0	356		1	6		0	1	0		0	0
Reduct Vol:	0	0	0		0	0		0	0		0	0	0		0	0
Final Vol.:	2	155	0		0	356		1	6		0	1	0		0	0
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx			6.4	xxxx		6.2	xxxxx	xxxx	xxxxx	
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx			3.5	xxxx		3.3	xxxxx	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	357	xxxx	xxxxx	xxxx	xxxx	xxxxx			515	xxxx		356	xxxx	xxxx	xxxxx	
Potent Cap.:	1213	xxxx	xxxxx	xxxx	xxxx	xxxxx			523	xxxx		692	xxxx	xxxx	xxxxx	
Move Cap.:	1213	xxxx	xxxxx	xxxx	xxxx	xxxxx			522	xxxx		692	xxxx	xxxx	xxxxx	
Volume/Cap:	0.00	xxxx	xxxx	xxxx	xxxx	xxxx			0.01	xxxx		0.00	xxxx	xxxx	xxxx	
Level Of Service Module:																
Queue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Stopped Del:	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*				
Movement:	LT - LTR - RT				LT - LTR - RT				LT - LTR - RT				LT - LTR - RT			
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	541	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxx	xxxxx				
Shrd StpDel:	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	11.7	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	A	*	*	*	*	*	*	B	*	*	*	*				
ApproachDel:	xxxxxx			xxxxxx				11.7			xxxxxx					
ApproachLOS:	*			*				B			*					

Weston Ranch Towne Center EIR
Existing
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #17 Mathews Road/South Manthey Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.591
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 11.6
Optimal Cycle: 0 Level Of Service: B

Street Name:	South Manthey Road								Mathews Road							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0	0	0	1	0
Volume Module: 715-815																
Base Vol:	12	12	24		19	9	20		6	152	14		20	406	95	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	12	12	24		19	9	20		6	152	14		20	406	95	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	13	13	25		20	9	21		6	160	15		21	427	100	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	13	13	25		20	9	21		6	160	15		21	427	100	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	13	13	25		20	9	21		6	160	15		21	427	100	
Saturation Flow Module:																
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.25	0.25	0.50		0.39	0.19	0.42		1.00	0.92	0.08		1.00	1.00	1.00	
Final Sat.:	154	154	309		242	114	254		612	622	57		656	724	840	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.08	0.08		0.08	0.08	0.08		0.01	0.26	0.26		0.03	0.59	0.12	
Crit Moves:		****				****				****				****		
Delay/Veh:	8.7	8.7	8.7		8.8	8.8	8.8		8.5	9.6	9.6		8.3	14.3	7.5	
Delay Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	8.7	8.7	8.7		8.8	8.8	8.8		8.5	9.6	9.6		8.3	14.3	7.5	
LOS by Move:	A	A	A		A	A	A		A	A	A		A	B	A	
ApproachDel:	8.7				8.8				9.6				12.8			
Delay Adj:	1.00				1.00				1.00				1.00			
ApprAdjDel:	8.7				8.8				9.6				12.8			
LOS by Appr:	A				A				A				B			

Weston Ranch Towne Center EIR
Existing
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #18 Mathews Road/I-5 SB Ramps

Average Delay (sec/veh): 6.0 Worst Case Level Of Service: B[12.4]

Street Name:	I-5 SB Ramps									Mathews Road							
Approach:	North Bound					South Bound				East Bound					West Bound		
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	1	0	1	0	0
Volume Module: 715-815																				
Base Vol:	0	0	0			94	0	288			0	153		33		19	233		0	
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	0	0	0			94	0	288			0	153		33		19	233		0	
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95		0.95		0.95	0.95		0.95	
PHF Volume:	0	0	0			99	0	303			0	161		35		20	245		0	
Reduct Vol:	0	0	0			0	0	0			0	0		0		0	0		0	
Final Vol.:	0	0	0			99	0	303			0	161		35		20	245		0	
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			6.4	xxxx	6.2			xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx	
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	xxxx	3.3			xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx	
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			464	xxxx	245			xxxx	xxxx		xxxxx		196	xxxx		xxxxx	
Potent Cap.:	xxxx	xxxx	xxxxx			560	xxxx	798			xxxx	xxxx		xxxxx		1389	xxxx		xxxxx	
Move Cap.:	xxxx	xxxx	xxxxx			554	xxxx	798			xxxx	xxxx		xxxxx		1389	xxxx		xxxxx	
Volume/Cap:	xxxx	xxxx	xxxx			0.18	xxxx	0.38			xxxx	xxxx		xxxx		0.01	xxxx		xxxx	
Level Of Service Module:																				
Queue:	xxxxx	xxxx	xxxxx			0.6	xxxx	xxxxx			xxxxx	xxxx		xxxxx		0.0	xxxx		xxxxx	
Stopped Del:	xxxxx	xxxx	xxxxx			12.9	xxxx	xxxxx			xxxxx	xxxx		xxxxx		7.6	xxxx		xxxxx	
LOS by Move:	*	*	*			B	*	*			*	*		*		A	*		*	
Movement:	LT -	LTR -	RT			LT -	LTR -	RT			LT -	LTR -		RT		LT -	LTR -		RT	
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	798			xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	1.8			xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shrd StpDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	12.2			xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shared LOS:	*	*	*			*	*	B			*	*		*		*	*		*	
ApproachDel:	xxxxxx					12.4					xxxxxx					xxxxxx				
ApproachLOS:	*					B					*					*				

Weston Ranch Towne Center EIR
Existing
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #19 Mathews Road/I-5 NB Ramps

Average Delay (sec/veh): 4.6 Worst Case Level Of Service: B[13.7]

Street Name:	I-5 NB Ramps									Mathews Road							
Approach:	North Bound					South Bound				East Bound					West Bound		
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0
Volume Module: 715-815																				
Base Vol:	120	1	30			0	0	0			85	162		0		0	132		66	
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	120	1	30			0	0	0			85	162		0		0	132		66	
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95		0.95		0.95	0.95		0.95	
PHF Volume:	126	1	32			0	0	0			89	171		0		0	139		69	
Reduct Vol:	0	0	0			0	0	0			0	0		0		0	0		0	
Final Vol.:	126	1	32			0	0	0			89	171		0		0	139		69	
Critical Gap Module:																				
Critical Gp:	6.4	6.5	6.2			xxxxx	xxxx	xxxxx			4.1	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
FollowUpTim:	3.5	4.0	3.3			xxxxx	xxxx	xxxxx			2.2	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Capacity Module:																				
Cnflict Vol:	523	558	171			xxxx	xxxx	xxxxx			208	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Potent Cap.:	518	441	879			xxxx	xxxx	xxxxx			1375	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Move Cap.:	492	412	879			xxxx	xxxx	xxxxx			1375	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Volume/Cap:	0.26	0.00	0.04			xxxx	xxxx	xxxx			0.07	xxxx		xxxx		xxxx	xxxx		xxxx	
Level Of Service Module:																				
Queue:	1.0	xxxx	xxxxx			xxxxx	xxxx	xxxxx			0.2	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Stopped Del:	14.8	xxxx	xxxxx			xxxxx	xxxx	xxxxx			7.8	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
LOS by Move:	B	*	*			*	*	*			A	*		*		*	*		*	
Movement:	LT -	LTR -	RT			LT -	LTR -	RT			LT -	LTR -		RT		LT -	LTR -		RT	
Shared Cap.:	xxxx	xxxx	848			xxxx	xxxx	xxxxx			xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	
SharedQueue:	xxxxx	xxxx	0.1			xxxxx	xxxx	xxxxx			xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shrd StpDel:	xxxxx	xxxx	9.4			xxxxx	xxxx	xxxxx			xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shared LOS:	*	*	A			*	*	*			*	*		*		*	*		*	
ApproachDel:	13.7					xxxxxx					xxxxxx					xxxxxx				
ApproachLOS:	B					*					*					*				

Weston Ranch Towne Center EIR
Existing
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #20 Howard Road/ Wolfe Road

Average Delay (sec/veh): 2.7 Worst Case Level Of Service: A[9.4]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0
Volume Module:																
Base Vol:	3	3	12		2	8	37		2	53	4		6	116	1	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	3	3	12		2	8	37		2	53	4		6	116	1	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	3	3	13		2	8	39		2	56	4		6	122	1	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Final Vol.:	3	3	13		2	8	39		2	56	4		6	122	1	
Critical Gap Module:																
Critical Gp:	7.1	6.5	6.2		7.1	6.5	6.2		4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3		3.5	4.0	3.3		2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	221	198	58		205	199	123		123	xxxx	xxxxx		60	xxxx	xxxxx	
Potent Cap.:	739	701	1014		757	700	934		1476	xxxx	xxxxx		1556	xxxx	xxxxx	
Move Cap.:	699	698	1014		742	696	934		1476	xxxx	xxxxx		1556	xxxx	xxxxx	
Volume/Cap:	0.00	0.00	0.01		0.00	0.01	0.04		0.00	xxxx	xxxx		0.00	xxxx	xxxx	
Level Of Service Module:																
Queue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.0	xxxx	xxxxx		0.0	xxxx	xxxxx	
Stopped Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		7.4	xxxx	xxxxx		7.3	xxxx	xxxxx	
LOS by Move:	*	*	*		*	*	*		A	*	*		A	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	881	xxxxx	xxxx	873	xxxxx			xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	0.2	xxxxx			xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd StpDel:	xxxxx	9.2	xxxxx	xxxxx	9.4	xxxxx			xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	A	*	*	A	*	*	*	*	*	*		*	*	*	
ApproachDel:		9.2			9.4				xxxxxx				xxxxxx			
ApproachLOS:		A			A				*				*			

Weston Ranch Towne Center EIR
Existing
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #21 French Camp Road/Seconday Project Driveway

Cycle (sec): 100 Critical Vol./Cap. (X): 0.000
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 0.0
Optimal Cycle: 0 Level Of Service:

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0
Volume Module:																
Base Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Growth Adj:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Initial Bse:	0	0	0		0	0	0		0	0	0		0	0	0	
User Adj:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
PHF Adj:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
PHF Volume:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PCE Adj:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
MLF Adj:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Final Vol.:	0	0	0		0	0	0		0	0	0		0	0	0	
Saturation Flow Module:																
Sat/Lane:	0	0	0		0	0	0		0	0	0		0	0	0	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Final Sat.:	0	0	0		0	0	0		0	0	0		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Crit Moves:																
Green/Cycle:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Volume/Cap:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Delay/Veh:	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
HCM2kAvg:	0	0	0		0	0	0		0	0	0		0	0	0	

Weston Ranch Towne Center EIR
Existing
PM Peak Hour

Scenario Report

Scenario:	Existing PM
Command:	Existing PM
Volume:	Existing PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	No Project
Trip Distribution:	Existing
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Weston Ranch Towne Center EIR
Existing
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Carolyn Weston Boulevard/McDougald Boulevard

Cycle (sec):	60	Critical Vol./Cap. (X):	0.455
Loss Time (sec):	16 (Y+R = 5 sec)	Average Delay (sec/veh):	17.1
Optimal Cycle:	50	Level Of Service:	B

Street Name:	/McDougald Boulevard						Carolyn Weston Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0 1 0 1			1 0 0 1 0			1 0 1 1 0			1 0 1 1 0		
Volume Module: 5-6												
Base Vol:	5	4	110	20	3	0	0	397	7	227	700	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	4	110	20	3	0	0	397	7	227	700	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	5	4	116	21	3	0	0	418	7	239	737	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	4	116	21	3	0	0	418	7	239	737	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	5	4	116	21	3	0	0	418	7	239	737	19
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95
Lanes:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.97	0.03	1.00	1.95	0.05
Final Sat.:	1805	1900	1615	1805	1900	0	1900	3537	62	1805	3505	90
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.07	0.01	0.00	0.00	0.00	0.12	0.12	0.13	0.21	0.21
Crit Moves:			****	****				****		****		
Green/Cycle:	0.12	0.17	0.17	0.12	0.17	0.00	0.00	0.21	0.21	0.24	0.45	0.45
Volume/Cap:	0.02	0.01	0.43	0.10	0.01	0.00	0.00	0.56	0.56	0.56	0.47	0.47
Delay/Veh:	23.5	20.9	23.5	23.9	20.9	0.0	0.0	22.0	22.0	21.7	11.7	11.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.5	20.9	23.5	23.9	20.9	0.0	0.0	22.0	22.0	21.7	11.7	11.7
HCM2kAvg:	0	0	2	0	0	0	0	4	4	5	4	4

Weston Ranch Towne Center EIR
Existing
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Carolyn Weston Boulevard/S. Manthey Road

Cycle (sec): 80 Critical Vol./Cap. (X): 0.552
Loss Time (sec): 12 (Y+R = 5 sec) Average Delay (sec/veh): 17.7
Optimal Cycle: 43 Level Of Service: B

Street Name:	S. Manthey Road						Carolyn Weston Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module: 5-6												
Base Vol:	191	0	156	0	0	0	0	523	78	324	750	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	191	0	156	0	0	0	0	523	78	324	750	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	201	0	164	0	0	0	0	551	82	341	789	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	201	0	164	0	0	0	0	551	82	341	789	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	201	0	164	0	0	0	0	551	82	341	789	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.85	1.00	1.00	1.00	1.00	0.93	0.93	0.95	0.95	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	1.74	0.26	1.00	2.00	0.00
Final Sat.:	3502	0	1615	0	0	0	0	3082	460	1805	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.10	0.00	0.00	0.00	0.00	0.18	0.18	0.19	0.22	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.18	0.00	0.18	0.00	0.00	0.00	0.00	0.32	0.32	0.34	0.67	0.00
Volume/Cap:	0.31	0.00	0.55	0.00	0.00	0.00	0.00	0.55	0.55	0.55	0.33	0.00
Delay/Veh:	28.5	0.0	31.9	0.0	0.0	0.0	0.0	22.9	22.9	22.4	5.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.5	0.0	31.9	0.0	0.0	0.0	0.0	22.9	22.9	22.4	5.8	0.0
HCM2kAvg:	2	0	4	0	0	0	0	6	6	7	2	0

Weston Ranch Towne Center EIR
Existing
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Downing Avenue/French Camp Turnpike

Average Delay (sec/veh): 5.7 Worst Case Level Of Service: C[17.7]

Street Name:	French Camp Turnpike						Downing Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0	1 0	0 1	0
Volume Module: 4-5												
Base Vol:	126	5	4	11	11	65	52	127	76	1	174	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	126	5	4	11	11	65	52	127	76	1	174	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	133	5	4	12	12	68	55	134	80	1	183	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	133	5	4	12	12	68	55	134	80	1	183	8
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	513	477	174	477	513	187	192	xxxx	xxxxx	214	xxxx	xxxxx
Potent Cap.:	475	490	875	501	468	860	1394	xxxx	xxxxx	1368	xxxx	xxxxx
Move Cap.:	416	471	875	480	449	860	1394	xxxx	xxxxx	1368	xxxx	xxxxx
Volume/Cap:	0.32	0.01	0.00	0.02	0.03	0.08	0.04	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx	7.6	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	424	xxxxx	xxxx	707	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.5	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	17.7	xxxxx	xxxxx	10.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	B	*	*	*	*	*	*	*
ApproachDel:	17.7			10.8			xxxxxx			xxxxxx		
ApproachLOS:	C			B			*			*		

Existing
3: Downing Avenue & I-5 SB Ramps

PM Peak Hour
3/3/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95						1.00	0.88
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		5085	1583	1770	3539						1770	2787
Flt Permitted		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (perm)		5085	1583	1770	3539						1770	2787
Volume (vph)	0	589	91	12	400	0	0	0	0	118	0	681
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	620	96	13	421	0	0	0	0	124	0	717
RTOR Reduction (vph)	0	0	37	0	0	0	0	0	0	0	0	351
Lane Group Flow (vph)	0	620	59	13	421	0	0	0	0	0	124	366
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		42.9	42.9	1.2	48.1						13.9	13.9
Effective Green, g (s)		42.9	42.9	1.2	48.1						13.9	13.9
Actuated g/C Ratio		0.61	0.61	0.02	0.69						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)		3116	970	30	2432						351	553
v/s Ratio Prot		c0.12		c0.01	0.12							
v/s Ratio Perm			0.04								0.07	c0.13
v/c Ratio		0.20	0.06	0.43	0.17						0.35	0.66
Uniform Delay, d1		6.0	5.4	34.1	3.9						24.2	25.9
Progression Factor		1.00	1.00	0.64	0.94						1.00	1.00
Incremental Delay, d2		0.1	0.1	9.4	0.2						0.6	3.0
Delay (s)		6.1	5.6	31.2	3.8						24.8	28.9
Level of Service		A	A	C	A						C	C
Approach Delay (s)		6.0			4.6			0.0			28.3	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM Average Control Delay	15.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Existing
4: Downing Avenue & I-5 NB Ramps

PM Peak Hour
3/3/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	0.97	1.00			0.95			1.00	1.00			
Frt	1.00	1.00			0.95			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (prot)	3433	1863			3345			1776	1583			
Flt Permitted	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (perm)	3433	1863			3345			1776	1583			
Volume (vph)	484	223	0	0	231	133	181	5	32	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)	509	235	0	0	243	140	191	5	34	0	0	0
RTOR Reduction (vph)	0	0	0	0	79	0	0	0	28	0	0	0
Lane Group Flow (vph)	509	235	0	0	304	0	0	196	6	0	0	0
Turn Type	Prot						Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	14.9	49.6			30.7			12.4	12.4			
Effective Green, g (s)	14.9	49.6			30.7			12.4	12.4			
Actuated g/C Ratio	0.21	0.71			0.44			0.18	0.18			
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)	731	1320			1467			315	280			
v/s Ratio Prot	c0.15	0.13			c0.09							
v/s Ratio Perm								0.11	0.00			
v/c Ratio	0.70	0.18			0.21			0.62	0.02			
Uniform Delay, d1	25.5	3.4			12.1			26.6	23.8			
Progression Factor	0.81	0.73			1.00			1.00	1.00			
Incremental Delay, d2	2.9	0.3			0.3			3.8	0.0			
Delay (s)	23.5	2.8			12.5			30.4	23.8			
Level of Service	C	A			B			C	C			
Approach Delay (s)		16.9			12.5			29.5			0.0	
Approach LOS		B			B			C			A	

Intersection Summary			
HCM Average Control Delay	17.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Weston Ranch Towne Center EIR
Existing
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 William Moss Boulevard/McDougald Boulevard

Cycle (sec): 60 Critical Vol./Cap. (X): 0.163
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 19.0
Optimal Cycle: 50 Level Of Service: B

Street Name:	McDougald Boulevard						William Moss Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0 1 1 0			1 0 1 1 0			1 0 1 1 0			1 0 1 1 0		
Volume Module: 445-545												
Base Vol:	9	85	77	8	41	38	29	148	14	28	125	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	85	77	8	41	38	29	148	14	28	125	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	9	89	81	8	43	40	31	156	15	29	132	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	89	81	8	43	40	31	156	15	29	132	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	9	89	81	8	43	40	31	156	15	29	132	7
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.88	0.88	0.95	0.88	0.88	0.95	0.94	0.94	0.95	0.94	0.94
Lanes:	1.00	1.05	0.95	1.00	1.04	0.96	1.00	1.83	0.17	1.00	1.89	0.11
Final Sat.:	1805	1760	1594	1805	1739	1611	1805	3255	308	1805	3391	190
Capacity Analysis Module:												
Vol/Sat:	0.01	0.05	0.05	0.00	0.02	0.02	0.02	0.05	0.05	0.02	0.04	0.04
Crit Moves:		****		****				****		****		
Green/Cycle:	0.15	0.26	0.26	0.12	0.22	0.22	0.15	0.24	0.24	0.12	0.21	0.21
Volume/Cap:	0.03	0.20	0.20	0.04	0.11	0.11	0.11	0.20	0.20	0.14	0.18	0.18
Delay/Veh:	21.6	17.5	17.5	23.6	18.8	18.8	22.4	18.2	18.2	24.1	19.5	19.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.6	17.5	17.5	23.6	18.8	18.8	22.4	18.2	18.2	24.1	19.5	19.5
HCM2kAvg:	0	1	1	0	1	1	1	1	1	1	1	1

Weston Ranch Towne Center EIR
Existing
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 William Moss Boulevard/S. Manthey Road

Cycle (sec): 60 Critical Vol./Cap. (X): 0.298
Loss Time (sec): 12 (Y+R = 5 sec) Average Delay (sec/veh): 14.1
Optimal Cycle: 39 Level Of Service: B

Street Name:							William Moss Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0 1 0 0			0 0 0 1 0			1 0 0 0 1			0 0 0 0 0		
Volume Module: 5-6												
Base Vol:	79	177	0	0	110	155	155	0	51	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	79	177	0	0	110	155	155	0	51	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	83	186	0	0	116	163	163	0	54	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	83	186	0	0	116	163	163	0	54	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	83	186	0	0	116	163	163	0	54	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.92	0.92	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.42	0.58	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	726	1024	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.10	0.00	0.00	0.16	0.16	0.09	0.00	0.03	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.12	0.56	0.00	0.00	0.43	0.43	0.24	0.00	0.24	0.00	0.00	0.00
Volume/Cap:	0.37	0.18	0.00	0.00	0.37	0.37	0.37	0.00	0.14	0.00	0.00	0.00
Delay/Veh:	25.1	6.6	0.0	0.0	11.9	11.9	19.4	0.0	17.9	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.1	6.6	0.0	0.0	11.9	11.9	19.4	0.0	17.9	0.0	0.0	0.0
HCM2kAvg:	2	1	0	0	3	3	3	0	1	0	0	0

Weston Ranch Towne Center EIR
Existing
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #8 Henry Long Boulevard/McDougald Boulevard

Cycle (sec): 100 Critical Vol./Cap. (X): 0.181
Loss Time (sec): 0 (Y+R = 5 sec) Average Delay (sec/veh): 8.6
Optimal Cycle: 0 Level Of Service: A

Street Name:	McDougald Boulevard						Henry Long Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 1	0 0	0	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	51	34	0	4	21	49	31	57	40	2	89	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	51	34	0	4	21	49	31	57	40	2	89	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	54	36	0	4	22	52	33	60	42	2	94	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	36	0	4	22	52	33	60	42	2	94	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	54	36	0	4	22	52	33	60	42	2	94	33
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.60	0.40	0.00	1.00	0.30	0.70	1.00	0.59	0.41	0.02	0.73	0.25
Final Sat.:	388	258	0	603	217	506	632	431	303	12	517	180
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	xxxx	0.01	0.10	0.10	0.05	0.14	0.14	0.18	0.18	0.18
Crit Moves:		****				****			****		****	
Delay/Veh:	9.2	9.2	0.0	8.5	7.9	7.9	8.5	8.2	8.2	9.0	9.0	9.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.2	9.2	0.0	8.5	7.9	7.9	8.5	8.2	8.2	9.0	9.0	9.0
LOS by Move:	A	A	*	A	A	A	A	A	A	A	A	A
ApproachDel:	9.2			8.0			8.3			9.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.2			8.0			8.3			9.0		
LOS by Appr:	A			A			A			A		

Weston Ranch Towne Center EIR
Existing
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Henry Long Boulevard/Manthey Road

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: B[10.7]

Street Name:	Manthey Road						Henry Long Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	0 0	0	0 0	0 1	0	0 0	1! 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	83	229	0	0	123	29	22	0	47	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	83	229	0	0	123	29	22	0	47	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	87	241	0	0	129	31	23	0	49	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	87	241	0	0	129	31	23	0	49	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	160	xxxx	xxxxx	xxxx	xxxx	xxxxx	561	xxxx	145	xxxx	xxxx	xxxxx
Potent Cap.:	1432	xxxx	xxxxx	xxxx	xxxx	xxxxx	493	xxxx	908	xxxx	xxxx	xxxxx
Move Cap.:	1432	xxxx	xxxxx	xxxx	xxxx	xxxxx	468	xxxx	908	xxxx	xxxx	xxxxx
Volume/Cap:	0.06	xxxx	xxxx	xxxx	xxxx	xxxx	0.05	xxxx	0.05	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	699	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	10.7	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	B	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx				10.7			xxxxxx	
ApproachLOS:	*			*				B			*	

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Wolfe Road / French Camp Road

Cycle (sec): 60 Critical Vol./Cap. (X): 0.414
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 23.6
Optimal Cycle: 53 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	1! 0	0	1 0	1 0	1	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	31	131	50	56	10	7	4	112	2	12	218	83
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	31	131	50	56	10	7	4	112	2	12	218	83
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	33	138	53	59	11	7	4	118	2	13	229	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	138	53	59	11	7	4	118	2	13	229	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	33	138	53	59	11	7	4	118	2	13	229	87
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.96	0.96	0.96	0.95	1.00	0.85	0.95	1.00	1.00	0.95	0.96	0.96
Lanes:	0.15	0.62	0.23	1.00	1.00	1.00	1.00	0.98	0.02	1.00	0.72	0.28
Final Sat.:	267	1129	431	1805	1900	1615	1805	1861	33	1805	1320	502
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.12	0.03	0.01	0.00	0.00	0.06	0.06	0.01	0.17	0.17
Crit Moves:		****			****		****				****	
Green/Cycle:	0.19	0.19	0.19	0.17	0.17	0.17	0.12	0.22	0.22	0.16	0.26	0.26
Volume/Cap:	0.66	0.66	0.66	0.20	0.03	0.03	0.02	0.28	0.28	0.04	0.66	0.66
Delay/Veh:	27.3	27.3	27.3	21.9	21.0	21.0	23.5	19.6	19.6	21.5	23.0	23.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.3	27.3	27.3	21.9	21.0	21.0	23.5	19.6	19.6	21.5	23.0	23.0
HCM2kAvg:	5	5	5	1	0	0	0	2	2	0	6	6

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 French Camp Road/McDougald Boulevard

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: B[12.8]

Street Name:	McDougald Boulevard						French Camp Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 0	0	1 0	0 0	1	0 1	0 0	0	0 0	0 1	0
Volume Module: >> Count Date: 21 May 2003 << 5-6												
Base Vol:	0	0	0	64	0	8	11	176	0	0	276	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	64	0	8	11	176	0	0	276	64
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	67	0	8	12	185	0	0	291	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	67	0	8	12	185	0	0	291	67
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	533	xxxx	324	358	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	511	xxxx	721	1212	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	507	xxxx	721	1212	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.13	xxxx	0.01	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	0.5	xxxx	0.0	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	13.2	xxxx	10.0	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	B	A	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			12.8			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Weston Ranch Towne Center EIR
Existing
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #12 French Camp Road/Manthey Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.835
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 23.5
Optimal Cycle: 0 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	30	91	282	103	51	11	14	226	9	96	302	186
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	91	282	103	51	11	14	226	9	96	302	186
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	32	96	297	108	54	12	15	238	9	101	318	196
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	96	297	108	54	12	15	238	9	101	318	196
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	32	96	297	108	54	12	15	238	9	101	318	196
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.07	0.23	0.70	0.62	0.31	0.07	0.06	0.91	0.03	0.24	0.76	1.00
Final Sat.:	41	125	386	270	134	29	27	433	17	121	381	567
Capacity Analysis Module:												
Vol/Sat:	0.77	0.77	0.77	0.40	0.40	0.40	0.55	0.55	0.55	0.83	0.83	0.35
Crit Moves:		****			****			****			****	
Delay/Veh:	25.4	25.4	25.4	14.5	14.5	14.5	17.2	17.2	17.2	34.6	34.6	12.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.4	25.4	25.4	14.5	14.5	14.5	17.2	17.2	17.2	34.6	34.6	12.1
LOS by Move:	D	D	D	B	B	B	C	C	C	D	D	B
ApproachDel:		25.4			14.5			17.2			27.5	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		25.4			14.5			17.2			27.5	
LOS by Appr:		D			B			C			D	

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #13 French Camp Road/I-5 SB Ramps

Average Delay (sec/veh): 5.4 Worst Case Level Of Service: C[18.6]

Street Name:	I-5 SB Ramps						French Camp Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 0	0	1 1	0 0	1	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	209	1	180	0	469	93	67	434	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	209	1	180	0	469	93	67	434	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	220	1	189	0	494	98	71	457	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	220	1	189	0	494	98	71	457	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	845	1189	228	xxxx	xxxx	xxxxx	592	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	306	189	780	xxxx	xxxx	xxxxx	994	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	289	176	780	xxxx	xxxx	xxxxx	994	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.76	0.01	0.24	xxxx	xxxx	xxxx	0.07	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	1.7	xxxx	0.9	xxxxx	xxxx	xxxxx	0.2	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	24.9	xxxx	11.1	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx
LOS by Move:	*	*	*	C	*	B	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	287	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	1.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	25.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	D	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			18.6			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #14 French Camp Road/I-5 NB Ramps

Average Delay (sec/veh): 24.8 Worst Case Level Of Service: F[109.8]

Street Name:	I-5 NB Ramps									French Camp Road								
Approach:	North Bound						South Bound			East Bound						West Bound		
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module:																				
Base Vol:	228		1		90	0		0		0	355		323		0	0		273		296
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	228		1		90	0		0		0	355		323		0	0		273		296
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95	
PHF Volume:	240		1		95	0		0		0	374		340		0	0		287		312
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Final Vol.:	240		1		95	0		0		0	374		340		0	0		287		312
Critical Gap Module:																				
Critical Gp:	6.8	6.5			6.9	xxxxx	xxxx	xxxxx			4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
FollowUpTim:	3.5	4.0			3.3	xxxxx	xxxx	xxxxx			2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Capacity Module:																				
Cnflict Vol:	1231	1686			170	xxxx	xxxx	xxxxx			599	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Potent Cap.:	172		95		851	xxxx	xxxx	xxxxx			988	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Move Cap.:	122		59		851	xxxx	xxxx	xxxxx			988	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Volume/Cap:	1.97	0.02			0.11	xxxx	xxxx	xxxx			0.38	xxxx	xxxx	xxxx	xxxx	xxxx				
Level Of Service Module:																				
Queue:	6.6	xxxx			0.4	xxxxx	xxxx	xxxxx			1.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Stopped Del:	146.2	xxxx			9.8	xxxxx	xxxx	xxxxx			10.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	F	*			A	*	*	*			B	*	*	*	*	*				
Movement:	LT -	LTR -			RT	LT -	LTR -			RT	LT -	LTR -			RT	LT -	LTR -			RT
Shared Cap.:	121	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	6.8	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd StpDel:	152.0	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	F	*		*		*	*		*		*	*		*		*	*		*	
ApproachDel:	109.8					xxxxxx					xxxxxx					xxxxxx				
ApproachLOS:	F					*					*					*				

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #15 French Camp Road/Val Dervin Parkway

Average Delay (sec/veh): 4.8 Worst Case Level Of Service: C[20.6]

Street Name:	Val Dervin Parkway									French Camp Road								
Approach:	North Bound						South Bound			East Bound						West Bound		
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	1	0	0	1	0	1	0
Volume Module:																				
Base Vol:	56		1		11	61		4		146	60		295		75	3		343		19
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	56		1		11	61		4		146	60		295		75	3		343		19
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95	
PHF Volume:	59		1		12	64		4		154	63		311		79	3		361		20
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Final Vol.:	59		1		12	64		4		154	63		311		79	3		361		20
Critical Gap Module:																				
Critical Gp:	7.5	6.5			6.9	7.5	6.5			6.9	4.1	xxxx	xxxxx			4.1	xxxx	xxxxx		
FollowUpTim:	3.5	4.0			3.3	3.5	4.0			3.3	2.2	xxxx	xxxxx			2.2	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	665	864			195	659	893			191	381	xxxx	xxxxx			389	xxxx	xxxxx		
Potent Cap.:	349	294			820	353	283			825	1188	xxxx	xxxxx			1180	xxxx	xxxxx		
Move Cap.:	269	278			820	332	267			825	1188	xxxx	xxxxx			1180	xxxx	xxxxx		
Volume/Cap:	0.22	0.00			0.01	0.19	0.02			0.19	0.05	xxxx	xxxx			0.00	xxxx	xxxx		
Level Of Service Module:																				
Queue:	xxxxx	xxxx			xxxxx	xxxxx	xxxx			xxxxx	0.2	xxxx	xxxxx			0.0	xxxx	xxxxx		
Stopped Del:	xxxxx	xxxx			xxxxx	xxxxx	xxxx			xxxxx	8.2	xxxx	xxxxx			8.1	xxxx	xxxxx		
LOS by Move:	*	*			*	*	*			*	A	*		*		A	*		*	
Movement:	LT -	LTR -			RT	LT -	LTR -			RT	LT -	LTR -			RT	LT -	LTR -			RT
Shared Cap.:	xxxx	302	xxxxx			xxxx	562	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	0.9	xxxxx			xxxxx	1.9	xxxxx			xxxxx	xxxx	xxxxx			0.0	xxxx	xxxxx		
Shrd StpDel:	xxxxx	20.6	xxxxx			xxxxx	15.5	xxxxx			xxxxx	xxxx	xxxxx			8.1	xxxx	xxxxx		
Shared LOS:	*	C		*		*	C		*		*	*		*		A	*		*	
ApproachDel:	20.6					15.5					xxxxxx					xxxxxx				
ApproachLOS:	C					C					*					*				

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #16 Yettner Road/ S. Manthey Road

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: B[11.6]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0	1	0	0 0	0	0	0	1 0	0	0	1!	0 0	0	0	0	0 0
Volume Module:																
Base Vol:	5	405		0	0	154		5	4		0	2	0		0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	405		0	0	154		5	4		0	2	0		0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	5	426		0	0	162		5	4		0	2	0		0	0
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
Final Vol.:	5	426		0	0	162		5	4		0	2	0		0	0
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx		6.4	xxxx		6.2	xxxxx	xxxx	xxxxx		
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx		3.5	xxxx		3.3	xxxxx	xxxx	xxxxx		
Capacity Module:																
Cnflict Vol:	167	xxxx	xxxxx	xxxx	xxxx	xxxxx		602	xxxx		165	xxxx	xxxx	xxxxx		
Potent Cap.:	1423	xxxx	xxxxx	xxxx	xxxx	xxxxx		466	xxxx		885	xxxx	xxxx	xxxxx		
Move Cap.:	1423	xxxx	xxxxx	xxxx	xxxx	xxxxx		465	xxxx		885	xxxx	xxxx	xxxxx		
Volume/Cap:	0.00	xxxx	xxxx	xxxx	xxxx	xxxx		0.01	xxxx		0.00	xxxx	xxxx	xxxx		
Level Of Service Module:																
Queue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Stopped Del:	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*				
Movement:	LT - LTR - RT				LT - LTR - RT				LT - LTR - RT				LT - LTR - RT			
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	552	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxx	xxxxx				
Shrd StpDel:	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	11.6	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	A	*	*	*	*	*	*	B	*	*	*	*				
ApproachDel:	xxxxxx			xxxxxx				11.6			xxxxxx					
ApproachLOS:	*			*				B			*					

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #17 Mathews Road/South Manthey Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.794
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 17.7
Optimal Cycle: 0 Level Of Service: C

Street Name:	South Manthey Road								Mathews Road							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10		10	7	10		10	7	10		10	7	10		10
Lanes:	0	0	1!	0 0	0	0	1!	0 0	1	0	0	1 0	1	0	1	0 1
Volume Module: 430-530																
Base Vol:	11	37		32	77		31	18	30	486		10	26	162		54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	37		32	77		31	18	30	486		10	26	162		54
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	12	39		34	81		33	19	32	512		11	27	171		57
Reduct Vol:	0	0		0	0		0	0	0	0		0	0	0		0
Reduced Vol:	12	39		34	81		33	19	32	512		11	27	171		57
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	12	39		34	81		33	19	32	512		11	27	171		57
Saturation Flow Module:																
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.14	0.46	0.40	0.61	0.25	0.14	1.00	0.98	0.02	1.00	1.00	1.00				
Final Sat.:	75	254	219	333	134	78	598	644	13	554	603	680				
Capacity Analysis Module:																
Vol/Sat:	0.15	0.15	0.15	0.24	0.24	0.24	0.05	0.79	0.79	0.05	0.28	0.08				
Crit Moves:			****		****				****		****					
Delay/Veh:	9.9	9.9	9.9	10.8	10.8	10.8	9.0	25.1	25.1	9.3	10.6	8.2				
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
AdjDel/Veh:	9.9	9.9	9.9	10.8	10.8	10.8	9.0	25.1	25.1	9.3	10.6	8.2				
LOS by Move:	A	A	A	B	B	B	A	D	D	A	B	A				
ApproachDel:	9.9			10.8			24.1			9.9						
Delay Adj:	1.00			1.00			1.00			1.00						
ApprAdjDel:	9.9			10.8			24.1			9.9						
LOS by Appr:	A			B			C			A						

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #18 Mathews Road/I-5 SB Ramps

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: B[12.9]

Street Name:	I-5 SB Ramps									Mathews Road								
Approach:	North Bound					South Bound				East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	1	0	1	0	0
Volume Module: 445-545																				
Base Vol:	0	0	0	0		85	1	115		0	503		93		18	126		0		
Growth Adj:	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00		1.00	1.00		1.00		
Initial Bse:	0	0	0	0		85	1	115		0	503		93		18	126		0		
User Adj:	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00		1.00	1.00		1.00		
PHF Adj:	0.95	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95		0.95		0.95	0.95		0.95		
PHF Volume:	0	0	0	0		89	1	121		0	529		98		19	133		0		
Reduct Vol:	0	0	0	0		0	0	0		0	0		0		0	0		0		
Final Vol.:	0	0	0	0		89	1	121		0	529		98		19	133		0		
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			6.4	6.5	6.2	xxxxx	xxxx	xxxxx				4.1	xxxx	xxxxx			
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	4.0	3.3	xxxxx	xxxx	xxxxx				2.2	xxxx	xxxxx			
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			749	798	133	xxxx	xxxx	xxxxx				627	xxxx	xxxxx			
Potent Cap.:	xxxx	xxxx	xxxxx			382	321	922	xxxx	xxxx	xxxxx				964	xxxx	xxxxx			
Move Cap.:	xxxx	xxxx	xxxxx			377	315	922	xxxx	xxxx	xxxxx				964	xxxx	xxxxx			
Volume/Cap:	xxxx	xxxx	xxxx			0.24	0.00	0.13	xxxx	xxxx	xxxx				0.02	xxxx	xxxx			
Level Of Service Module:																				
Queue:	xxxxx	xxxx	xxxxx			0.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx				0.1	xxxx	xxxxx			
Stopped Del:	xxxxx	xxxx	xxxxx			17.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx				8.8	xxxx	xxxxx			
LOS by Move:	*	*	*			C	*	*	*	*	*				A	*	*			
Movement:	LT -	LTR -	RT			LT -	LTR -	RT	LT -	LTR -	RT				LT -	LTR -	RT			
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	907	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	0.5	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shrd StpDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	9.6	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*			*	*	A	*	*	*				*	*	*			
ApproachDel:	xxxxxx					12.9			xxxxxx						xxxxxx					
ApproachLOS:	*					B			*						*					

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #19 Mathews Road/I-5 NB Ramps

Average Delay (sec/veh): 6.0 Worst Case Level Of Service: D[33.6]

Street Name:	I-5 NB Ramps									Mathews Road								
Approach:	North Bound					South Bound				East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0
Volume Module: 415-515																				
Base Vol:	56	1	8			0	0	0			356	232	0			0	88	147		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	56	1	8			0	0	0			356	232	0			0	88	147		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95		
PHF Volume:	59	1	8			0	0	0			375	244	0			0	93	155		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Final Vol.:	59	1	8			0	0	0			375	244	0			0	93	155		
Critical Gap Module:																				
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx				4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx				2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
Capacity Module:																				
Cnflict Vol:	1164	1241	244	xxxx	xxxx	xxxxx				247	xxxx	xxxxx	xxxx	xxxx	xxxxx					
Potent Cap.:	217	176	800	xxxx	xxxx	xxxxx				1330	xxxx	xxxxx	xxxx	xxxx	xxxxx					
Move Cap.:	170	127	800	xxxx	xxxx	xxxxx				1330	xxxx	xxxxx	xxxx	xxxx	xxxxx					
Volume/Cap:	0.35	0.01	0.01	xxxx	xxxx	xxxx				0.28	xxxx	xxxx	xxxx	xxxx	xxxx					
Level Of Service Module:																				
Queue:	1.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx				1.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
Stopped Del:	37.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx				8.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
LOS by Move:	E	*	*	*	*	*				A	*	*	*	*	*					
Movement:	LT -	LTR -	RT	LT -	LTR -	RT				LT -	LTR -	RT	LT -	LTR -	RT					
Shared Cap.:	xxxx	xxxx	503	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx					
SharedQueue:	xxxxx	xxxx	0.1	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
Shrd StpDel:	xxxxx	xxxx	12.3	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
Shared LOS:	*	*	B	*	*	*				*	*	*	*	*	*					
ApproachDel:	33.6			xxxxxx						xxxxxx					xxxxxx					
ApproachLOS:	D			*						*					*					

Weston Ranch Towne Center EIR
Existing
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #20 Howard Road/ Wolfe Road

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: B[14.8]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0
Volume Module:																
Base Vol:	5	8	7		4	5	6		137	333	7		10	50	2	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	5	8	7		4	5	6		137	333	7		10	50	2	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	5	8	7		4	5	6		144	351	7		11	53	2	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Final Vol.:	5	8	7		4	5	6		144	351	7		11	53	2	
Critical Gap Module:																
Critical Gp:	7.1	6.5	6.2		7.1	6.5	6.2		4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3		3.5	4.0	3.3		2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	723	718	354		725	721	54		55	xxxx	xxxxx		358	xxxx	xxxxx	
Potent Cap.:	344	357	694		343	356	1019		1563	xxxx	xxxxx		1212	xxxx	xxxxx	
Move Cap.:	310	318	694		305	317	1019		1563	xxxx	xxxxx		1212	xxxx	xxxxx	
Volume/Cap:	0.02	0.03	0.01		0.01	0.02	0.01		0.09	xxxx	xxxx		0.01	xxxx	xxxx	
Level Of Service Module:																
Queue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.3	xxxx	xxxxx		0.0	xxxx	xxxxx	
Stopped Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		7.5	xxxx	xxxxx		8.0	xxxx	xxxxx	
LOS by Move:	*	*	*		*	*	*		A	*	*		A	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	389	xxxxx		xxxx	432	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.2	xxxxx		xxxxx	0.1	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd StpDel:	xxxxx	14.8	xxxxx		xxxxx	13.7	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	B	*		*	B	*		*	*	*		*	*	*	
ApproachDel:	14.8				13.7				xxxxxx				xxxxxx			
ApproachLOS:	B				B				*				*			

Weston Ranch Towne Center EIR
Existing
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #21 French Camp Road/Seconday Project Driveway

Cycle (sec): 100 Critical Vol./Cap. (X): 0.000
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 0.0
Optimal Cycle: 0 Level Of Service:

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0
Volume Module:																
Base Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Growth Adj:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Initial Bse:	0	0	0		0	0	0		0	0	0		0	0	0	
User Adj:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
PHF Adj:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
PHF Volume:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PCE Adj:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
MLF Adj:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Final Vol.:	0	0	0		0	0	0		0	0	0		0	0	0	
Saturation Flow Module:																
Sat/Lane:	0	0	0		0	0	0		0	0	0		0	0	0	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Final Sat.:	0	0	0		0	0	0		0	0	0		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Crit Moves:																
Green/Cycle:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Volume/Cap:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Delay/Veh:	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
HCM2kAvg:	0	0	0		0	0	0		0	0	0		0	0	0	

NEAR-TERM

Weston Ranch Towne Center EIR
Near-Term Without Project
AM Peak Hour

Scenario Report

Scenario:	Exist+App AM
Command:	Ex+App AM
Volume:	Existing + Approved AM
Geometry:	Existing Plus Approved
Impact Fee:	Default Impact Fee
Trip Generation:	No Project
Trip Distribution:	Existing
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Weston Ranch Towne Center EIR
Near-Term Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Carolyn Weston Boulevard/McDougald Boulevard

Cycle (sec): 60 Critical Vol./Cap. (X): 0.644
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 24.4
Optimal Cycle: 54 Level Of Service: C

Street Name:	McDougald Boulevard						Carolyn Weston Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0 1	0	1	1 0	0	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module: 745-845												
Base Vol:	130	20	250	40	20	10	5	620	70	140	340	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	20	250	40	20	10	5	620	70	140	340	10
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	130	20	250	40	20	10	5	620	70	140	340	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	137	21	263	42	21	11	5	653	74	147	358	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	137	21	263	42	21	11	5	653	74	147	358	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	137	21	263	42	21	11	5	653	74	147	358	11
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.95	0.95	0.95	0.94	0.94	0.95	0.95	0.95
Lanes:	1.00	1.00	1.00	1.00	0.67	0.33	1.00	1.80	0.20	1.00	1.94	0.06
Final Sat.:	1805	1900	1615	1805	1203	602	1805	3195	361	1805	3493	103
Capacity Analysis Module:												
Vol/Sat:	0.08	0.01	0.16	0.02	0.02	0.02	0.00	0.20	0.20	0.08	0.10	0.10
Crit Moves:			****	****				****		****		
Green/Cycle:	0.14	0.22	0.22	0.12	0.20	0.20	0.16	0.28	0.28	0.12	0.23	0.23
Volume/Cap:	0.54	0.05	0.73	0.20	0.09	0.09	0.02	0.73	0.73	0.70	0.44	0.44
Delay/Veh:	26.5	18.4	29.4	24.4	19.7	19.7	21.1	22.5	22.5	35.5	20.1	20.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.5	18.4	29.4	24.4	19.7	19.7	21.1	22.5	22.5	35.5	20.1	20.1
HCM2kAvg:	3	0	6	1	0	0	0	8	8	4	3	3

Weston Ranch Towne Center EIR
Near-Term Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Carolyn Weston Boulevard/S. Manthey Road

Cycle (sec): 90 Critical Vol./Cap. (X): 0.444
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 20.9
Optimal Cycle: 50 Level Of Service: C

Street Name:	S. Manthey Road						Carolyn Weston Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module: 745-845												
Base Vol:	100	30	50	30	20	30	50	830	30	60	360	50
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	100	30	50	30	20	30	50	830	30	60	360	50
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	100	30	50	30	20	30	50	830	30	60	360	50
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	105	32	53	32	21	32	53	874	32	63	379	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	32	53	32	21	32	53	874	32	63	379	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	105	32	53	32	21	32	53	874	32	63	379	53
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.95	0.95	0.95	0.93	0.93
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.93	0.07	1.00	1.76	0.24
Final Sat.:	1805	1900	1615	1805	1900	1615	1805	3467	125	1805	3113	432
Capacity Analysis Module:												
Vol/Sat:	0.06	0.02	0.03	0.02	0.01	0.02	0.03	0.25	0.25	0.03	0.12	0.12
Crit Moves:	****					****		****		****		
Green/Cycle:	0.12	0.14	0.21	0.09	0.11	0.11	0.23	0.51	0.51	0.08	0.36	0.36
Volume/Cap:	0.49	0.12	0.15	0.18	0.10	0.18	0.13	0.49	0.49	0.45	0.34	0.34
Delay/Veh:	38.8	34.4	29.0	38.1	36.2	36.7	27.6	14.4	14.4	41.9	21.1	21.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.8	34.4	29.0	38.1	36.2	36.7	27.6	14.4	14.4	41.9	21.1	21.1
HCM2kAvg:	3	1	1	1	1	1	1	6	6	2	4	4

Weston Ranch Towne Center EIR
Near-Term Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Downing Avenue/French Camp Turnpike

Average Delay (sec/veh): 30.9 Worst Case Level Of Service: F[254.7]

Street Name:	French Camp Turnpike						Downing Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0	1 0	0 1	0
Volume Module: 730-830												
Base Vol:	110	10	10	30	10	90	150	270	140	100	320	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	110	10	10	30	10	90	150	270	140	100	320	20
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	110	10	10	30	10	90	150	270	140	100	320	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	116	11	11	32	11	95	158	284	147	105	337	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	116	11	11	32	11	95	158	284	147	105	337	21
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1284	1242	358	1242	1305	347	358	xxxx	xxxxx	432	xxxx	xxxxx
Potent Cap.:	143	176	691	153	162	700	1212	xxxx	xxxxx	1139	xxxx	xxxxx
Move Cap.:	97	139	691	119	127	700	1212	xxxx	xxxxx	1139	xxxx	xxxxx
Volume/Cap:	1.19	0.08	0.02	0.27	0.08	0.14	0.13	xxxx	xxxx	0.09	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	0.3	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.4	xxxx	xxxxx	8.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	107	xxxxx	xxxx	283	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	9.3	xxxxx	xxxxx	2.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	255	xxxxx	xxxxx	29.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	D	*	*	*	*	*	*	*
ApproachDel:	254.7			29.0			xxxxxx			xxxxxx		
ApproachLOS:	F			D			*			*		

Near-Term without Project
3: Downing Avenue & I-5 SB Ramps

AM Peak Hour
3/3/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95						1.00	0.88
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		5085	1583	1770	3539						1770	2787
Flt Permitted		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (perm)		5085	1583	1770	3539						1770	2787
Volume (vph)	0	790	140	30	250	0	0	0	0	430	0	330
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	832	147	32	263	0	0	0	0	453	0	347
RTOR Reduction (vph)	0	0	77	0	0	0	0	0	0	0	0	236
Lane Group Flow (vph)	0	832	70	32	263	0	0	0	0	0	453	111
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		33.3	33.3	2.4	39.7						22.3	22.3
Effective Green, g (s)		33.3	33.3	2.4	39.7						22.3	22.3
Actuated g/C Ratio		0.48	0.48	0.03	0.57						0.32	0.32
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)		2419	753	61	2007						564	888
v/s Ratio Prot		c0.16		c0.02	0.07							
v/s Ratio Perm			0.04								0.26	0.04
v/c Ratio		0.34	0.09	0.52	0.13						0.80	0.12
Uniform Delay, d1		11.5	10.1	33.2	7.1						21.8	16.9
Progression Factor		1.00	1.00	0.91	0.97						1.00	1.00
Incremental Delay, d2		0.4	0.2	7.7	0.1						8.1	0.1
Delay (s)		11.9	10.3	37.8	7.0						30.0	17.0
Level of Service		B	B	D	A						C	B
Approach Delay (s)		11.7			10.4			0.0			24.3	
Approach LOS		B			B			A			C	

Intersection Summary			
HCM Average Control Delay	16.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Near-Term without Project
4: Downing Avenue & I-5 NB Ramps

AM Peak Hour
3/3/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	0.97	1.00			0.95			1.00	1.00			
Frt	1.00	1.00			0.90			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.96	1.00			
Satd. Flow (prot)	3433	1863			3202			1783	1583			
Flt Permitted	0.95	1.00			1.00			0.96	1.00			
Satd. Flow (perm)	3433	1863			3202			1783	1583			
Volume (vph)	690	530	0	0	190	330	90	10	30	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)	726	558	0	0	200	347	95	11	32	0	0	0
RTOR Reduction (vph)	0	0	0	0	186	0	0	0	28	0	0	0
Lane Group Flow (vph)	726	558	0	0	361	0	0	106	4	0	0	0
Turn Type	Prot						Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	17.6	54.0			32.4			8.0	8.0			
Effective Green, g (s)	17.6	54.0			32.4			8.0	8.0			
Actuated g/C Ratio	0.25	0.77			0.46			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)	863	1437			1482			204	181			
v/s Ratio Prot	c0.21	c0.30			0.11							
v/s Ratio Perm								0.06	0.00			
v/c Ratio	0.84	0.39			0.24			0.52	0.02			
Uniform Delay, d1	24.9	2.6			11.4			29.2	27.5			
Progression Factor	1.16	1.20			1.00			1.00	1.00			
Incremental Delay, d2	7.0	0.7			0.4			2.2	0.0			
Delay (s)	35.9	3.9			11.8			31.4	27.6			
Level of Service	D	A			B			C	C			
Approach Delay (s)		22.0			11.8			30.5			0.0	
Approach LOS		C			B			C			A	

Intersection Summary			
HCM Average Control Delay	19.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Weston Ranch Towne Center EIR
Near-Term Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 William Moss Boulevard/McDougald Boulevard

Cycle (sec): 60 Critical Vol./Cap. (X): 0.280
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 20.1
Optimal Cycle: 50 Level Of Service: C

Street Name:	McDougald Boulevard						William Moss Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module: 745-845												
Base Vol:	10	170	70	50	90	110	70	50	10	60	110	90
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	170	70	50	90	110	70	50	10	60	110	90
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	170	70	50	90	110	70	50	10	60	110	90
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	11	179	74	53	95	116	74	53	11	63	116	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	179	74	53	95	116	74	53	11	63	116	95
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	11	179	74	53	95	116	74	53	11	63	116	95
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	0.91	0.95	0.87	0.87	0.95	0.93	0.93	0.95	0.89	0.89
Lanes:	1.00	1.42	0.58	1.00	1.00	1.00	1.00	1.67	0.33	1.00	1.10	0.90
Final Sat.:	1805	2445	1007	1805	1657	1657	1805	2933	587	1805	1852	1516
Capacity Analysis Module:												
Vol/Sat:	0.01	0.07	0.07	0.03	0.06	0.07	0.04	0.02	0.02	0.03	0.06	0.06
Crit Moves:		****		****			****				****	
Green/Cycle:	0.15	0.26	0.26	0.12	0.22	0.22	0.14	0.21	0.21	0.15	0.22	0.22
Volume/Cap:	0.04	0.29	0.29	0.25	0.26	0.32	0.29	0.08	0.08	0.24	0.29	0.29
Delay/Veh:	21.7	18.1	18.1	24.7	19.6	20.0	23.6	19.0	19.0	23.0	19.8	19.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.7	18.1	18.1	24.7	19.6	20.0	23.6	19.0	19.0	23.0	19.8	19.8
HCM2kAvg:	0	2	2	1	2	2	2	0	0	1	2	2

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 William Moss Boulevard/S. Manthey Road

Cycle (sec): 60 Critical Vol./Cap. (X): 0.165
Loss Time (sec): 12 (Y+R = 5 sec) Average Delay (sec/veh): 14.0
Optimal Cycle: 39 Level Of Service: B

Street Name:										William Moss Boulevard		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 0	0	0 0	0 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module: 7-8												
Base Vol:	30	40	0	0	90	20	140	0	80	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	40	0	0	90	20	140	0	80	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	40	0	0	90	20	140	0	80	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	32	42	0	0	95	21	147	0	84	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	42	0	0	95	21	147	0	84	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	32	42	0	0	95	21	147	0	84	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.98	0.98	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.82	0.18	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	1516	337	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.00	0.00	0.06	0.06	0.08	0.00	0.05	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.12	0.41	0.00	0.00	0.30	0.30	0.39	0.00	0.39	0.00	0.00	0.00
Volume/Cap:	0.15	0.05	0.00	0.00	0.21	0.21	0.21	0.00	0.13	0.00	0.00	0.00
Delay/Veh:	24.2	10.6	0.0	0.0	16.0	16.0	12.4	0.0	12.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.2	10.6	0.0	0.0	16.0	16.0	12.4	0.0	12.0	0.0	0.0	0.0
HCM2kAvg:	1	0	0	0	2	2	2	0	1	0	0	0

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8 Henry Long Boulevard/McDougald Boulevard

Cycle (sec): 100 Critical Vol./Cap. (X): 0.296
Loss Time (sec): 0 (Y+R = 5 sec) Average Delay (sec/veh): 9.8
Optimal Cycle: 0 Level Of Service: A

Street Name:	McDougald Boulevard						Henry Long Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	1! 0	0	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	40	30	10	20	50	110	90	120	70	10	100	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	30	10	20	50	110	90	120	70	10	100	30
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	30	10	20	50	110	90	120	70	10	100	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	42	32	11	21	53	116	95	126	74	11	105	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	32	11	21	53	116	95	126	74	11	105	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	42	32	11	21	53	116	95	126	74	11	105	32
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.50	0.37	0.13	1.00	0.31	0.69	1.00	0.63	0.37	0.07	0.72	0.21
Final Sat.:	286	215	72	550	203	446	590	427	249	45	448	134
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.15	0.04	0.26	0.26	0.16	0.30	0.30	0.23	0.23	0.23
Crit Moves:	****				****			****			****	
Delay/Veh:	9.8	9.8	9.8	9.2	9.6	9.6	9.7	9.9	9.9	10.1	10.1	10.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.8	9.8	9.8	9.2	9.6	9.6	9.7	9.9	9.9	10.1	10.1	10.1
LOS by Move:	A	A	A	A	A	A	A	A	A	B	B	B
ApproachDel:	9.8			9.6			9.8			10.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.8			9.6			9.8			10.1		
LOS by Appr:	A			A			A			B		

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Henry Long Boulevard/Manthey Road

Average Delay (sec/veh): 5.4 Worst Case Level Of Service: B[11.0]

Street Name:	Manthey Road						Henry Long Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	0 0	0	0 0	0 1	0	0 0	1! 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	130	40	0	0	160	10	30	0	120	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	40	0	0	160	10	30	0	120	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	130	40	0	0	160	10	30	0	120	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	137	42	0	0	168	11	32	0	126	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	137	42	0	0	168	11	32	0	126	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	179	xxxx	xxxxx	xxxx	xxxx	xxxxx	489	xxxx	174	xxxx	xxxx	xxxxx
Potent Cap.:	1409	xxxx	xxxxx	xxxx	xxxx	xxxxx	541	xxxx	875	xxxx	xxxx	xxxxx
Move Cap.:	1409	xxxx	xxxxx	xxxx	xxxx	xxxxx	498	xxxx	875	xxxx	xxxx	xxxxx
Volume/Cap:	0.10	xxxx	xxxx	xxxx	xxxx	xxxx	0.06	xxxx	0.14	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	0.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	760	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.8	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	11.0	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	B	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx				11.0		xxxxxx		
ApproachLOS:	*			*				B		*		

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Wolfe Road / French Camp Road

Cycle (sec): 60 Critical Vol./Cap. (X): 0.472
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 33.6
Optimal Cycle: 53 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	1! 0	0	1 0	1 0	1	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	10	20	10	120	80	40	30	320	140	20	120	90
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	20	10	120	80	40	30	320	140	20	120	90
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	20	10	120	80	40	30	320	140	20	120	90
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	11	21	11	126	84	42	32	337	147	21	126	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	21	11	126	84	42	32	337	147	21	126	95
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	11	21	11	126	84	42	32	337	147	21	126	95
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.95	1.00	0.85	0.95	0.95	0.95	0.95	0.94	0.94
Lanes:	0.25	0.50	0.25	1.00	1.00	1.00	1.00	0.70	0.30	1.00	0.57	0.43
Final Sat.:	453	907	453	1805	1900	1615	1805	1261	552	1805	1016	762
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.07	0.04	0.03	0.02	0.27	0.27	0.01	0.12	0.12
Crit Moves:		****			****			****		****		
Green/Cycle:	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.28	0.28	0.12	0.24	0.24
Volume/Cap:	0.14	0.14	0.14	0.42	0.27	0.16	0.11	0.94	0.94	0.10	0.53	0.53
Delay/Veh:	21.5	21.5	21.5	23.4	22.3	21.7	21.5	47.1	47.1	23.9	21.3	21.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.5	21.5	21.5	23.4	22.3	21.7	21.5	47.1	47.1	23.9	21.3	21.3
HCM2kAvg:	1	1	1	3	2	1	1	14	14	0	4	4

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #11 French Camp Road/McDougald Boulevard

Average Delay (sec/veh): 3.0 Worst Case Level Of Service: C[18.8]

Street Name:	McDougald Boulevard						French Camp Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 0	0	1 0	0 0	1	0 1	0 0	0	0 0	0 1	0
Volume Module: 7-8												
Base Vol:	0	0	0	120	0	10	20	430	0	0	220	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	120	0	10	20	430	0	0	220	60
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	120	0	10	20	430	0	0	220	60
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	126	0	11	21	453	0	0	232	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	126	0	11	21	453	0	0	232	63
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	758	xxxx	263	295	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	378	xxxx	780	1278	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	373	xxxx	780	1278	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.34	xxxx	0.01	0.02	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	1.5	xxxx	0.0	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	19.5	xxxx	9.7	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	C	*	A	A	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			18.8			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #12 Manthey Road/French Camp Road

Cycle (sec): 100 Critical Vol./Cap. (X): 1.171
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 82.3
Optimal Cycle: 0 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	20	30	160	240	30	10	10	510	30	250	250	130
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	30	160	240	30	10	10	510	30	250	250	130
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	30	160	240	30	10	10	510	30	250	250	130
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	21	32	168	253	32	11	11	537	32	263	263	137
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	32	168	253	32	11	11	537	32	263	263	137
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	21	32	168	253	32	11	11	537	32	263	263	137
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.14	0.76	0.86	0.11	0.03	0.02	0.93	0.05	0.50	0.50	1.00
Final Sat.:	42	63	337	376	47	16	9	459	27	229	229	521
Capacity Analysis Module:												
Vol/Sat:	0.50	0.50	0.50	0.67	0.67	0.67	1.17	1.17	1.17	1.15	1.15	0.26
Crit Moves:			****		****			****			****	
Delay/Veh:	18.2	18.2	18.2	25.7	25.7	25.7	121.6	122	121.6	116.0	116	12.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	18.2	18.2	18.2	25.7	25.7	25.7	121.6	122	121.6	116.0	116	12.0
LOS by Move:	C	C	C	D	D	D	F	F	F	F	F	B
ApproachDel:	18.2			25.7			121.6			94.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	18.2			25.7			121.6			94.5		
LOS by Appr:	C			D			F			F		

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #13 French Camp Road/I-5 SB Ramps

Average Delay (sec/veh): 14.2 Worst Case Level Of Service: E[36.1]

Street Name:	I-5 SB Ramps						French Camp Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 0	0	1 1	0 0	1	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	480	0	320	0	470	440	90	310	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	480	0	320	0	470	440	90	310	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	480	0	320	0	470	440	90	310	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	505	0	337	0	495	463	95	326	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	505	0	337	0	495	463	95	326	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	763	xxxx	163	xxxx	xxxx	xxxxx	958	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	345	xxxx	859	xxxx	xxxx	xxxxx	726	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	310	xxxx	859	xxxx	xxxx	xxxxx	726	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	1.63	xxxx	0.39	xxxx	xxxx	xxxx	0.13	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	6.8	xxxx	1.9	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	52.3	xxxx	11.9	xxxxx	xxxx	xxxxx	10.7	xxxx	xxxxx
LOS by Move:	*	*	*	F	*	B	*	*	*	B	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	310	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	6.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	52.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	F	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			36.1			xxxxxx			xxxxxx		
ApproachLOS:	*			E			*			*		

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #14 French Camp Road/I-5 NB Ramps

Average Delay (sec/veh): 13.8 Worst Case Level Of Service: F[76.1]

Street Name:	I-5 NB Ramps									French Camp Road												
Approach:	North Bound					South Bound					East Bound					West Bound						
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R		
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled						
Rights:	Include					Include					Include					Include						
Lanes:	1	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	1	1	0		
Volume Module:																						
Base Vol:	160		0		120	0		0		0	280		670		0	0		240		270		
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00			
Initial Bse:	160		0		120	0		0		0	280		670		0	0		240		270		
Added Vol:	0		0		0	0		0		0	0		0		0	0		0		0		
PasserByVol:	0		0		0	0		0		0	0		0		0	0		0		0		
Initial Fut:	160		0		120	0		0		0	280		670		0	0		240		270		
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00			
PHF Adj:	0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95			
PHF Volume:	168		0		126	0		0		0	295		705		0	0		253		284		
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0		
Final Vol.:	168		0		126	0		0		0	295		705		0	0		253		284		
Critical Gap Module:																						
Critical Gp:	6.8	xxxx		6.9	xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
FollowUpTim:	3.5	xxxx		3.3	xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Capacity Module:																						
Cnflict Vol:	1421	xxxx		353	xxxx	xxxx	xxxxx		537	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Potent Cap.:	130	xxxx		649	xxxx	xxxx	xxxxx		1041	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Move Cap.:	101	xxxx		649	xxxx	xxxx	xxxxx		1041	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Volume/Cap:	1.66	xxxx		0.19	xxxx	xxxx	xxxx		0.28	xxxx	xxxx	xxxx	xxxx	xxxx								
Level Of Service Module:																						
Queue:	4.7	xxxx		0.7	xxxxx	xxxx	xxxxx		1.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Stopped Del:	124.2	xxxx		11.9	xxxxx	xxxx	xxxxx		9.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
LOS by Move:	F	*		B	*	*	*		A	*	*	*	*	*								
Movement:	LT - LTR - RT					LT - LTR - RT					LT - LTR - RT					LT - LTR - RT						
Shared Cap.:	101	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx							
SharedQueue:	4.7	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx							
Shrd StpDel:	124.2	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx							
Shared LOS:	F	*		*	*	*	*		*	*	*		*	*	*							
ApproachDel:	76.1					xxxxxx					xxxxxx					xxxxxx						
ApproachLOS:	F					*					*					*						

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2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #15 French Camp Road/Val Dervin Parkway

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Val Dervin Parkway									French Camp Road												
Approach:	North Bound					South Bound					East Bound					West Bound						
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R		
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled						
Rights:	Include					Include					Include					Include						
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	1	0	0	1	0	1	0		
Volume Module:																						
Base Vol:	50		30		10	30		20		60	250		430		110	330		400		0		
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00			
Initial Bse:	50		30		10	30		20		60	250		430		110	330		400		0		
Added Vol:	0		0		0	0		0		0	0		0		0	0		0		0		
PasserByVol:	0		0		0	0		0		0	0		0		0	0		0		0		
Initial Fut:	50		30		10	30		20		60	250		430		110	330		400		0		
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00			
PHF Adj:	0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95			
PHF Volume:	53		32		11	32		21		63	263		453		116	347		421		0		
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0		
Final Vol.:	53		32		11	32		21		63	263		453		116	347		421		0		
Critical Gap Module:																						
Critical Gp:	7.5		6.5		6.9	7.5		6.5		6.9	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx					
FollowUpTim:	3.5		4.0		3.3	3.5		4.0		3.3	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx					
Capacity Module:																						
Cnflict Vol:	1953	2153		284		1884	2211		211		421	xxxx	xxxxx		568	xxxx	xxxxx					
Potent Cap.:	39		49		719	44		45		801	1149	xxxx	xxxxx		1014	xxxx	xxxxx					
Move Cap.:	0		22		719	0		20		801	1149	xxxx	xxxxx		1014	xxxx	xxxxx					
Volume/Cap:	xxxx	1.46		0.01		xxxx	1.06		0.08		0.23	xxxx	xxxx		0.34	xxxx	xxxx					
Level Of Service Module:																						
Queue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.9	xxxx	xxxxx		1.5	xxxx	xxxxx							
Stopped Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		9.1	xxxx	xxxxx		10.4	xxxx	xxxxx							
LOS by Move:	*	*	*		*	*	*		A	*	*		B	*	*							
Movement:	LT - LTR - RT					LT - LTR - RT					LT - LTR - RT					LT - LTR - RT						
Shared Cap.:	xxxx		0	xxxxx		xxxx	0	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx						
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		1.5	xxxx	xxxxx							
Shrd StpDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		10.4	xxxx	xxxxx							
Shared LOS:	*	*	*		*	*	*		*	*	*		B	*	*							
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					xxxxxx						
ApproachLOS:	F					F					*					*						

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2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #16 Yettner Road/ S. Manthey Road

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: B[11.4]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0	1	0	0 0	0	0	0	1 0	0	0	1!	0 0	0	0	0	0 0
Volume Module:																
Base Vol:	10	200		0	0	300		10	10		0	10	0		0	0
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
Initial Bse:	10	200		0	0	300		10	10		0	10	0		0	0
Added Vol:	0	0		0	0	0		0	0		0	0	0		0	0
PasserByVol:	0	0		0	0	0		0	0		0	0	0		0	0
Initial Fut:	10	200		0	0	300		10	10		0	10	0		0	0
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
PHF Adj:	0.95	0.95		0.95	0.95	0.95		0.95	0.95		0.95	0.95	0.95		0.95	0.95
PHF Volume:	11	211		0	0	316		11	11		0	11	0		0	0
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
Final Vol.:	11	211		0	0	316		11	11		0	11	0		0	0
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx			6.4	xxxx		6.2	xxxxx	xxxx	xxxxx	
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx			3.5	xxxx		3.3	xxxxx	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	326	xxxx	xxxxx	xxxx	xxxx	xxxxx			553	xxxx		321	xxxx	xxxx	xxxxx	
Potent Cap.:	1245	xxxx	xxxxx	xxxx	xxxx	xxxxx			498	xxxx		724	xxxx	xxxx	xxxxx	
Move Cap.:	1245	xxxx	xxxxx	xxxx	xxxx	xxxxx			495	xxxx		724	xxxx	xxxx	xxxxx	
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx			0.02	xxxx		0.01	xxxx	xxxx	xxxx	
Level Of Service Module:																
Queue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Stopped Del:	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*				
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT				
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	588	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx				
Shrd StpDel:	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	11.4	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	A	*	*	*	*	*	*	B	*	*	*	*				
ApproachDel:	xxxxxx			xxxxxx				11.4			xxxxxx					
ApproachLOS:	*			*				B			*					

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #17 Mathews Road/South Manthey Road

Cycle (sec): 100 Critical Vol./Cap. (X): 1.103
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 57.5
Optimal Cycle: 0 Level Of Service: F

Street Name:	South Manthey Road								Mathews Road							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10		10	7	10		10	7	10		10	7	10		10
Lanes:	0	0	1!	0 0	0	0	1!	0 0	1	0	0	1 0	1	0	1	0 1
Volume Module: 715-815																
Base Vol:	20	20		20	20	10		30	10	170		20	30	740		90
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	20	20		20	20	10		30	10	170		20	30	740		90
Added Vol:	0	0		0	0	0		0	0	0		0	0	0		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	20	20		20	20	10		30	10	170		20	30	740		90
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95
PHF Volume:	21	21		21	21	11		32	11	179		21	32	779		95
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	21	21		21	21	11		32	11	179		21	32	779		95
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Final Vol.:	21	21		21	21	11		32	11	179		21	32	779		95
Saturation Flow Module:																
Adjustment:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Lanes:	0.34	0.33		0.33	0.33	0.17		0.50	1.00	0.89		0.11	1.00	1.00		1.00
Final Sat.:	190	190		190	193	97		290	575	568		67	639	706		813
Capacity Analysis Module:																
Vol/Sat:	0.11	0.11		0.11	0.11	0.11		0.11	0.02	0.32		0.32	0.05	1.10		0.12
Crit Moves:	****				****					****				****		
Delay/Veh:	9.9	9.9		9.9	9.7	9.7		9.7	9.0	10.8		10.8	8.6	85.9		7.7
Delay Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:	9.9	9.9		9.9	9.7	9.7		9.7	9.0	10.8		10.8	8.6	85.9		7.7
LOS by Move:	A	A		A	A	A		A	A	B		B	A	F		A
ApproachDel:	9.9				9.7				10.7				75.0			
Delay Adj:	1.00				1.00				1.00				1.00			
ApprAdjDel:	9.9				9.7				10.7				75.0			
LOS by Appr:	A				A				B				F			

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #18 Mathews Road/I-5 SB Ramps

Average Delay (sec/veh): 11.1 Worst Case Level Of Service: C[24.8]

Street Name:	I-5 SB Ramps									Mathews Road							
Approach:	North Bound					South Bound				East Bound					West Bound		
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	1	0	1	0	0
Volume Module: 715-815																				
Base Vol:	0	0	0			140	0		410		0		170		40	60		450		0
Growth Adj:	1.00	1.00	1.00			1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	0	0	0			140	0		410		0		170		40	60		450		0
Added Vol:	0	0	0			0	0		0		0		0		0	0		0		0
PasserByVol:	0	0	0			0	0		0		0		0		0	0		0		0
Initial Fut:	0	0	0			140	0		410		0		170		40	60		450		0
User Adj:	1.00	1.00	1.00			1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	0.95	0.95	0.95			0.95	0.95		0.95		0.95		0.95		0.95	0.95		0.95		0.95
PHF Volume:	0	0	0			147	0		432		0		179		42	63		474		0
Reduct Vol:	0	0	0			0	0		0		0		0		0	0		0		0
Final Vol.:	0	0	0			147	0		432		0		179		42	63		474		0
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			6.4	xxxx		6.2		xxxxx	xxxx	xxxxx			4.1	xxxx	xxxxx		
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	xxxx		3.3		xxxxx	xxxx	xxxxx			2.2	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			800	xxxx		474		xxxx	xxxx	xxxxx			221	xxxx	xxxxx		
Potent Cap.:	xxxx	xxxx	xxxxx			357	xxxx		595		xxxx	xxxx	xxxxx			1360	xxxx	xxxxx		
Move Cap.:	xxxx	xxxx	xxxxx			344	xxxx		595		xxxx	xxxx	xxxxx			1360	xxxx	xxxxx		
Volume/Cap:	xxxx	xxxx	xxxx			0.43	xxxx		0.73		xxxx	xxxx	xxxx			0.05	xxxx	xxxx		
Level Of Service Module:																				
Queue:	xxxxx	xxxx	xxxxx			2.1	xxxx	xxxxx	xxxxx		xxxx	xxxxx				0.1	xxxx	xxxxx		
Stopped Del:	xxxxx	xxxx	xxxxx			23.1	xxxx	xxxxx	xxxxx		xxxx	xxxxx				7.8	xxxx	xxxxx		
LOS by Move:	*	*	*			C	*		*		*		*			A	*		*	
Movement:	LT - LTR - RT					LT - LTR - RT					LT - LTR - RT					LT - LTR - RT				
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx		595		xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx		6.1		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd StpDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx		25.4		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	*	*			*	*		D		*	*	*			*	*	*		
ApproachDel:	xxxxxx					24.8					xxxxxx					xxxxxx				
ApproachLOS:	*					C					*					*				

Weston Ranch Towne Center EIR
Near-Term Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #19 Mathews Road/I-5 NB Ramps

Average Delay (sec/veh): 90.6 Worst Case Level Of Service: F[146.4]

Street Name:	I-5 NB Ramps									Mathews Road							
Approach:	North Bound					South Bound				East Bound					West Bound		
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0
Volume Module: 715-815																				
Base Vol:	280		0	1050		0		0		0	120		190		0	0		230		290
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	280		0	1050		0		0		0	120		190		0	0		230		290
Added Vol:	0		0	0		0		0		0	0		0		0	0		0		0
PasserByVol:	0		0	0		0		0		0	0		0		0	0		0		0
Initial Fut:	280		0	1050		0		0		0	120		190		0	0		230		290
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95	
PHF Volume:	295		0	1105		0		0		0	126		200		0	0		242		305
Reduct Vol:	0		0	0		0		0		0	0		0		0	0		0		0
Final Vol.:	295		0	1105		0		0		0	126		200		0	0		242		305
Critical Gap Module:																				
Critical Gp:	6.4	xxxx		6.2	xxxxx	xxxx	xxxxx			4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
FollowUpTim:	3.5	xxxx		3.3	xxxxx	xxxx	xxxxx			2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
Capacity Module:																				
Cnflict Vol:	847	xxxx		200	xxxx	xxxx	xxxxx			547	xxxx	xxxxx	xxxx	xxxx	xxxxx					
Potent Cap.:	335	xxxx		846	xxxx	xxxx	xxxxx			1032	xxxx	xxxxx	xxxx	xxxx	xxxxx					
Move Cap.:	303	xxxx		846	xxxx	xxxx	xxxxx			1032	xxxx	xxxxx	xxxx	xxxx	xxxxx					
Volume/Cap:	0.97	xxxx		1.31	xxxx	xxxx	xxxx			0.12	xxxx	xxxx	xxxx	xxxx	xxxx					
Level Of Service Module:																				
Queue:	10.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx				0.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
Stopped Del:	82.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx				9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
LOS by Move:	F	*	*	*	*	*				A	*	*	*	*	*					
Movement:	LT - LTR - RT																			
Shared Cap.:	xxxx	xxxx	846	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx					
SharedQueue:	xxxxx	xxxx	42.2	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
Shrd StpDel:	xxxxx	xxxx	163.4	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
Shared LOS:	*	*	F	*	*	*				*	*	*	*	*	*					
ApproachDel:	146.4			xxxxxx						xxxxxx				xxxxxx						
ApproachLOS:	F			*						*				*						

Weston Ranch Towne Center EIR
Near-Term Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #20 Howard Road/ Wolfe Road

Average Delay (sec/veh): 5.8 Worst Case Level Of Service: B[14.0]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0
Volume Module:																
Base Vol:	10	20	40		100	20	60		10	60	10		10	240	10	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	10	20	40		100	20	60		10	60	10		10	240	10	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	10	20	40		100	20	60		10	60	10		10	240	10	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	11	21	42		105	21	63		11	63	11		11	253	11	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Final Vol.:	11	21	42		105	21	63		11	63	11		11	253	11	
Critical Gap Module:																
Critical Gp:	7.1	6.5	6.2		7.1	6.5	6.2		4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3		3.5	4.0	3.3		2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	411	374	68		400	374	258		263	xxxx	xxxxx		74	xxxx	xxxxx	
Potent Cap.:	555	560	1000		564	560	786		1313	xxxx	xxxxx		1539	xxxx	xxxxx	
Move Cap.:	490	552	1000		519	552	786		1313	xxxx	xxxxx		1539	xxxx	xxxxx	
Volume/Cap:	0.02	0.04	0.04		0.20	0.04	0.08		0.01	xxxx	xxxx		0.01	xxxx	xxxx	
Level Of Service Module:																
Queue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.0	xxxx	xxxxx		0.0	xxxx	xxxxx	
Stopped Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		7.8	xxxx	xxxxx		7.4	xxxx	xxxxx	
LOS by Move:	*	*	*		*	*	*		A	*	*		A	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	724	xxxxx		xxxx	589	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.3	xxxxx		xxxxx	1.4	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd StpDel:	xxxxx	10.5	xxxxx		xxxxx	14.0	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	B	*		*	B	*		*	*	*		*	*	*	
ApproachDel:	10.5				14.0				xxxxxx				xxxxxx			
ApproachLOS:	B				B				*				*			

Weston Ranch Towne Center EIR
Near-Term Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 French Camp Road/Seconday Project Driveway

Cycle (sec): 100 Critical Vol./Cap. (X): 0.289
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 2.4
Optimal Cycle: 34 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0	0	0	0 0	0	0	0	0 0	0	0	1	0 0	0	0	1	0 0
Volume Module:																
Base Vol:	0	0	0		0	0	0		0	550	0		0	280	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		0	0	0		0	550	0		0	280	0	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		0	0	0		0	550	0		0	280	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	0	0		0	0	0		0	550	0		0	280	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		0	0	0		0	550	0		0	280	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	0	0	0		0	0	0		0	550	0		0	280	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	1.00	0.00		0.00	1.00	0.00	
Final Sat.:	0	0	0		0	0	0		0	1900	0		0	1900	0	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.29	0.00		0.00	0.15	0.00	
Crit Moves:										****			****			
Green/Cycle:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.93	0.00		0.00	0.68	0.00	
Volume/Cap:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.31	0.00		0.00	0.22	0.00	
Delay/Veh:	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.4	0.0		0.0	6.2	0.0	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.4	0.0		0.0	6.2	0.0	
HCM2kAvg:	0	0	0		0	0	0		0	2	0		0	3	0	

Weston Ranch Towne Center EIR
Near-Term Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #22 French Camp Road/Realigned Manthey Road

****

Cycle (sec): 100 Critical Vol./Cap. (X): 0.305
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 2.3
Optimal Cycle: 34 Level Of Service: A

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Street Name:	S. Manthey Road							French Camp Road							
Approach:	North Bound				South Bound			East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T - R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected			Protected				Protected			
Rights:	Include				Include			Include				Include			
Min. Green:	7	10	10		7	10	10	7	10	10		7	10	10	
Lanes:	0 0	1!	0	0	0 0	1!	0 0	0 0	1	0	0	0 1	0	0	1
Volume Module:															
Base Vol:	0	0	0	0	0	0	0	550	0	0	280	0			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	0	0	0	0	0	0	0	550	0	0	280	0			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	0	0	0	0	0	0	0	550	0	0	280	0			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
PHF Volume:	0	0	0	0	0	0	0	579	0	0	295	0			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	0	0	0	0	0	0	0	579	0	0	295	0			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Final Vol.:	0	0	0	0	0	0	0	579	0	0	295	0			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Lanes:	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00			
Final Sat.:	0	1900	0	0	1900	0	0	1900	0	0	1900	1900			
Capacity Analysis Module:															
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.16	0.00			
Crit Moves:								****		****					
Green/Cycle:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93	0.00	0.00	0.69	0.00			
Volume/Cap:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.23	0.00			
Delay/Veh:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	5.8	0.0			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	5.8	0.0			
HCM2kAvg:	0	0	0	0	0	0	0	2	0	0	3	0			

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Weston Ranch Towne Center EIR
Near-Term Without Project
PM Peak Hour

Scenario Report

Scenario:	Exist+App PM
Command:	Ex+App PM
Volume:	Existing + Approved PM
Geometry:	Existing Plus Approved
Impact Fee:	Default Impact Fee
Trip Generation:	No Project
Trip Distribution:	Existing
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Weston Ranch Towne Center EIR
Near-Term Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Carolyn Weston Boulevard/McDougald Boulevard

Cycle (sec): 60 Critical Vol./Cap. (X): 0.588
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 27.5
Optimal Cycle: 50 Level Of Service: C

Street Name:	McDougald Boulevard						Carolyn Weston Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0 1 0 1			1 0 0 1 0			1 0 1 1 0			1 0 1 1 0		
Volume Module: 5-6												
Base Vol:	50	10	150	50	5	5	10	550	30	300	1000	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	10	150	50	5	5	10	550	30	300	1000	20
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	50	10	150	50	5	5	10	550	30	300	1000	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	53	11	158	53	5	5	11	579	32	316	1053	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	11	158	53	5	5	11	579	32	316	1053	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	53	11	158	53	5	5	11	579	32	316	1053	21
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.93	0.93	0.95	0.94	0.94	0.95	0.95	0.95
Lanes:	1.00	1.00	1.00	1.00	0.50	0.50	1.00	1.90	0.10	1.00	1.96	0.04
Final Sat.:	1805	1900	1615	1805	879	879	1805	3396	185	1805	3529	71
Capacity Analysis Module:												
Vol/Sat:	0.03	0.01	0.10	0.03	0.01	0.01	0.01	0.17	0.17	0.17	0.30	0.30
Crit Moves:			****	****			****				****	
Green/Cycle:	0.12	0.17	0.17	0.12	0.17	0.17	0.12	0.22	0.22	0.23	0.33	0.33
Volume/Cap:	0.25	0.03	0.59	0.25	0.04	0.04	0.05	0.77	0.77	0.77	0.89	0.89
Delay/Veh:	24.7	21.0	26.4	24.7	21.0	21.0	23.6	26.4	26.4	30.2	27.9	27.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.7	21.0	26.4	24.7	21.0	21.0	23.6	26.4	26.4	30.2	27.9	27.9
HCM2kAvg:	1	0	4	1	0	0	0	7	7	8	13	13

Weston Ranch Towne Center EIR
Near-Term Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Carolyn Weston Boulevard/S. Manthey Road

Cycle (sec): 90 Critical Vol./Cap. (X): 0.837
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 36.4
Optimal Cycle: 91 Level Of Service: D

Street Name:	S. Manthey Road						Carolyn Weston Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	1 1	1 0	1 0	1 1	0
Volume Module: 5-6												
Base Vol:	200	90	130	190	70	170	200	500	50	300	950	200
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	200	90	130	190	70	170	200	500	50	300	950	200
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	200	90	130	190	70	170	200	500	50	300	950	200
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	211	95	137	200	74	179	211	526	53	316	1000	211
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	211	95	137	200	74	179	211	526	53	316	1000	211
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	211	95	137	200	74	179	211	526	53	316	1000	211
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.94	0.94	0.95	0.93	0.93
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.82	0.18	1.00	1.65	0.35
Final Sat.:	1805	1900	1615	1805	1900	1615	1805	3236	324	1805	2905	612
Capacity Analysis Module:												
Vol/Sat:	0.12	0.05	0.08	0.11	0.04	0.11	0.12	0.16	0.16	0.17	0.34	0.34
Crit Moves:	****					****	****				****	
Green/Cycle:	0.14	0.37	0.42	0.14	0.13	0.13	0.14	0.27	0.27	0.29	0.41	0.41
Volume/Cap:	0.84	0.37	0.20	0.82	0.29	0.84	0.84	0.61	0.61	0.61	0.84	0.84
Delay/Veh:	58.9	36.2	16.6	56.7	35.9	62.2	58.9	30.2	30.2	30.1	28.3	28.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.9	36.2	16.6	56.7	35.9	62.2	58.9	30.2	30.2	30.1	28.3	28.3
HCM2kAvg:	9	3	2	8	2	7	9	7	7	8	17	17

Weston Ranch Towne Center EIR
Near-Term Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Downing Avenue/French Camp Turnpike

Average Delay (sec/veh): 90.2 Worst Case Level Of Service: F[441.7]

Street Name:	French Camp Turnpike						Downing Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0	1 0	0 1	0
Volume Module: 4-5												
Base Vol:	230	10	10	10	10	100	150	250	120	10	350	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	230	10	10	10	10	100	150	250	120	10	350	10
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	230	10	10	10	10	100	150	250	120	10	350	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	242	11	11	11	11	105	158	263	126	11	368	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	242	11	11	11	11	105	158	263	126	11	368	11
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1095	1042	326	1047	1100	374	379	xxxx	xxxxx	389	xxxx	xxxxx
Potent Cap.:	193	231	720	208	214	677	1191	xxxx	xxxxx	1180	xxxx	xxxxx
Move Cap.:	139	199	720	176	184	677	1191	xxxx	xxxxx	1180	xxxx	xxxxx
Volume/Cap:	1.74	0.05	0.01	0.06	0.06	0.16	0.13	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.5	xxxx	xxxxx	0.0	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx	8.1	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	146	xxxxx	xxxx	463	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	19.7	xxxxx	xxxxx	1.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	442	xxxxx	xxxxx	15.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	C	*	*	*	*	*	*	*
ApproachDel:	441.7			15.7			xxxxxx			xxxxxx		
ApproachLOS:	F			C			*			*		

Near-Term without Project
3: Downing Avenue & I-5 SB Ramps

PM Peak Hour
3/3/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95						1.00	0.88
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		5085	1583	1770	3539						1770	2787
Flt Permitted		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (perm)		5085	1583	1770	3539						1770	2787
Volume (vph)	0	710	160	20	590	0	0	0	0	370	0	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)	0	747	168	21	621	0	0	0	0	389	0	842
RTOR Reduction (vph)	0	0	89	0	0	0	0	0	0	0	0	139
Lane Group Flow (vph)	0	747	79	21	621	0	0	0	0	0	389	703
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		33.1	33.1	1.2	38.3						23.7	23.7
Effective Green, g (s)		33.1	33.1	1.2	38.3						23.7	23.7
Actuated g/C Ratio		0.47	0.47	0.02	0.55						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)		2404	749	30	1936						599	944
v/s Ratio Prot		0.15		0.01	c0.18							
v/s Ratio Perm			0.05								0.22	c0.25
v/c Ratio		0.31	0.11	0.70	0.32						0.65	0.74
Uniform Delay, d1		11.4	10.2	34.2	8.7						19.6	20.5
Progression Factor		1.00	1.00	0.71	1.35						1.00	1.00
Incremental Delay, d2		0.3	0.3	46.4	0.4						2.4	3.2
Delay (s)		11.7	10.5	70.8	12.2						22.1	23.7
Level of Service		B	B	E	B						C	C
Approach Delay (s)		11.5			14.1			0.0			23.2	
Approach LOS		B			B			A			C	

Intersection Summary			
HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Near-Term without Project
4: Downing Avenue & I-5 NB Ramps

PM Peak Hour
3/3/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	0.97	1.00			0.95			1.00	1.00			
Frt	1.00	1.00			0.92			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (prot)	3433	1863			3266			1777	1583			
Flt Permitted	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (perm)	3433	1863			3266			1777	1583			
Volume (vph)	600	480	0	0	330	350	280	10	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)	632	505	0	0	347	368	295	11	42	0	0	0
RTOR Reduction (vph)	0	0	0	0	238	0	0	0	32	0	0	0
Lane Group Flow (vph)	632	505	0	0	477	0	0	306	10	0	0	0
Turn Type	Prot						Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	16.9	45.7			24.8			16.3	16.3			
Effective Green, g (s)	16.9	45.7			24.8			16.3	16.3			
Actuated g/C Ratio	0.24	0.65			0.35			0.23	0.23			
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)	829	1216			1157			414	369			
v/s Ratio Prot	c0.18	c0.27			0.15							
v/s Ratio Perm								0.17	0.01			
v/c Ratio	0.76	0.42			0.41			0.74	0.03			
Uniform Delay, d1	24.7	5.8			17.1			24.9	20.7			
Progression Factor	0.96	1.12			1.00			1.00	1.00			
Incremental Delay, d2	4.0	1.0			1.1			6.8	0.0			
Delay (s)	27.8	7.5			18.2			31.7	20.8			
Level of Service	C	A			B			C	C			
Approach Delay (s)		18.8			18.2			30.3			0.0	
Approach LOS		B			B			C			A	

Intersection Summary			
HCM Average Control Delay	20.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Weston Ranch Towne Center EIR
Near-Term Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 William Moss Boulevard/McDougald Boulevard

Cycle (sec): 60 Critical Vol./Cap. (X): 0.286
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 50 Level Of Service: C

Street Name:	McDougald Boulevard						William Moss Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module: 445-545												
Base Vol:	10	140	110	90	40	70	80	150	20	30	100	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	140	110	90	40	70	80	150	20	30	100	10
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	140	110	90	40	70	80	150	20	30	100	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	11	147	116	95	42	74	84	158	21	32	105	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	147	116	95	42	74	84	158	21	32	105	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	11	147	116	95	42	74	84	158	21	32	105	11
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.89	0.89	0.95	0.86	0.86	0.95	0.93	0.93	0.95	0.94	0.94
Lanes:	1.00	1.12	0.88	1.00	1.00	1.00	1.00	1.76	0.24	1.00	1.82	0.18
Final Sat.:	1805	1888	1484	1805	1634	1634	1805	3128	417	1805	3236	324
Capacity Analysis Module:												
Vol/Sat:	0.01	0.08	0.08	0.05	0.03	0.05	0.05	0.05	0.05	0.02	0.03	0.03
Crit Moves:		****		****			****				****	
Green/Cycle:	0.17	0.25	0.25	0.17	0.25	0.25	0.15	0.19	0.19	0.13	0.17	0.17
Volume/Cap:	0.03	0.31	0.31	0.31	0.10	0.18	0.31	0.27	0.27	0.13	0.20	0.20
Delay/Veh:	20.7	18.5	18.5	22.5	17.6	18.0	23.4	21.2	21.2	23.4	21.7	21.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.7	18.5	18.5	22.5	17.6	18.0	23.4	21.2	21.2	23.4	21.7	21.7
HCM2kAvg:	0	2	2	2	1	1	2	2	2	1	1	1

Weston Ranch Towne Center EIR
Near-Term Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 William Moss Boulevard/S. Manthey Road

Cycle (sec): 60 Critical Vol./Cap. (X): 0.287
Loss Time (sec): 12 (Y+R = 5 sec) Average Delay (sec/veh): 14.6
Optimal Cycle: 39 Level Of Service: B

Street Name:							William Moss Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0 1	0 0		0 0 0	1 0		1 0 0	0 1		0 0 0	0 0	
Volume Module: 5-6												
Base Vol:	80	120	0	0	180	80	150	0	50	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	80	120	0	0	180	80	150	0	50	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	120	0	0	180	80	150	0	50	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	84	126	0	0	189	84	158	0	53	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	126	0	0	189	84	158	0	53	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	84	126	0	0	189	84	158	0	53	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.96	0.96	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.69	0.31	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	1260	560	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.07	0.00	0.00	0.15	0.15	0.09	0.00	0.03	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.13	0.55	0.00	0.00	0.42	0.42	0.25	0.00	0.25	0.00	0.00	0.00
Volume/Cap:	0.36	0.12	0.00	0.00	0.36	0.36	0.36	0.00	0.13	0.00	0.00	0.00
Delay/Veh:	24.7	6.4	0.0	0.0	12.0	12.0	19.2	0.0	17.8	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.7	6.4	0.0	0.0	12.0	12.0	19.2	0.0	17.8	0.0	0.0	0.0
HCM2kAvg:	2	1	0	0	3	3	3	0	1	0	0	0

Weston Ranch Towne Center EIR
Near-Term Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8 Henry Long Boulevard/McDougald Boulevard

Cycle (sec): 100 Critical Vol./Cap. (X): 0.701
Loss Time (sec): 0 (Y+R = 5 sec) Average Delay (sec/veh): 16.1
Optimal Cycle: 0 Level Of Service: C

Street Name:	McDougald Boulevard						Henry Long Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	1! 0	0	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	130	60	50	40	10	150	120	40	130	190	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	130	60	50	40	10	150	120	40	130	190	60
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	50	130	60	50	40	10	150	120	40	130	190	60
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	53	137	63	53	42	11	158	126	42	137	200	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	137	63	53	42	11	158	126	42	137	200	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	53	137	63	53	42	11	158	126	42	137	200	63
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.21	0.54	0.25	1.00	0.80	0.20	1.00	0.75	0.25	0.34	0.50	0.16
Final Sat.:	107	279	129	434	376	94	511	423	141	195	285	90
Capacity Analysis Module:												
Vol/Sat:	0.49	0.49	0.49	0.12	0.11	0.11	0.31	0.30	0.30	0.70	0.70	0.70
Crit Moves:		****		****			****				****	
Delay/Veh:	15.2	15.2	15.2	11.2	10.4	10.4	12.3	11.2	11.2	21.5	21.5	21.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	15.2	15.2	15.2	11.2	10.4	10.4	12.3	11.2	11.2	21.5	21.5	21.5
LOS by Move:	C	C	C	B	B	B	B	B	B	C	C	C
ApproachDel:	15.2			10.8			11.8			21.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	15.2			10.8			11.8			21.5		
LOS by Appr:	C			B			B			C		

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Henry Long Boulevard/Manthey Road

Average Delay (sec/veh): 5.9 Worst Case Level Of Service: B[13.5]

Street Name:	Manthey Road						Henry Long Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	0 0	0	0 0	0 1	0	0 0	1! 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	200	150	0	0	50	180	50	0	180	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	200	150	0	0	50	180	50	0	180	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	200	150	0	0	50	180	50	0	180	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	211	158	0	0	53	189	53	0	189	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	211	158	0	0	53	189	53	0	189	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	242	xxxx	xxxxx	xxxx	xxxx	xxxxx	726	xxxx	147	xxxx	xxxx	xxxxx
Potent Cap.:	1336	xxxx	xxxxx	xxxx	xxxx	xxxxx	394	xxxx	905	xxxx	xxxx	xxxxx
Move Cap.:	1336	xxxx	xxxxx	xxxx	xxxx	xxxxx	340	xxxx	905	xxxx	xxxx	xxxxx
Volume/Cap:	0.16	xxxx	xxxx	xxxx	xxxx	xxxx	0.15	xxxx	0.21	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	0.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	665	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.7	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	13.5	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	B	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx				13.5		xxxxxx		
ApproachLOS:	*			*				B		*		

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Wolfe Road / French Camp Road

Cycle (sec): 60 Critical Vol./Cap. (X): 0.563
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 36.6
Optimal Cycle: 53 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	1! 0	0	1 0	1 0	1	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	30	210	80	60	20	10	10	110	10	10	220	140
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	210	80	60	20	10	10	110	10	10	220	140
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	210	80	60	20	10	10	110	10	10	220	140
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	32	221	84	63	21	11	11	116	11	11	232	147
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	221	84	63	21	11	11	116	11	11	232	147
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	32	221	84	63	21	11	11	116	11	11	232	147
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.96	0.96	0.96	0.95	1.00	0.85	0.95	0.99	0.99	0.95	0.94	0.94
Lanes:	0.09	0.66	0.25	1.00	1.00	1.00	1.00	0.92	0.08	1.00	0.61	0.39
Final Sat.:	171	1198	457	1805	1900	1615	1805	1721	156	1805	1094	696
Capacity Analysis Module:												
Vol/Sat:	0.18	0.18	0.18	0.03	0.01	0.01	0.01	0.07	0.07	0.01	0.21	0.21
Crit Moves:			****		****		****				****	
Green/Cycle:	0.21	0.21	0.21	0.17	0.17	0.17	0.12	0.21	0.21	0.15	0.24	0.24
Volume/Cap:	0.88	0.88	0.88	0.21	0.07	0.04	0.05	0.32	0.32	0.04	0.88	0.88
Delay/Veh:	43.3	43.3	43.3	21.9	21.2	21.0	23.6	20.5	20.5	22.0	40.5	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.3	43.3	43.3	21.9	21.2	21.0	23.6	20.5	20.5	22.0	40.5	40.5
HCM2kAvg:	10	10	10	1	0	0	0	2	2	0	10	10

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #11 French Camp Road/McDougald Boulevard

Average Delay (sec/veh): 4.2 Worst Case Level Of Service: C[17.2]

Street Name:	McDougald Boulevard						French Camp Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 0	0	1 0	0 0	1	0 1	0 0	0	0 0	0 1	0
Volume Module: >> Count Date: 21 May 2003 << 5-6												
Base Vol:	0	0	0	90	0	120	90	240	0	0	360	150
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	90	0	120	90	240	0	0	360	150
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	90	0	120	90	240	0	0	360	150
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	95	0	126	95	253	0	0	379	158
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	95	0	126	95	253	0	0	379	158
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	900	xxxx	458	537	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	312	xxxx	607	1041	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	289	xxxx	607	1041	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.33	xxxx	0.21	0.09	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	1.4	xxxx	0.8	0.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	23.4	xxxx	12.5	8.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	C	*	B	A	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			17.2			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Weston Ranch Towne Center EIR
Near-Term Without Project
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #12 Manthey Road/French Camp Road

Cycle (sec): 100 Critical Vol./Cap. (X): 1.296
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 74.8
Optimal Cycle: 0 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	30	90	280	170	50	10	10	310	10	90	470	250
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	90	280	170	50	10	10	310	10	90	470	250
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	90	280	170	50	10	10	310	10	90	470	250
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	32	95	295	179	53	11	11	326	11	95	495	263
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	95	295	179	53	11	11	326	11	95	495	263
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	32	95	295	179	53	11	11	326	11	95	495	263
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.08	0.22	0.70	0.74	0.22	0.04	0.03	0.94	0.03	0.16	0.84	1.00
Final Sat.:	36	109	339	297	87	17	13	416	13	73	382	505
Capacity Analysis Module:												
Vol/Sat:	0.87	0.87	0.87	0.60	0.60	0.60	0.78	0.78	0.78	1.30	1.30	0.52
Crit Moves:	****			****			****			****		
Delay/Veh:	39.9	39.9	39.9	21.8	21.8	21.8	32.0	32.0	32.0	172.3	172	17.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.9	39.9	39.9	21.8	21.8	21.8	32.0	32.0	32.0	172.3	172	17.3
LOS by Move:	E	E	E	C	C	C	D	D	D	F	F	C
ApproachDel:	39.9			21.8			32.0			124.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	39.9			21.8			32.0			124.4		
LOS by Appr:	E			C			D			F		

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #13 French Camp Road/I-5 SB Ramps

Average Delay (sec/veh): 26.9 Worst Case Level Of Service: F[88.6]

Street Name:	I-5 SB Ramps						French Camp Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 0	0	1 1	0 0	1	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	380	0	230	0	590	170	90	580	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	380	0	230	0	590	170	90	580	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	380	0	230	0	590	170	90	580	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	400	0	242	0	621	179	95	611	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	400	0	242	0	621	179	95	611	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1111	xxxx	305	xxxx	xxxx	xxxxx	800	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	206	xxxx	697	xxxx	xxxx	xxxxx	832	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	188	xxxx	697	xxxx	xxxx	xxxxx	832	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	2.12	xxxx	0.35	xxxx	xxxx	xxxx	0.11	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	9.4	xxxx	1.6	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	134.4	xxxx	12.9	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx
LOS by Move:	*	*	*	F	*	B	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	188	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	9.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	134.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	F	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			88.6			xxxxxx			xxxxxx		
ApproachLOS:	*			F			*			*		

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #14 French Camp Road/I-5 NB Ramps

Average Delay (sec/veh): 176.2 Worst Case Level Of Service: F[843.6]

Street Name:	I-5 NB Ramps								French Camp Road							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module:																				
Base Vol:	320		0		120	0		0		0	430		540		0	0		350		380
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	320		0		120	0		0		0	430		540		0	0		350		380
Added Vol:	0		0		0	0		0		0	0		0		0	0		0		0
PasserByVol:	0		0		0	0		0		0	0		0		0	0		0		0
Initial Fut:	320		0		120	0		0		0	430		540		0	0		350		380
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95	
PHF Volume:	337		0		126	0		0		0	453		568		0	0		368		400
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Final Vol.:	337		0		126	0		0		0	453		568		0	0		368		400
Critical Gap Module:																				
Critical Gp:	6.8	xxxx		6.9	xxxxx	xxxx	xxxxx				4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
FollowUpTim:	3.5	xxxx		3.3	xxxxx	xxxx	xxxxx				2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Capacity Module:																				
Cnflict Vol:	1658	xxxx		284	xxxx	xxxx	xxxxx				768	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Potent Cap.:	90	xxxx		719	xxxx	xxxx	xxxxx				855	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Move Cap.:	53	xxxx		719	xxxx	xxxx	xxxxx				855	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Volume/Cap:	6.41	xxxx		0.18	xxxx	xxxx	xxxx				0.53	xxxx	xxxx	xxxx	xxxx	xxxx				
Level Of Service Module:																				
Queue:	18.0	xxxx		0.6	xxxxx	xxxx	xxxxx				3.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Stopped Del:	1156	xxxx		11.1	xxxxx	xxxx	xxxxx				13.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	F	*		B	*	*	*				B	*	*	*	*	*				
Movement:	LT - LTR - RT					LT - LTR - RT					LT - LTR - RT					LT - LTR - RT				
Shared Cap.:	53	xxxx	xxxxx		xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx			
SharedQueue:	18.0	xxxx	xxxxx		xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx			
Shrd StpDel:	1156	xxxx	xxxxx		xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx			
Shared LOS:	F	*		*	*	*	*				*	*	*		*	*	*			
ApproachDel:	843.6					xxxxxx					xxxxxx					xxxxxx				
ApproachLOS:	F					*					*					*				

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #15 French Camp Road/Val Dervin Parkway

Average Delay (sec/veh): 20.6 Worst Case Level Of Service: F[165.1]

Street Name:	Val Dervin Parkway								French Camp Road							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	1	0	0	1	0	1	0
Volume Module:																				
Base Vol:	70		10		10	60		10		210	90		490		80	90		450		0
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	70		10		10	60		10		210	90		490		80	90		450		0
Added Vol:	0		0		0	0		0		0	0		0		0	0		0		0
PasserByVol:	0		0		0	0		0		0	0		0		0	0		0		0
Initial Fut:	70		10		10	60		10		210	90		490		80	90		450		0
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95	
PHF Volume:	74		11		11	63		11		221	95		516		84	95		474		0
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Final Vol.:	74		11		11	63		11		221	95		516		84	95		474		0
Critical Gap Module:																				
Critical Gp:	7.5		6.5		6.9	7.5		6.5		6.9	4.1	xxxx	xxxxx			4.1	xxxx	xxxxx		
FollowUpTim:	3.5		4.0		3.3	3.5		4.0		3.3	2.2	xxxx	xxxxx			2.2	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	1179		1411		300	1116		1453		237	474	xxxx	xxxxx			600	xxxx	xxxxx		
Potent Cap.:	148		140		702	165		132		771	1099	xxxx	xxxxx			987	xxxx	xxxxx		
Move Cap.:	85		115		702	131		108		771	1099	xxxx	xxxxx			987	xxxx	xxxxx		
Volume/Cap:	0.87		0.09		0.01	0.48		0.10		0.29	0.09	xxxx	xxxx			0.10	xxxx	xxxx		
Level Of Service Module:																				
Queue:	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx	0.3	xxxx	xxxxx			0.3	xxxx	xxxxx		
Stopped Del:	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx	8.6	xxxx	xxxxx			9.0	xxxx	xxxxx		
LOS by Move:	*		*		*	*		*		*	A	*	*			A	*	*		
Movement:	LT - LTR - RT					LT - LTR - RT					LT - LTR - RT					LT - LTR - RT				
Shared Cap.:	xxxx		97		xxxxx	xxxx		340		xxxxx	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx		5.8		xxxxx	xxxxx		8.1		xxxxx	xxxxx	xxxx	xxxxx			0.3	xxxx	xxxxx		
Shrd StpDel:	xxxxx		165		xxxxx	xxxxx		56.8		xxxxx	xxxxx	xxxx	xxxxx			9.0	xxxx	xxxxx		
Shared LOS:	*		F		*	*		F		*	*	*	*			A	*	*		
ApproachDel:	165.1					56.8					xxxxxx					xxxxxx				
ApproachLOS:	F					F					*					*				

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #16 Yettner Road/ S. Manthey Road

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[11.0]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0	1	0	0 0	0	0	0	1 0	0	0	1!	0 0	0	0	0	0 0
Volume Module:																
Base Vol:	10	390		0	0	140		10	10		0	10	0		0	0
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
Initial Bse:	10	390		0	0	140		10	10		0	10	0		0	0
Added Vol:	0	0		0	0	0		0	0		0	0	0		0	0
PasserByVol:	0	0		0	0	0		0	0		0	0	0		0	0
Initial Fut:	10	390		0	0	140		10	10		0	10	0		0	0
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
PHF Adj:	0.95	0.95		0.95	0.95	0.95		0.95	0.95		0.95	0.95	0.95		0.95	0.95
PHF Volume:	11	411		0	0	147		11	11		0	11	0		0	0
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
Final Vol.:	11	411		0	0	147		11	11		0	11	0		0	0
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx		6.4	xxxx		6.2	xxxxx	xxxx	xxxxx		
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx		3.5	xxxx		3.3	xxxxx	xxxx	xxxxx		
Capacity Module:																
Cnflict Vol:	158	xxxx	xxxxx	xxxx	xxxx	xxxxx		584	xxxx		153	xxxx	xxxx	xxxxx		
Potent Cap.:	1434	xxxx	xxxxx	xxxx	xxxx	xxxxx		477	xxxx		899	xxxx	xxxx	xxxxx		
Move Cap.:	1434	xxxx	xxxxx	xxxx	xxxx	xxxxx		475	xxxx		899	xxxx	xxxx	xxxxx		
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx		0.02	xxxx		0.01	xxxx	xxxx	xxxx		
Level Of Service Module:																
Queue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Stopped Del:	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*				
Movement:	LT - LTR - RT				LT - LTR - RT				LT - LTR - RT				LT - LTR - RT			
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	621	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx				
Shrd StpDel:	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	11.0	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	A	*	*	*	*	*	*	B	*	*	*	*				
ApproachDel:	xxxxxx			xxxxxx				11.0			xxxxxx					
ApproachLOS:	*			*				B			*					

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #17 Mathews Road/South Manthey Road

Cycle (sec): 100 Critical Vol./Cap. (X): 1.005
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 36.3
Optimal Cycle: 0 Level Of Service: E

Street Name:	South Manthey Road								Mathews Road							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10		10	7	10		10	7	10		10	7	10		10
Lanes:	0	0	1!	0 0	0	0	1!	0 0	1	0	0	1 0	1	0	1	0 1
Volume Module: 430-530																
Base Vol:	10	40		30	80	30		20	30	590		10	30	310		50
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	10	40		30	80	30		20	30	590		10	30	310		50
Added Vol:	0	0		0	0	0		0	0	0		0	0	0		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	10	40		30	80	30		20	30	590		10	30	310		50
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95
PHF Volume:	11	42		32	84	32		21	32	621		11	32	326		53
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	11	42		32	84	32		21	32	621		11	32	326		53
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Final Vol.:	11	42		32	84	32		21	32	621		11	32	326		53
Saturation Flow Module:																
Adjustment:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Lanes:	0.12	0.50		0.38	0.62	0.23		0.15	1.00	0.98		0.02	1.00	1.00		1.00
Final Sat.:	64	255		191	316	119		79	569	618		10	545	589		665
Capacity Analysis Module:																
Vol/Sat:	0.17	0.17		0.17	0.27	0.27		0.27	0.06	1.01		1.01	0.06	0.55		0.08
Crit Moves:	****				****					****				****		
Delay/Veh:	10.9	10.9		10.9	12.0	12.0		12.0	9.3	60.6		60.6	9.6	15.7		8.5
Delay Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:	10.9	10.9		10.9	12.0	12.0		12.0	9.3	60.6		60.6	9.6	15.7		8.5
LOS by Move:	B	B		B	B	B		B	A	F		F	A	C		A
ApproachDel:	10.9				12.0				58.1				14.3			
Delay Adj:	1.00				1.00				1.00				1.00			
ApprAdjDel:	10.9				12.0				58.1				14.3			
LOS by Appr:	B				B				F				B			

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #18 Mathews Road/I-5 SB Ramps

Average Delay (sec/veh): 4.9 Worst Case Level Of Service: C[20.5]

Street Name:	I-5 SB Ramps									Mathews Road							
Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	1	0	1	0	0
Volume Module: 445-545																				
Base Vol:	0	0	0			120	0		160		0	600		100		50	230		0	
Growth Adj:	1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	0	0	0			120	0		160		0	600		100		50	230		0	
Added Vol:	0	0	0			0	0		0		0	0		0		0	0		0	
PasserByVol:	0	0	0			0	0		0		0	0		0		0	0		0	
Initial Fut:	0	0	0			120	0		160		0	600		100		50	230		0	
User Adj:	1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	0.95	0.95	0.95			0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95	
PHF Volume:	0	0	0			126	0		168		0	632		105		53	242		0	
Reduct Vol:	0	0	0			0	0		0		0	0		0		0	0		0	
Final Vol.:	0	0	0			126	0		168		0	632		105		53	242		0	
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			6.4	xxxx		6.2		xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx	
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	xxxx		3.3		xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx	
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			1032	xxxx		242		xxxx	xxxx		xxxxx		737	xxxx		xxxxx	
Potent Cap.:	xxxx	xxxx	xxxxx			260	xxxx		802		xxxx	xxxx		xxxxx		878	xxxx		xxxxx	
Move Cap.:	xxxx	xxxx	xxxxx			248	xxxx		802		xxxx	xxxx		xxxxx		878	xxxx		xxxxx	
Volume/Cap:	xxxx	xxxx	xxxx			0.51	xxxx		0.21		xxxx	xxxx		xxxx		0.06	xxxx		xxxx	
Level Of Service Module:																				
Queue:	xxxxx	xxxx	xxxxx			2.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx					0.2	xxxx	xxxxx		
Stopped Del:	xxxxx	xxxx	xxxxx			33.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx					9.4	xxxx	xxxxx		
LOS by Move:	*	*	*			D	*	*	*	*	*					A	*	*		
Movement:	LT - LTR - RT					LT - LTR - RT					LT - LTR - RT					LT - LTR - RT				
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx		802		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx		0.8		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shrd StpDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx		10.7		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shared LOS:	*	*	*			*	*		B		*	*		*		*	*		*	
ApproachDel:	xxxxxx					20.5					xxxxxx					xxxxxx				
ApproachLOS:	*					C					*					*				

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #19 Mathews Road/I-5 NB Ramps

Average Delay (sec/veh): 71.3 Worst Case Level Of Service: F[313.8]

Street Name:	I-5 NB Ramps									Mathews Road							
Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0
Volume Module: 415-515																				
Base Vol:	130		0	280		0		0	0		470	250		0		0	150		630	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Initial Bse:	130		0	280		0		0	0		470	250		0		0	150		630	
Added Vol:	0		0	0		0		0	0		0	0		0		0	0		0	
PasserByVol:	0		0	0		0		0	0		0	0		0		0	0		0	
Initial Fut:	130		0	280		0		0	0		470	250		0		0	150		630	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		0.95	
PHF Volume:	137		0	295		0		0	0		495	263		0		0	158		663	
Reduct Vol:	0		0	0		0		0	0		0	0		0		0	0		0	
Final Vol.:	137		0	295		0		0	0		495	263		0		0	158		663	
Critical Gap Module:																				
Critical Gp:	6.4	xxxx		6.2	xxxxx	xxxx	xxxxx				4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
FollowUpTim:	3.5	xxxx		3.3	xxxxx	xxxx	xxxxx				2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Capacity Module:																				
Cnflict Vol:	1742	xxxx		263	xxxx	xxxx	xxxxx				821	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Potent Cap.:	96	xxxx		780	xxxx	xxxx	xxxxx				817	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Move Cap.:	50	xxxx		780	xxxx	xxxx	xxxxx				817	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Volume/Cap:	2.74	xxxx		0.38	xxxx	xxxx	xxxx				0.61	xxxx	xxxx	xxxx	xxxx	xxxx				
Level Of Service Module:																				
Queue:	14.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx					4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Stopped Del:	963.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx					15.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	F	*	*	*	*	*					C	*	*	*	*	*				
Movement:	LT - LTR - RT					LT - LTR - RT					LT - LTR - RT					LT - LTR - RT				
Shared Cap.:	xxxx	xxxx		780	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	xxxxx	xxxx		1.8	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shrd StpDel:	xxxxx	xxxx		12.4	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	*	*		B	*	*	*				*	*	*	*	*	*				
ApproachDel:	313.8				xxxxxx						xxxxxx					xxxxxx				
ApproachLOS:	F				*						*					*				

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2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #20 Howard Road/ Wolfe Road

Average Delay (sec/veh): 10.9 Worst Case Level Of Service: E[38.3]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0
Volume Module:																
Base Vol:	10	150		20	20	10		10	150	340		10	10	100		20
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	10	150		20	20	10		10	150	340		10	10	100		20
Added Vol:	0	0		0	0	0		0	0	0		0	0	0		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	10	150		20	20	10		10	150	340		10	10	100		20
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95
PHF Volume:	11	158		21	21	11		11	158	358		11	11	105		21
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Final Vol.:	11	158		21	21	11		11	158	358		11	11	105		21
Critical Gap Module:																
Critical Gp:	7.1	6.5		6.2	7.1	6.5		6.2	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0		3.3	3.5	4.0		3.3	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	826	826		363	905	821		116	126	xxxx	xxxxx		368	xxxx	xxxxx	
Potent Cap.:	293	309		686	259	312		942	1473	xxxx	xxxxx		1201	xxxx	xxxxx	
Move Cap.:	255	271		686	123	273		942	1473	xxxx	xxxxx		1201	xxxx	xxxxx	
Volume/Cap:	0.04	0.58		0.03	0.17	0.04		0.01	0.11	xxxx	xxxx		0.01	xxxx	xxxx	
Level Of Service Module:																
Queue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.4	xxxx	xxxxx		0.0	xxxx	xxxxx	
Stopped Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		7.7	xxxx	xxxxx		8.0	xxxx	xxxxx	
LOS by Move:	*	*	*		*	*	*		A	*	*		A	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	289	xxxxx		xxxx	191	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	4.3	xxxxx		xxxxx	0.8	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd StpDel:	xxxxx	38.3	xxxxx		xxxxx	29.1	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	E	*		*	D	*		*	*	*		*	*	*	
ApproachDel:	38.3				29.1				xxxxxx				xxxxxx			
ApproachLOS:	E				D				*				*			

Weston Ranch Towne Center EIR
Near-Term Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 French Camp Road/Seconday Project Driveway

Cycle (sec): 100 Critical Vol./Cap. (X): 0.268
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 2.3
Optimal Cycle: 34 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10		10	7	10		10	7	10		10	7	10		10
Lanes:	0	0	0	0 0	0	0	0	0 0	0	0	1	0 0	0	0	1	0 0
Volume Module:																
Base Vol:	0	0		0	0	0		0	0	330		0	0	510		0
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	0	0		0	0	0		0	0	330		0	0	510		0
Added Vol:	0	0		0	0	0		0	0	0		0	0	0		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	0	0		0	0	0		0	0	330		0	0	510		0
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	0	0		0	0	0		0	0	330		0	0	510		0
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	0	0		0	0	0		0	0	330		0	0	510		0
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Final Vol.:	0	0		0	0	0		0	0	330		0	0	510		0
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Lanes:	0.00	0.00		0.00	0.00	0.00		0.00	0.00	1.00		0.00	0.00	1.00		0.00
Final Sat.:	0	0		0	0	0		0	0	1900		0	0	1900		0
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.17		0.00	0.00	0.27		0.00
Crit Moves:									****					****		
Green/Cycle:	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.71		0.00	0.00	0.93		0.00
Volume/Cap:	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.24		0.00	0.00	0.29		0.00
Delay/Veh:	0.0	0.0		0.0	0.0	0.0		0.0	0.0	5.1		0.0	0.0	0.4		0.0
User DelAdj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:	0.0	0.0		0.0	0.0	0.0		0.0	0.0	5.1		0.0	0.0	0.4		0.0
HCM2kAvg:	0	0		0	0	0		0	0	4		0	0	2		0

Weston Ranch Towne Center EIR
Near-Term Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #22 French Camp Road/Realigned Manthey Road

Cycle (sec):	100	Critical Vol./Cap. (X):	0.283
Loss Time (sec):	0 (Y+R = 4 sec)	Average Delay (sec/veh):	2.1
Optimal Cycle:	34	Level Of Service:	A

Street Name:	S. Manthey Road							French Camp Road							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0 0	1!	0	0	0 0	1!	0	0	0 0	1	0	0	0 1	0	0	1
Volume Module:																
Base Vol:	0	0	0	0	0	0	0	0	330	0	0	510	0			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	0	0	0	0	0	0	0	330	0	0	510	0				
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	0	0	0	0	0	0	0	330	0	0	510	0				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95				
PHF Volume:	0	0	0	0	0	0	0	347	0	0	537	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	0	0	0	0	0	0	347	0	0	537	0				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Final Vol.:	0	0	0	0	0	0	0	347	0	0	537	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Lanes:	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00				
Final Sat.:	0	1900	0	0	1900	0	0	1900	0	0	1900	1900				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.28	0.00				
Crit Moves:							****				****					
Green/Cycle:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.93	0.00				
Volume/Cap:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.30	0.00				
Delay/Veh:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	0.4	0.0				
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
AdjDel/Veh:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	0.4	0.0				
HCM2kAvg:	0	0	0	0	0	0	0	4	0	0	2	0				

NEAR TERM PLUS PROJECT

Weston Ranch Towne Center EIR
Near-Term With Project
AM Peak Hour

Scenario Report

Scenario:	Exist+App+Proj AM
Command:	Ex+App+Proj AM
Volume:	Existing + Approved + Project AM
Geometry:	Existing Plus Approved Plus Project
Impact Fee:	Default Impact Fee
Trip Generation:	Project AM
Trip Distribution:	Existing
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Weston Ranch Towne Center EIR
Near-Term With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Carolyn Weston Boulevard/McDougald Boulevard

Cycle (sec): 60 Critical Vol./Cap. (X): 0.650
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 24.6
Optimal Cycle: 54 Level Of Service: C

Street Name:	McDougald Boulevard						Carolyn Weston Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0 1	0 1		1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module: 745-845												
Base Vol:	130	20	250	40	20	10	5	620	70	140	340	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	20	250	40	20	10	5	620	70	140	340	10
Added Vol:	4	0	0	0	0	0	0	7	7	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	134	20	250	40	20	10	5	627	77	140	344	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	141	21	263	42	21	11	5	660	81	147	362	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	141	21	263	42	21	11	5	660	81	147	362	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	141	21	263	42	21	11	5	660	81	147	362	11
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.95	0.95	0.95	0.93	0.93	0.95	0.95	0.95
Lanes:	1.00	1.00	1.00	1.00	0.67	0.33	1.00	1.78	0.22	1.00	1.94	0.06
Final Sat.:	1805	1900	1615	1805	1203	602	1805	3164	389	1805	3494	102
Capacity Analysis Module:												
Vol/Sat:	0.08	0.01	0.16	0.02	0.02	0.02	0.00	0.21	0.21	0.08	0.10	0.10
Crit Moves:			****	****				****		****		
Green/Cycle:	0.14	0.22	0.22	0.12	0.20	0.20	0.16	0.28	0.28	0.12	0.23	0.23
Volume/Cap:	0.56	0.05	0.74	0.20	0.09	0.09	0.02	0.74	0.74	0.70	0.44	0.44
Delay/Veh:	27.1	18.5	30.1	24.4	19.8	19.8	21.1	22.7	22.7	35.5	20.0	20.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.1	18.5	30.1	24.4	19.8	19.8	21.1	22.7	22.7	35.5	20.0	20.0
HCM2kAvg:	3	0	6	1	0	0	0	8	8	4	3	3

Weston Ranch Towne Center EIR
Near-Term With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Carolyn Weston Boulevard/S. Manthey Road

Cycle (sec): 90 Critical Vol./Cap. (X): 0.498
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 23.3
Optimal Cycle: 50 Level Of Service: C

Street Name:	S. Manthey Road						Carolyn Weston Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module: 745-845												
Base Vol:	100	30	50	30	20	30	50	830	30	60	360	50
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	100	30	50	30	20	30	50	830	30	60	360	50
Added Vol:	4	0	56	0	0	0	0	0	7	69	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	104	30	106	30	20	30	50	830	37	129	360	50
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	109	32	112	32	21	32	53	874	39	136	379	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	109	32	112	32	21	32	53	874	39	136	379	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	109	32	112	32	21	32	53	874	39	136	379	53
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.94	0.94	0.95	0.93	0.93
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.91	0.09	1.00	1.76	0.24
Final Sat.:	1805	1900	1615	1805	1900	1615	1805	3435	153	1805	3113	432
Capacity Analysis Module:												
Vol/Sat:	0.06	0.02	0.07	0.02	0.01	0.02	0.03	0.25	0.25	0.08	0.12	0.12
Crit Moves:	****					****		****		****		
Green/Cycle:	0.11	0.13	0.27	0.09	0.11	0.11	0.23	0.46	0.46	0.14	0.37	0.37
Volume/Cap:	0.55	0.13	0.26	0.19	0.10	0.18	0.12	0.55	0.55	0.55	0.33	0.33
Delay/Veh:	41.1	34.8	26.3	38.4	36.2	36.7	27.3	17.8	17.8	38.8	20.7	20.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.1	34.8	26.3	38.4	36.2	36.7	27.3	17.8	17.8	38.8	20.7	20.7
HCM2kAvg:	4	1	2	1	1	1	1	8	8	4	4	4

Weston Ranch Towne Center EIR
Near-Term With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Downing Avenue/French Camp Turnpike

Average Delay (sec/veh): 30.9 Worst Case Level Of Service: F[254.7]

Street Name:	French Camp Turnpike						Downing Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0	1 0	0 1	0
Volume Module: 730-830												
Base Vol:	110	10	10	30	10	90	150	270	140	100	320	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	110	10	10	30	10	90	150	270	140	100	320	20
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	110	10	10	30	10	90	150	270	140	100	320	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	116	11	11	32	11	95	158	284	147	105	337	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	116	11	11	32	11	95	158	284	147	105	337	21
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1284	1242	358	1242	1305	347	358	xxxx	xxxxx	432	xxxx	xxxxx
Potent Cap.:	143	176	691	153	162	700	1212	xxxx	xxxxx	1139	xxxx	xxxxx
Move Cap.:	97	139	691	119	127	700	1212	xxxx	xxxxx	1139	xxxx	xxxxx
Volume/Cap:	1.19	0.08	0.02	0.27	0.08	0.14	0.13	xxxx	xxxx	0.09	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	0.3	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.4	xxxx	xxxxx	8.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	107	xxxxx	xxxx	283	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	9.3	xxxxx	xxxxx	2.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	255	xxxxx	xxxxx	29.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	D	*	*	*	*	*	*	*
ApproachDel:	254.7			29.0			xxxxxx			xxxxxx		
ApproachLOS:	F			D			*			*		

Near-Term with Project
3: Downing Avenue & I-5 SB Ramps

AM Peak Hour
3/3/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95						1.00	0.88
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		5085	1583	1770	3539						1770	2787
Flt Permitted		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (perm)		5085	1583	1770	3539						1770	2787
Volume (vph)	0	846	140	30	250	0	0	0	0	430	0	399
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	891	147	32	263	0	0	0	0	453	0	420
RTOR Reduction (vph)	0	0	78	0	0	0	0	0	0	0	0	283
Lane Group Flow (vph)	0	891	69	32	263	0	0	0	0	0	453	137
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		32.8	32.8	2.4	39.2						22.8	22.8
Effective Green, g (s)		32.8	32.8	2.4	39.2						22.8	22.8
Actuated g/C Ratio		0.47	0.47	0.03	0.56						0.33	0.33
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)		2383	742	61	1982						577	908
v/s Ratio Prot		c0.18		c0.02	0.07							
v/s Ratio Perm			0.04								0.26	0.05
v/c Ratio		0.37	0.09	0.52	0.13						0.79	0.15
Uniform Delay, d1		12.0	10.3	33.2	7.3						21.4	16.7
Progression Factor		1.00	1.00	0.92	0.98						1.00	1.00
Incremental Delay, d2		0.5	0.2	7.7	0.1						6.9	0.1
Delay (s)		12.4	10.6	38.4	7.3						28.3	16.8
Level of Service		B	B	D	A						C	B
Approach Delay (s)		12.2			10.7			0.0			22.8	
Approach LOS		B			B			A			C	

Intersection Summary			
HCM Average Control Delay	16.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Near-Term with Project
4: Downing Avenue & I-5 NB Ramps

AM Peak Hour
3/3/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	0.97	1.00			0.95			1.00	1.00			
Frt	1.00	1.00			0.90			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.96	1.00			
Satd. Flow (prot)	3433	1863			3202			1783	1583			
Flt Permitted	0.95	1.00			1.00			0.96	1.00			
Satd. Flow (perm)	3433	1863			3202			1783	1583			
Volume (vph)	746	530	0	0	190	330	90	10	30	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)	785	558	0	0	200	347	95	11	32	0	0	0
RTOR Reduction (vph)	0	0	0	0	188	0	0	0	28	0	0	0
Lane Group Flow (vph)	785	558	0	0	359	0	0	106	4	0	0	0
Turn Type	Prot						Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	18.0	54.0			32.0			8.0	8.0			
Effective Green, g (s)	18.0	54.0			32.0			8.0	8.0			
Actuated g/C Ratio	0.26	0.77			0.46			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)	883	1437			1464			204	181			
v/s Ratio Prot	c0.23	c0.30			0.11							
v/s Ratio Perm								0.06	0.00			
v/c Ratio	0.89	0.39			0.24			0.52	0.02			
Uniform Delay, d1	25.0	2.6			11.6			29.2	27.5			
Progression Factor	1.13	1.12			1.00			1.00	1.00			
Incremental Delay, d2	10.2	0.7			0.4			2.2	0.0			
Delay (s)	38.4	3.7			12.0			31.4	27.6			
Level of Service	D	A			B			C	C			
Approach Delay (s)		24.0			12.0			30.5			0.0	
Approach LOS		C			B			C			A	

Intersection Summary			
HCM Average Control Delay	21.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Weston Ranch Towne Center EIR
Near-Term With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 William Moss Boulevard/McDougald Boulevard

Cycle (sec): 60 Critical Vol./Cap. (X): 0.302
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 20.0
Optimal Cycle: 50 Level Of Service: C

Street Name:	McDougald Boulevard						William Moss Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module: 745-845												
Base Vol:	10	170	70	50	90	110	70	50	10	60	110	90
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	170	70	50	90	110	70	50	10	60	110	90
Added Vol:	4	0	0	7	0	0	0	0	7	0	0	4
PasserByVol:	0	0	30	0	0	0	0	0	0	10	0	0
Initial Fut:	14	170	100	57	90	110	70	50	17	70	110	94
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	15	179	105	60	95	116	74	53	18	74	116	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	179	105	60	95	116	74	53	18	74	116	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	15	179	105	60	95	116	74	53	18	74	116	99
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.90	0.90	0.95	0.87	0.87	0.95	0.91	0.91	0.95	0.88	0.88
Lanes:	1.00	1.26	0.74	1.00	1.00	1.00	1.00	1.49	0.51	1.00	1.08	0.92
Final Sat.:	1805	2148	1264	1805	1657	1657	1805	2592	881	1805	1812	1549
Capacity Analysis Module:												
Vol/Sat:	0.01	0.08	0.08	0.03	0.06	0.07	0.04	0.02	0.02	0.04	0.06	0.06
Crit Moves:		****		****			****				****	
Green/Cycle:	0.16	0.27	0.27	0.12	0.23	0.23	0.13	0.20	0.20	0.14	0.21	0.21
Volume/Cap:	0.05	0.30	0.30	0.28	0.25	0.30	0.30	0.10	0.10	0.29	0.30	0.30
Delay/Veh:	21.4	17.5	17.5	25.0	19.1	19.4	24.2	19.6	19.6	23.7	20.3	20.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.4	17.5	17.5	25.0	19.1	19.4	24.2	19.6	19.6	23.7	20.3	20.3
HCM2kAvg:	0	2	2	1	2	2	2	1	1	2	2	2

Weston Ranch Towne Center EIR
Near-Term With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 William Moss Boulevard/S. Manthey Road

Cycle (sec): 60 Critical Vol./Cap. (X): 0.227
Loss Time (sec): 12 (Y+R = 5 sec) Average Delay (sec/veh): 14.5
Optimal Cycle: 39 Level Of Service: B

Street Name:							William Moss Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 0	0	0 0	0 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module: 7-8												
Base Vol:	30	40	0	0	90	20	140	0	80	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	40	0	0	90	20	140	0	80	0	0	0
Added Vol:	4	60	0	0	76	0	0	0	7	0	0	0
PasserByVol:	0	0	0	0	-10	10	130	0	0	0	0	0
Initial Fut:	34	100	0	0	156	30	270	0	87	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	36	105	0	0	164	32	284	0	92	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	105	0	0	164	32	284	0	92	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	36	105	0	0	164	32	284	0	92	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.98	0.98	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.84	0.16	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	1558	300	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.06	0.00	0.00	0.11	0.11	0.16	0.00	0.06	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.12	0.39	0.00	0.00	0.27	0.27	0.41	0.00	0.41	0.00	0.00	0.00
Volume/Cap:	0.17	0.14	0.00	0.00	0.38	0.38	0.38	0.00	0.14	0.00	0.00	0.00
Delay/Veh:	24.3	11.9	0.0	0.0	18.2	18.2	12.8	0.0	11.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.3	11.9	0.0	0.0	18.2	18.2	12.8	0.0	11.2	0.0	0.0	0.0
HCM2kAvg:	1	1	0	0	3	3	3	0	1	0	0	0

Weston Ranch Towne Center EIR
Near-Term With Project
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8 Henry Long Boulevard/McDougald Boulevard

Cycle (sec): 100 | Critical Vol./Cap. (X): 0.362
Loss Time (sec): 0 (Y+R = 5 sec) | Average Delay (sec/veh): 10.3
Optimal Cycle: 0 | Level Of Service: B

Street Name:	McDougald Boulevard						Henry Long Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	1! 0	0	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	40	30	10	20	50	110	90	120	70	10	100	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	30	10	20	50	110	90	120	70	10	100	30
Added Vol:	0	4	0	0	7	0	0	0	0	0	0	0
PasserByVol:	100	40	-10	-20	30	0	20	-120	100	-10	-100	-30
Initial Fut:	140	74	0	0	87	110	110	0	170	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	147	78	0	0	92	116	116	0	179	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	147	78	0	0	92	116	116	0	179	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	147	78	0	0	92	116	116	0	179	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.65	0.35	0.00	1.00	0.44	0.56	1.00	0.00	1.00	0.00	1.00	0.00
Final Sat.:	407	215	0	0	299	378	565	0	697	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.36	0.36	xxxx	xxxx	0.31	0.31	0.21	xxxx	0.26	xxxx	xxxx	xxxx
Crit Moves:	****				****				****			
Delay/Veh:	11.7	11.7	0.0	0.0	9.9	9.9	10.3	0.0	9.2	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.7	11.7	0.0	0.0	9.9	9.9	10.3	0.0	9.2	0.0	0.0	0.0
LOS by Move:	B	B	*	*	A	A	B	*	A	*	*	*
ApproachDel:	11.7			9.9			9.6			xxxxxx		
Delay Adj:	1.00			1.00			1.00			xxxxx		
ApprAdjDel:	11.7			9.9			9.6			xxxxxx		
LOS by Appr:	B			A			A			*		

Weston Ranch Towne Center EIR
Near-Term With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #9 Henry Long Boulevard/Manthey Road

Cycle (sec): 100 | Critical Vol./Cap. (X): 0.257
Loss Time (sec): 0 (Y+R = 5 sec) | Average Delay (sec/veh): 7.9
Optimal Cycle: 0 | Level Of Service: A

Street Name:	Manthey Road						Henry Long Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 1	0 0	0	0 0	0 1	0	0 0	1! 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	130	40	0	0	160	10	30	0	120	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	40	0	0	160	10	30	0	120	0	0	0
Added Vol:	0	0	0	0	0	82	65	0	0	0	0	0
PasserByVol:	-130	-40	0	0	-160	150	10	0	-120	0	0	0
Initial Fut:	0	0	0	0	0	242	105	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	0	0	255	111	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	255	111	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	0	0	255	111	0	0	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	0	0	0	0	0	991	757	0	0	0	0	0
Capacity Analysis Module:												
Vol/Sat:	xxxx	xxxx	xxxx	xxxx	xxxx	0.26	0.15	xxxx	xxxx	xxxx	xxxx	xxxx
Crit Moves:						****	****					
Delay/Veh:	0.0	0.0	0.0	0.0	0.0	7.8	8.3	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.0	0.0	7.8	8.3	0.0	0.0	0.0	0.0	0.0
LOS by Move:	*	*	*	*	*	A	A	*	*	*	*	*
ApproachDel:	xxxxxx			7.8			8.3			xxxxxx		
Delay Adj:	xxxxx			1.00			1.00			xxxxx		
ApprAdjDel:	xxxxxx			7.8			8.3			xxxxxx		
LOS by Appr:	*			A			A			*		

Weston Ranch Towne Center EIR
Near-Term With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Wolfe Road / French Camp Road

Cycle (sec): 60 Critical Vol./Cap. (X): 0.482
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 35.6
Optimal Cycle: 53 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	1! 0	0	1 0	1 0	1	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	10	20	10	120	80	40	30	320	140	20	120	90
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	20	10	120	80	40	30	320	140	20	120	90
Added Vol:	0	0	2	3	0	0	0	10	0	1	6	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	20	12	123	80	40	30	330	140	21	126	92
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	11	21	13	129	84	42	32	347	147	22	133	97
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	21	13	129	84	42	32	347	147	22	133	97
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	11	21	13	129	84	42	32	347	147	22	133	97
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.95	1.00	0.85	0.95	0.96	0.96	0.95	0.94	0.94
Lanes:	0.24	0.48	0.28	1.00	1.00	1.00	1.00	0.70	0.30	1.00	0.58	0.42
Final Sat.:	430	859	515	1805	1900	1615	1805	1274	540	1805	1029	751
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.07	0.04	0.03	0.02	0.27	0.27	0.01	0.13	0.13
Crit Moves:		****			****			****		****		
Green/Cycle:	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.28	0.28	0.12	0.24	0.24
Volume/Cap:	0.15	0.15	0.15	0.43	0.27	0.16	0.11	0.96	0.96	0.10	0.55	0.55
Delay/Veh:	21.6	21.6	21.6	23.4	22.3	21.7	21.5	51.4	51.4	23.9	21.7	21.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.6	21.6	21.6	23.4	22.3	21.7	21.5	51.4	51.4	23.9	21.7	21.7
HCM2kAvg:	1	1	1	3	2	1	1	15	15	0	4	4

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #11 French Camp Road/McDougald Boulevard

Average Delay (sec/veh): 10.5 Worst Case Level Of Service: E[46.3]

Street Name:	McDougald Boulevard						French Camp Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 0	0	1 0	0 0	1	0 1	0 0	0	0 0	0 1	0
Volume Module: 7-8												
Base Vol:	0	0	0	120	0	10	20	430	0	0	220	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	120	0	10	20	430	0	0	220	60
Added Vol:	0	0	0	7	0	0	0	15	0	0	9	4
PasserByVol:	0	0	0	120	0	0	0	0	0	0	0	130
Initial Fut:	0	0	0	247	0	10	20	445	0	0	229	194
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	260	0	11	21	468	0	0	241	204
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	260	0	11	21	468	0	0	241	204
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	854	xxxx	343	445	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	332	xxxx	704	1126	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	327	xxxx	704	1126	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.79	xxxx	0.01	0.02	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	6.5	xxxx	0.0	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	47.8	xxxx	10.2	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	E	*	B	A	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			46.3			xxxxxx			xxxxxx		
ApproachLOS:	*			E			*			*		

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #12 Manthey Road/French Camp Road

Cycle (sec): 100 Critical Vol./Cap. (X): 1.152
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 66.7
Optimal Cycle: 0 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0 0	1! 0	0		0 0	1! 0	0		0 1	0 1	0		1 0	1	1	0
Volume Module:																
Base Vol:	20	30	160		240	30	10		10	510	30		250	250	130	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	20	30	160		240	30	10		10	510	30		250	250	130	
Added Vol:	22	0	0		0	0	0		0	332	16		0	420	0	
PasserByVol:	30	-30	0		-240	-30	-10		-10	240	30		0	130	-130	
Initial Fut:	72	0	160		0	0	0		0	1082	76		250	800	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	76	0	168		0	0	0		0	1139	80		263	842	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	76	0	168		0	0	0		0	1139	80		263	842	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	76	0	168		0	0	0		0	1139	80		263	842	0	
Saturation Flow Module:																
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.31	0.00	0.69		0.00	1.00	0.00		0.00	1.87	0.13		1.00	2.00	0.00	
Final Sat.:	172	0	382		0	0	0		0	989	70		491	1054	0	
Capacity Analysis Module:																
Vol/Sat:	0.44	xxxx	0.44		xxxx	xxxx	xxxx		xxxx	1.15	1.14		0.54	0.80	xxxx	
Crit Moves:	****									****				****		
Delay/Veh:	14.5	0.0	14.5		0.0	0.0	0.0		0.0	112	109.1		18.2	31.4	0.0	
Delay Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	14.5	0.0	14.5		0.0	0.0	0.0		0.0	112	109.1		18.2	31.4	0.0	
LOS by Move:	B	*	B		*	*	*		*	F	F		C	D	*	
ApproachDel:	14.5				xxxxxx					112.1				28.2		
Delay Adj:	1.00				xxxxx					1.00				1.00		
ApprAdjDel:	14.5				xxxxxx					112.1				28.2		
LOS by Appr:	B				*					F				D		

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #13 French Camp Road/I-5 SB Ramps

Average Delay (sec/veh): 51.4 Worst Case Level Of Service: F[153.0]

Street Name:	I-5 SB Ramps								French Camp Road							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0 0	0	0	0	1 1	0	0	1	0 0	1	1	0	1 0	2	0	0
Volume Module:																
Base Vol:	0	0	0		480	0	320		0	470	440		90	310	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		480	0	320		0	470	440		90	310	0	
Added Vol:	0	0	0		0	0	154		0	161	171		0	266	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		480	0	474		0	631	611		90	576	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	0	0	0		505	0	499		0	664	643		95	606	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Final Vol.:	0	0	0		505	0	499		0	664	643		95	606	0	
Critical Gap Module:																
Critical Gp:	xxxxx	xxxx	xxxxx		6.8	xxxx	6.9		xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	xxxxx	xxxx	xxxxx		3.5	xxxx	3.3		xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	xxxx	xxxx	xxxxx		1128	xxxx	303		xxxx	xxxx	xxxxx		1307	xxxx	xxxxx	
Potent Cap.:	xxxx	xxxx	xxxxx		201	xxxx	699		xxxx	xxxx	xxxxx		536	xxxx	xxxxx	
Move Cap.:	xxxx	xxxx	xxxxx		174	xxxx	699		xxxx	xxxx	xxxxx		536	xxxx	xxxxx	
Volume/Cap:	xxxx	xxxx	xxxx		2.91	xxxx	0.71		xxxx	xxxx	xxxx		0.18	xxxx	xxxx	
Level Of Service Module:																
Queue:	xxxxx	xxxx	xxxxx		15.8	xxxx	6.0		xxxxx	xxxx	xxxxx		0.6	xxxx	xxxxx	
Stopped Del:	xxxxx	xxxx	xxxxx		282.4	xxxx	21.9		xxxxx	xxxx	xxxxx		13.2	xxxx	xxxxx	
LOS by Move:	*	*	*		F	*	C		*	*	*		B	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		174	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		15.8	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd StpDel:	xxxxx	xxxx	xxxxx		282.4	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*		F	*	*		*	*	*		*	*	*	
ApproachDel:	xxxxxx				153.0				xxxxxx				xxxxxx			
ApproachLOS:	*				F				*				*			

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2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #14 French Camp Road/I-5 NB Ramps

Average Delay (sec/veh): 241.6 Worst Case Level Of Service: F[1059.2]

Street Name:	I-5 NB Ramps									French Camp Road						
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module:																				
Base Vol:	160		0	120		0		0		0	280	670		0		0	240		270	
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	160		0	120		0		0		0	280	670		0		0	240		270	
Added Vol:	210		0	0		0		0		0	125	36		0		0	56		0	
PasserByVol:	0		0	0		0		0		0	0	0		0		0	0		0	
Initial Fut:	370		0	120		0		0		0	405	706		0		0	296		270	
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	0.95	0.95		0.95	0.95	0.95		0.95		0.95	0.95	0.95		0.95		0.95	0.95		0.95	
PHF Volume:	389		0	126		0		0		0	426	743		0		0	312		284	
Reduct Vol:	0		0	0		0		0		0	0	0		0		0	0		0	
Final Vol.:	389		0	126		0		0		0	426	743		0		0	312		284	
Critical Gap Module:																				
Critical Gp:	6.8	xxxx		6.9	xxxxx	xxxx	xxxxx				4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
FollowUpTim:	3.5	xxxx		3.3	xxxxx	xxxx	xxxxx				2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Capacity Module:																				
Cnflict Vol:	1752	xxxx		372	xxxx	xxxx	xxxxx				596	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Potent Cap.:	78	xxxx		631	xxxx	xxxx	xxxxx				991	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Move Cap.:	52	xxxx		631	xxxx	xxxx	xxxxx				991	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Volume/Cap:	7.49	xxxx		0.20	xxxx	xxxx	xxxx				0.43	xxxx	xxxx	xxxx	xxxx	xxxx				
Level Of Service Module:																				
Queue:	21.3	xxxx		0.7	xxxxx	xxxx	xxxxx				2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Stopped Del:	1399	xxxx		12.1	xxxxx	xxxx	xxxxx				11.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	F	*		B	*	*	*				B	*	*	*	*	*				
Movement:	LT -	LTR -		RT	LT -	LTR -	RT				LT -	LTR -	RT	LT -	LTR -	RT				
Shared Cap.:	52	xxxx	xxxxx		xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	21.3	xxxx	xxxxx		xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shrd StpDel:	1399	xxxx	xxxxx		xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	F	*		*	*	*	*				*	*	*	*	*	*				
ApproachDel:	1059.2				xxxxxx						xxxxxx				xxxxxx					
ApproachLOS:	F				*						*				*					

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2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #15 French Camp Road/Val Dervin Parkway

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Val Dervin Parkway									French Camp Road						
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	1	0	0	1	0	1	0
Volume Module:																				
Base Vol:	50	30		10		30	20		60		250	430		110		330	400		0	
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	50	30		10		30	20		60		250	430		110		330	400		0	
Added Vol:	0	0		0		0	0		0		0	36		0		0	56		0	
PasserByVol:	0	0		0		0	0		0		0	0		0		0	0		0	
Initial Fut:	50	30		10		30	20		60		250	466		110		330	456		0	
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	0.95	0.95		0.95	0.95	0.95		0.95		0.95	0.95	0.95		0.95		0.95	0.95		0.95	
PHF Volume:	53	32		11		32	21		63		263	491		116		347	480		0	
Reduct Vol:	0	0		0		0	0		0		0	0		0		0	0		0	
Final Vol.:	53	32		11		32	21		63		263	491		116		347	480		0	
Critical Gap Module:																				
Critical Gp:	7.5	6.5		6.9		7.5	6.5		6.9		4.1	xxxx	xxxxx			4.1	xxxx	xxxxx		
FollowUpTim:	3.5	4.0		3.3		3.5	4.0		3.3		2.2	xxxx	xxxxx			2.2	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	2020	2249		303		1962	2307		240		480	xxxx	xxxxx			606	xxxx	xxxxx		
Potent Cap.:	35	42		699		39	39		767		1093	xxxx	xxxxx			982	xxxx	xxxxx		
Move Cap.:	0	18		699		0	17		767		1093	xxxx	xxxxx			982	xxxx	xxxxx		
Volume/Cap:	xxxx	1.75		0.02		xxxx	1.27		0.08		0.24	xxxx	xxxx			0.35	xxxx	xxxx		
Level Of Service Module:																				
Queue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		0.9	xxxx	xxxxx			1.6	xxxx	xxxxx		
Stopped Del:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		9.3	xxxx	xxxxx			10.7	xxxx	xxxxx		
LOS by Move:	*	*		*		*	*		*		A	*	*			B	*	*		
Movement:	LT -	LTR -		RT		LT -	LTR -		RT		LT -	LTR -	RT			LT -	LTR -	RT		
Shared Cap.:	xxxx	0		xxxxx		xxxx	0		xxxxx		xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx	xxxxx			1.6	xxxx	xxxxx		
Shrd StpDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx	xxxxx			10.7	xxxx	xxxxx		
Shared LOS:	*	*		*		*	*		*		*	*	*			B	*	*		
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					xxxxxx				
ApproachLOS:	F					F					*					*				

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #16 Yettner Road/ S. Manthey Road

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[11.6]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0 1	0	0	0	0	0	0	1 0	0	0	1!	0 0	0	0	0	0 0
Volume Module:																
Base Vol:	10	200	0	0	300	10	10	0	10	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	200	0	0	300	10	10	0	10	0	0	0	0	0	0	0
Added Vol:	0	22	0	0	16	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	222	0	0	316	10	10	0	10	0	0	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	11	234	0	0	333	11	11	0	11	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	11	234	0	0	333	11	11	0	11	0	0	0	0	0	0	0
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx				
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx				
Capacity Module:																
Cnflict Vol:	343	xxxx	xxxxx	xxxx	xxxx	xxxxx	593	xxxx	338	xxxx	xxxx	xxxxx				
Potent Cap.:	1227	xxxx	xxxxx	xxxx	xxxx	xxxxx	472	xxxx	709	xxxx	xxxx	xxxxx				
Move Cap.:	1227	xxxx	xxxxx	xxxx	xxxx	xxxxx	469	xxxx	709	xxxx	xxxx	xxxxx				
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	xxxx	0.01	xxxx	xxxx	xxxx				
Level Of Service Module:																
Queue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Stopped Del:	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*				
Movement:	LT - LTR - RT				LT - LTR - RT				LT - LTR - RT				LT - LTR - RT			
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	564	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx				
Shrd StpDel:	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	11.6	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	A	*	*	*	*	*	*	B	*	*	*	*				
ApproachDel:	xxxxxx			xxxxxx				11.6			xxxxxx					
ApproachLOS:	*			*				B			*					

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #17 Mathews Road/South Manthey Road

Cycle (sec): 100 Critical Vol./Cap. (X): 1.120
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 59.9
Optimal Cycle: 0 Level Of Service: F

Street Name:	South Manthey Road								Mathews Road							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0 0	1!	0	0	0 0	1!	0	0	1 0	0	0	1 0	1 0	1	0	1
Volume Module: 715-815																
Base Vol:	20	20	20		20	10	30		10	170	20		30	740	90	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	20	20	20		20	10	30		10	170	20		30	740	90	
Added Vol:	0	3	0		13	2	1		2	0	0		0	0	17	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	20	23	20		33	12	31		12	170	20		30	740	107	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	21	24	21		35	13	33		13	179	21		32	779	113	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	21	24	21		35	13	33		13	179	21		32	779	113	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	21	24	21		35	13	33		13	179	21		32	779	113	
Saturation Flow Module:																
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.32	0.36	0.32		0.43	0.16	0.41		1.00	0.89	0.11		1.00	1.00	1.00	
Final Sat.:	179	206	179		248	90	233		564	557	65		630	696	798	
Capacity Analysis Module:																
Vol/Sat:	0.12	0.12	0.12		0.14	0.14	0.14		0.02	0.32	0.32		0.05	1.12	0.14	
Crit Moves:		****			****						****			****		
Delay/Veh:	10.0	10.0	10.0		10.1	10.1	10.1		9.1	11.0	11.0		8.7	92.2	7.9	
Delay Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	10.0	10.0	10.0		10.1	10.1	10.1		9.1	11.0	11.0		8.7	92.2	7.9	
LOS by Move:	A	A	A		B	B	B		A	B	B		A	F	A	
ApproachDel:		10.0				10.1				10.9				79.1		
Delay Adj:		1.00				1.00				1.00				1.00		
ApprAdjDel:		10.0				10.1				10.9				79.1		
LOS by Appr:		A				B				B				F		

Weston Ranch Towne Center EIR
Near-Term With Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #18 Mathews Road/I-5 SB Ramps

Average Delay (sec/veh): 11.5 Worst Case Level Of Service: D[26.2]

Street Name:	I-5 SB Ramps								Mathews Road							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	1	0	1	0	0
Volume Module: 715-815																				
Base Vol:	0		0		0	140		0	410		0	170		40		60	450		0	
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	0		0		0	140		0	410		0	170		40		60	450		0	
Added Vol:	0		0		0	0		0	0		0	2		11		0	17		0	
PasserByVol:	0		0		0	0		0	0		0	0		0		0	0		0	
Initial Fut:	0		0		0	140		0	410		0	172		51		60	467		0	
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95	
PHF Volume:	0		0		0	147		0	432		0	181		54		63	492		0	
Reduct Vol:	0		0		0	0		0	0		0	0		0		0	0		0	
Final Vol.:	0		0		0	147		0	432		0	181		54		63	492		0	
Critical Gap Module:																				
Critical Gp:	xxxxx		xxxx		xxxxx	6.4		xxxx	6.2		xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx	
FollowUpTim:	xxxxx		xxxx		xxxxx	3.5		xxxx	3.3		xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx	
Capacity Module:																				
Cnflict Vol:	xxxx		xxxx		xxxxx	826		xxxx	492		xxxx	xxxx		xxxxx		235	xxxx		xxxxx	
Potent Cap.:	xxxx		xxxx		xxxxx	345		xxxx	581		xxxx	xxxx		xxxxx		1344	xxxx		xxxxx	
Move Cap.:	xxxx		xxxx		xxxxx	332		xxxx	581		xxxx	xxxx		xxxxx		1344	xxxx		xxxxx	
Volume/Cap:	xxxx		xxxx		xxxx	0.44		xxxx	0.74		xxxx	xxxx		xxxx		0.05	xxxx		xxxx	
Level Of Service Module:																				
Queue:	xxxxx		xxxx		xxxxx	2.2		xxxx	xxxxx		xxxxx	xxxx		xxxxx		0.1	xxxx		xxxxx	
Stopped Del:	xxxxx		xxxx		xxxxx	24.2		xxxx	xxxxx		xxxxx	xxxx		xxxxx		7.8	xxxx		xxxxx	
LOS by Move:	*		*		*	C		*	*		*	*		*		A	*		*	
Movement:	LT - LTR - RT					LT - LTR - RT					LT - LTR - RT					LT - LTR - RT				
Shared Cap.:	xxxx		xxxx		xxxxx	xxxx		xxxx	581		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	
SharedQueue:	xxxxx		xxxx		xxxxx	xxxxx		xxxx	6.4		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shrd StpDel:	xxxxx		xxxx		xxxxx	xxxxx		xxxx	26.9		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shared LOS:	*		*		*	*		*	D		*	*		*		*	*		*	
ApproachDel:	xxxxxx					26.2					xxxxxx					xxxxxx				
ApproachLOS:	*					D					*					*				

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #19 Mathews Road/I-5 NB Ramps

Average Delay (sec/veh): 93.0 Worst Case Level Of Service: F[150.0]

Street Name:	I-5 NB Ramps								Mathews Road							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0
Volume Module: 715-815																				
Base Vol:	280		0	1050		0		0	0		120	190		0		0	230		290	
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	280		0	1050		0		0	0		120	190		0		0	230		290	
Added Vol:	13		0	0		0		0	0		0	2		0		0	3		0	
PasserByVol:	0		0	0		0		0	0		0	0		0		0	0		0	
Initial Fut:	293		0	1050		0		0	0		120	192		0		0	233		290	
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95	
PHF Volume:	308		0	1105		0		0	0		126	202		0		0	245		305	
Reduct Vol:	0		0	0		0		0	0		0	0		0		0	0		0	
Final Vol.:	308		0	1105		0		0	0		126	202		0		0	245		305	
Critical Gap Module:																				
Critical Gp:	6.4	xxxx		6.2	xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
FollowUpTim:	3.5	xxxx		3.3	xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Capacity Module:																				
Cnflict Vol:	853	xxxx		202	xxxx	xxxx	xxxxx		551	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Potent Cap.:	332	xxxx		844	xxxx	xxxx	xxxxx		1029	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Move Cap.:	301	xxxx		844	xxxx	xxxx	xxxxx		1029	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Volume/Cap:	1.02	xxxx		1.31	xxxx	xxxx	xxxx		0.12	xxxx	xxxx	xxxx	xxxx	xxxx						
Level Of Service Module:																				
Queue:	11.2	xxxx		xxxxx	xxxxx	xxxx	xxxxx		0.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Stopped Del:	96.9	xxxx		xxxxx	xxxxx	xxxx	xxxxx		9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
LOS by Move:	F	*		*	*	*	*		A	*	*	*	*	*						
Movement:	LT - LTR - RT					LT - LTR - RT					LT - LTR - RT					LT - LTR - RT				
Shared Cap.:	xxxx	xxxx		844	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
SharedQueue:	xxxxx	xxxx		42.4	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Shrd StpDel:	xxxxx	xxxx		164.9	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Shared LOS:	*	*		F	*	*	*		*	*	*	*	*	*						
ApproachDel:	150.0				xxxxxx				xxxxxx				xxxxxx							
ApproachLOS:	F				*				*				*							

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #20 Howard Road/ Wolfe Road

Average Delay (sec/veh): 5.8 Worst Case Level Of Service: B[14.1]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0
Volume Module:																
Base Vol:	10	20	40		100	20	60		10	60	10		10	240	10	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	10	20	40		100	20	60		10	60	10		10	240	10	
Added Vol:	0	0	0		0	0	1		2	2	0		0	1	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	10	20	40		100	20	61		12	62	10		10	241	10	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	11	21	42		105	21	64		13	65	11		11	254	11	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Final Vol.:	11	21	42		105	21	64		13	65	11		11	254	11	
Critical Gap Module:																
Critical Gp:	7.1	6.5	6.2		7.1	6.5	6.2		4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3		3.5	4.0	3.3		2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	418	381	71		407	381	259		264	xxxx	xxxxx		76	xxxx	xxxxx	
Potent Cap.:	549	555	998		558	555	785		1312	xxxx	xxxxx		1536	xxxx	xxxxx	
Move Cap.:	483	546	998		512	546	785		1312	xxxx	xxxxx		1536	xxxx	xxxxx	
Volume/Cap:	0.02	0.04	0.04		0.21	0.04	0.08		0.01	xxxx	xxxx		0.01	xxxx	xxxx	
Level Of Service Module:																
Queue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.0	xxxx	xxxxx		0.0	xxxx	xxxxx	
Stopped Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		7.8	xxxx	xxxxx		7.4	xxxx	xxxxx	
LOS by Move:	*	*	*		*	*	*		A	*	*		A	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	718	xxxxx		xxxx	584	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.3	xxxxx		xxxxx	1.4	xxxxx		xxxxx	xxxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd StpDel:	xxxxx	10.6	xxxxx		xxxxx	14.1	xxxxx		xxxxx	xxxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	B	*		*	B	*		*	*	*		*	*	*	
ApproachDel:	10.6				14.1				xxxxxx				xxxxxx			
ApproachLOS:	B				B				*				*			

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 French Camp Road/Seconday Project Driveway

Cycle (sec): 60 Critical Vol./Cap. (X): 0.460
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 11.3
Optimal Cycle: 46 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0	0	0	0 0	1	0	0	0 1	1	0	1	0 0	0	0	1	0 1
Volume Module:																
Base Vol:	0	0	0		0	0	0		0	550	0		0	280	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		0	0	0		0	550	0		0	280	0	
Added Vol:	0	0	0		20	0	9		14	8	0		0	5	25	
PasserByVol:	0	0	0		10	0	3		10	110	0		0	127	3	
Initial Fut:	0	0	0		30	0	12		24	668	0		0	412	28	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	0	0		30	0	12		24	668	0		0	412	28	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		30	0	12		24	668	0		0	412	28	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	0	0	0		30	0	12		24	668	0		0	412	28	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.95	1.00	0.85		0.95	1.00	1.00		1.00	1.00	0.85	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Final Sat.:	0	0	0		1805	0	1615		1805	1900	0		0	1900	1615	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.02	0.00	0.01		0.01	0.35	0.00		0.00	0.22	0.02	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.12	0.00	0.17		0.24	0.57	0.00		0.00	0.44	0.44	
Volume/Cap:	0.00	0.00	0.00		0.14	0.00	0.04		0.06	0.62	0.00		0.00	0.49	0.04	
Delay/Veh:	0.0	0.0	0.0		24.1	0.0	21.1		17.7	9.8	0.0		0.0	12.3	9.5	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	0.0		24.1	0.0	21.1		17.7	9.8	0.0		0.0	12.3	9.5	
HCM2kAvg:	0	0	0		1	0	0		0	9	0		0	6	0	

Weston Ranch Towne Center EIR
Near-Term With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #22 French Camp Road/Realigned Manthey Road

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Cycle (sec):          90              Critical Vol./Cap. (X):        0.428
Loss Time (sec):      12 (Y+R =  4 sec) Average Delay (sec/veh):     17.9
Optimal Cycle:        46              Level Of Service:               B
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****

Street Name:	S. Manthey Road						French Camp Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0 0 0 0			2 0 1 0 1			1 0 2 0 0			0 0 1 1 1		
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	550	0	0	280	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	550	0	0	280	0
Added Vol:	0	0	0	328	0	5	8	20	0	0	25	417
PasserByVol:	0	0	0	185	0	17	45	75	0	0	123	37
Initial Fut:	0	0	0	513	0	22	53	645	0	0	428	454
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	540	0	23	56	679	0	0	451	478
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	540	0	23	56	679	0	0	451	478
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	540	0	23	56	679	0	0	451	478
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.92	1.00	0.85	0.95	0.95	1.00	1.00	0.88	0.88
Lanes:	0.00	0.00	0.00	2.00	1.00	1.00	1.00	2.00	0.00	0.00	1.46	1.54
Final Sat.:	0	0	0	3502	1900	1615	1805	3610	0	0	2425	2573
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.01	0.03	0.19	0.00	0.00	0.19	0.19
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.36	0.00	0.28	0.08	0.36	0.00	0.00	0.43	0.79
Volume/Cap:	0.00	0.00	0.00	0.43	0.00	0.05	0.40	0.52	0.00	0.00	0.43	0.24
Delay/Veh:	0.0	0.0	0.0	22.2	0.0	24.0	41.3	23.1	0.0	0.0	18.0	2.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	22.2	0.0	24.0	41.3	23.1	0.0	0.0	18.0	2.5
HCM2kAvg:	0	0	0	6	0	0	2	8	0	0	6	2

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Weston Ranch Towne Center EIR
Near-Term With Project
PM Peak Hour

Scenario Report

Scenario:	Exist+App+Proj PM
Command:	Ex+App+Proj PM
Volume:	Existing + Approved + Project PM
Geometry:	Existing Plus Approved Plus Project
Impact Fee:	Default Impact Fee
Trip Generation:	Project PM
Trip Distribution:	Existing
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Weston Ranch Towne Center EIR
Near-Term With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Carolyn Weston Boulevard/McDougald Boulevard

Cycle (sec): 60 Critical Vol./Cap. (X): 0.595
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 28.7
Optimal Cycle: 50 Level Of Service: C

Street Name:	McDougald Boulevard						Carolyn Weston Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0 1 0 1			1 0 0 1 0			1 0 1 1 0			1 0 1 1 0		
Volume Module: 5-6												
Base Vol:	50	10	150	50	5	5	10	550	30	300	1000	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	10	150	50	5	5	10	550	30	300	1000	20
Added Vol:	17	0	0	0	0	0	0	17	17	0	17	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	67	10	150	50	5	5	10	567	47	300	1017	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	71	11	158	53	5	5	11	597	49	316	1071	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	11	158	53	5	5	11	597	49	316	1071	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	71	11	158	53	5	5	11	597	49	316	1071	21
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.93	0.93	0.95	0.94	0.94	0.95	0.95	0.95
Lanes:	1.00	1.00	1.00	1.00	0.50	0.50	1.00	1.85	0.15	1.00	1.96	0.04
Final Sat.:	1805	1900	1615	1805	879	879	1805	3294	273	1805	3530	69
Capacity Analysis Module:												
Vol/Sat:	0.04	0.01	0.10	0.03	0.01	0.01	0.01	0.18	0.18	0.17	0.30	0.30
Crit Moves:			****	****			****				****	
Green/Cycle:	0.12	0.17	0.17	0.12	0.17	0.17	0.12	0.23	0.23	0.22	0.33	0.33
Volume/Cap:	0.33	0.03	0.59	0.25	0.04	0.04	0.05	0.79	0.79	0.79	0.91	0.91
Delay/Veh:	25.3	21.0	26.4	24.7	21.0	21.0	23.6	27.1	27.1	32.4	29.5	29.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.3	21.0	26.4	24.7	21.0	21.0	23.6	27.1	27.1	32.4	29.5	29.5
HCM2kAvg:	2	0	4	1	0	0	0	8	8	8	14	14

Weston Ranch Towne Center EIR
Near-Term With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Carolyn Weston Boulevard/S. Manthey Road

Cycle (sec): 90 Critical Vol./Cap. (X): 0.849
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 38.7
Optimal Cycle: 94 Level Of Service: D

Street Name:	S. Manthey Road						Carolyn Weston Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module: 5-6												
Base Vol:	200	90	130	190	70	170	200	500	50	300	950	200
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	200	90	130	190	70	170	200	500	50	300	950	200
Added Vol:	17	0	200	0	0	0	0	0	17	201	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	217	90	330	190	70	170	200	500	67	501	950	200
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	228	95	347	200	74	179	211	526	71	527	1000	211
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	228	95	347	200	74	179	211	526	71	527	1000	211
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	228	95	347	200	74	179	211	526	71	527	1000	211
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.93	0.93	0.95	0.93	0.93
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.76	0.24	1.00	1.65	0.35
Final Sat.:	1805	1900	1615	1805	1900	1615	1805	3126	419	1805	2905	612
Capacity Analysis Module:												
Vol/Sat:	0.13	0.05	0.22	0.11	0.04	0.11	0.12	0.17	0.17	0.29	0.34	0.34
Crit Moves:	****					****	****				****	
Green/Cycle:	0.15	0.14	0.48	0.14	0.13	0.13	0.14	0.20	0.20	0.34	0.41	0.41
Volume/Cap:	0.85	0.36	0.44	0.79	0.30	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	59.0	35.9	15.7	53.3	36.1	64.6	61.1	44.3	44.3	38.0	29.3	29.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	59.0	35.9	15.7	53.3	36.1	64.6	61.1	44.3	44.3	38.0	29.3	29.3
HCM2kAvg:	9	3	5	8	2	7	9	11	11	16	17	17

Weston Ranch Towne Center EIR
Near-Term With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Downing Avenue/French Camp Turnpike

Average Delay (sec/veh): 90.2 Worst Case Level Of Service: F[441.7]

Street Name:	French Camp Turnpike						Downing Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0	1 0	0 1	0
Volume Module: 4-5												
Base Vol:	230	10	10	10	10	100	150	250	120	10	350	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	230	10	10	10	10	100	150	250	120	10	350	10
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	230	10	10	10	10	100	150	250	120	10	350	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	242	11	11	11	11	105	158	263	126	11	368	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	242	11	11	11	11	105	158	263	126	11	368	11
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1095	1042	326	1047	1100	374	379	xxxx	xxxxx	389	xxxx	xxxxx
Potent Cap.:	193	231	720	208	214	677	1191	xxxx	xxxxx	1180	xxxx	xxxxx
Move Cap.:	139	199	720	176	184	677	1191	xxxx	xxxxx	1180	xxxx	xxxxx
Volume/Cap:	1.74	0.05	0.01	0.06	0.06	0.16	0.13	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.5	xxxx	xxxxx	0.0	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx	8.1	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	146	xxxxx	xxxx	463	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	19.7	xxxxx	xxxxx	1.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	442	xxxxx	xxxxx	15.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	C	*	*	*	*	*	*	*
ApproachDel:	441.7			15.7			xxxxxx			xxxxxx		
ApproachLOS:	F			C			*			*		

Near-Term with Project
3: Downing Avenue & I-5 SB Ramps

PM Peak Hour
3/3/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95						1.00	0.88
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		5085	1583	1770	3539						1770	2787
Flt Permitted		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (perm)		5085	1583	1770	3539						1770	2787
Volume (vph)	0	910	160	20	590	0	0	0	0	370	0	1001
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	958	168	21	621	0	0	0	0	389	0	1054
RTOR Reduction (vph)	0	0	105	0	0	0	0	0	0	0	0	122
Lane Group Flow (vph)	0	958	63	21	621	0	0	0	0	0	389	932
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		26.2	26.2	2.4	32.6						29.4	29.4
Effective Green, g (s)		26.2	26.2	2.4	32.6						29.4	29.4
Actuated g/C Ratio		0.37	0.37	0.03	0.47						0.42	0.42
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)		1903	592	61	1648						743	1171
v/s Ratio Prot		c0.19		0.01	c0.18							
v/s Ratio Perm			0.04								0.22	c0.33
v/c Ratio		0.50	0.11	0.34	0.38						0.52	0.80
Uniform Delay, d1		16.9	14.3	33.0	12.1						15.1	17.7
Progression Factor		1.00	1.00	0.83	1.35						1.00	1.00
Incremental Delay, d2		1.0	0.4	2.8	0.6						0.7	3.8
Delay (s)		17.8	14.6	30.2	17.0						15.8	21.5
Level of Service		B	B	C	B						B	C
Approach Delay (s)		17.4			17.4			0.0			20.0	
Approach LOS		B			B			A			B	

Intersection Summary				
HCM Average Control Delay	18.5	HCM Level of Service	B	
HCM Volume to Capacity ratio	0.66			
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	93.0%	ICU Level of Service	F	
Analysis Period (min)	15			
c Critical Lane Group				

Near-Term with Project
4: Downing Avenue & I-5 NB Ramps

PM Peak Hour
3/3/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	0.97	1.00			0.95			1.00	1.00			
Frt	1.00	1.00			0.92			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (prot)	3433	1863			3266			1777	1583			
Flt Permitted	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (perm)	3433	1863			3266			1777	1583			
Volume (vph)	800	480	0	0	330	350	280	10	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)	842	505	0	0	347	368	295	11	42	0	0	0
RTOR Reduction (vph)	0	0	0	0	248	0	0	0	32	0	0	0
Lane Group Flow (vph)	842	505	0	0	467	0	0	306	10	0	0	0
Turn Type	Prot						Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	18.8	45.7			22.9			16.3	16.3			
Effective Green, g (s)	18.8	45.7			22.9			16.3	16.3			
Actuated g/C Ratio	0.27	0.65			0.33			0.23	0.23			
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)	922	1216			1068			414	369			
v/s Ratio Prot	c0.25	c0.27			0.14							
v/s Ratio Perm								0.17	0.01			
v/c Ratio	0.91	0.42			0.44			0.74	0.03			
Uniform Delay, d1	24.8	5.8			18.5			24.9	20.7			
Progression Factor	1.21	0.72			1.00			1.00	1.00			
Incremental Delay, d2	12.2	1.0			1.3			6.8	0.0			
Delay (s)	42.1	5.1			19.8			31.7	20.8			
Level of Service	D	A			B			C	C			
Approach Delay (s)		28.2			19.8			30.3			0.0	
Approach LOS		C			B			C			A	

Intersection Summary				
HCM Average Control Delay	26.0	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.64			
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0	
Intersection Capacity Utilization	93.0%	ICU Level of Service	F	
Analysis Period (min)	15			
c Critical Lane Group				

Weston Ranch Towne Center EIR
Near-Term With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 William Moss Boulevard/McDougald Boulevard

Cycle (sec): 60 Critical Vol./Cap. (X): 0.439
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 21.4
Optimal Cycle: 50 Level Of Service: C

Street Name:	McDougald Boulevard						William Moss Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module: 445-545												
Base Vol:	10	140	110	90	40	70	80	150	20	30	100	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	140	110	90	40	70	80	150	20	30	100	10
Added Vol:	17	0	0	17	0	0	0	0	17	0	0	17
PasserByVol:	0	-50	60	0	0	0	0	0	0	130	0	50
Initial Fut:	27	90	170	107	40	70	80	150	37	160	100	77
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	28	95	179	113	42	74	84	158	39	168	105	81
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	95	179	113	42	74	84	158	39	168	105	81
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	28	95	179	113	42	74	84	158	39	168	105	81
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.86	0.86	0.95	0.86	0.86	0.95	0.92	0.92	0.95	0.89	0.89
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.60	0.40	1.00	1.13	0.87
Final Sat.:	1805	1628	1628	1805	1634	1634	1805	2809	693	1805	1907	1468
Capacity Analysis Module:												
Vol/Sat:	0.02	0.06	0.11	0.06	0.03	0.05	0.05	0.06	0.06	0.09	0.06	0.06
Crit Moves:			****	****				****		****		
Green/Cycle:	0.15	0.23	0.23	0.13	0.22	0.22	0.15	0.17	0.17	0.20	0.22	0.22
Volume/Cap:	0.10	0.25	0.47	0.47	0.12	0.21	0.31	0.34	0.34	0.47	0.26	0.26
Delay/Veh:	22.1	18.8	20.3	25.5	19.0	19.5	23.4	22.4	22.4	22.2	19.7	19.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.1	18.8	20.3	25.5	19.0	19.5	23.4	22.4	22.4	22.2	19.7	19.7
HCM2kAvg:	1	2	3	3	1	1	2	2	2	3	2	2

Weston Ranch Towne Center EIR
Near-Term With Project
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 William Moss Boulevard/S. Manthey Road

Cycle (sec): 60 Critical Vol./Cap. (X): 0.482
Loss Time (sec): 12 (Y+R = 5 sec) Average Delay (sec/veh): 14.4
Optimal Cycle: 39 Level Of Service: B

Street Name:							William Moss Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0 1	0 0		0 0 0	1 0		1 0 0	0 1		0 0 0	0 0	
Volume Module: 5-6												
Base Vol:	80	120	0	0	180	80	150	0	50	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	80	120	0	0	180	80	150	0	50	0	0	0
Added Vol:	17	217	0	0	218	0	0	0	17	0	0	0
PasserByVol:	0	0	0	0	-180	180	60	0	0	0	0	0
Initial Fut:	97	337	0	0	218	260	210	0	67	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	102	355	0	0	229	274	221	0	71	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	102	355	0	0	229	274	221	0	71	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	102	355	0	0	229	274	221	0	71	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.93	0.93	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.46	0.54	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	803	958	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.19	0.00	0.00	0.29	0.29	0.12	0.00	0.04	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.12	0.60	0.00	0.00	0.48	0.48	0.21	0.00	0.21	0.00	0.00	0.00
Volume/Cap:	0.48	0.31	0.00	0.00	0.60	0.60	0.60	0.00	0.21	0.00	0.00	0.00
Delay/Veh:	26.6	6.2	0.0	0.0	12.6	12.6	24.3	0.0	20.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.6	6.2	0.0	0.0	12.6	12.6	24.3	0.0	20.2	0.0	0.0	0.0
HCM2kAvg:	3	2	0	0	6	6	5	0	1	0	0	0

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8 Henry Long Boulevard/McDougald Boulevard

Cycle (sec): 100 Critical Vol./Cap. (X): 0.801
Loss Time (sec): 0 (Y+R = 5 sec) Average Delay (sec/veh): 19.4
Optimal Cycle: 0 Level Of Service: C

Street Name:	McDougald Boulevard						Henry Long Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	1! 0	0	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	50	130	60	50	40	10	150	120	40	130	190	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	130	60	50	40	10	150	120	40	130	190	60
Added Vol:	0	17	0	0	17	0	0	0	0	0	0	0
PasserByVol:	190	70	-60	-50	180	0	0	-120	120	-130	-190	-60
Initial Fut:	240	217	0	0	237	10	150	0	160	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	253	228	0	0	249	11	158	0	168	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	253	228	0	0	249	11	158	0	168	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	253	228	0	0	249	11	158	0	168	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.53	0.47	0.00	1.00	0.96	0.04	1.00	0.00	1.00	0.00	1.00	0.00
Final Sat.:	316	285	0	0	554	23	490	0	586	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.80	0.80	xxxx	xxxx	0.45	0.45	0.32	xxxx	0.29	xxxx	xxxx	xxxx
Crit Moves:		****			****		****					
Delay/Veh:	27.8	27.8	0.0	0.0	13.3	13.3	12.8	0.0	10.7	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.8	27.8	0.0	0.0	13.3	13.3	12.8	0.0	10.7	0.0	0.0	0.0
LOS by Move:	D	D	*	*	B	B	B	*	B	*	*	*
ApproachDel:	27.8			13.3			11.7			xxxxxx		
Delay Adj:	1.00			1.00			1.00			xxxxx		
ApprAdjDel:	27.8			13.3			11.7			xxxxxx		
LOS by Appr:	D			B			B			*		

Weston Ranch Towne Center EIR
Near-Term With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #9 Henry Long Boulevard/Manthey Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.548
Loss Time (sec): 0 (Y+R = 5 sec) Average Delay (sec/veh): 11.6
Optimal Cycle: 0 Level Of Service: B

Street Name:	Manthey Road						Henry Long Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 1	0 0	0	0 0	0 1	0	0 0	1! 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	200	150	0	0	50	180	50	0	180	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	200	150	0	0	50	180	50	0	180	0	0	0
Added Vol:	0	0	0	0	0	235	234	0	0	0	0	0
PasserByVol:	-200	-150	0	0	-50	-130	100	0	-180	0	0	0
Initial Fut:	0	0	0	0	0	285	384	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	0	0	300	404	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	300	404	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	0	0	300	404	0	0	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	0	0	0	0	0	796	738	0	0	0	0	0
Capacity Analysis Module:												
Vol/Sat:	xxxx	xxxx	xxxx	xxxx	xxxx	0.38	0.55	xxxx	xxxx	xxxx	xxxx	xxxx
Crit Moves:						****	****					
Delay/Veh:	0.0	0.0	0.0	0.0	0.0	9.6	13.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.0	0.0	9.6	13.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	*	*	*	*	*	A	B	*	*	*	*	*
ApproachDel:	xxxxxx			9.6			13.0			xxxxxx		
Delay Adj:	xxxxx			1.00			1.00			xxxxx		
ApprAdjDel:	xxxxxx			9.6			13.0			xxxxxx		
LOS by Appr:	*			A			B			*		

Weston Ranch Towne Center EIR
Near-Term With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Wolfe Road / French Camp Road

Cycle (sec): 60 Critical Vol./Cap. (X): 0.594
Loss Time (sec): 16 (Y+R = 5 sec) Average Delay (sec/veh): 42.7
Optimal Cycle: 53 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	1! 0	0	1 0	1 0	1	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	30	210	80	60	20	10	10	110	10	10	220	140
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	210	80	60	20	10	10	110	10	10	220	140
Added Vol:	0	0	4	9	0	0	0	26	0	4	26	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	210	84	69	20	10	10	136	10	14	246	149
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	32	221	88	73	21	11	11	143	11	15	259	157
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	221	88	73	21	11	11	143	11	15	259	157
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	32	221	88	73	21	11	11	143	11	15	259	157
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.96	0.96	0.96	0.95	1.00	0.85	0.95	0.99	0.99	0.95	0.94	0.94
Lanes:	0.09	0.65	0.26	1.00	1.00	1.00	1.00	0.93	0.07	1.00	0.62	0.38
Final Sat.:	169	1182	473	1805	1900	1615	1805	1752	129	1805	1116	676
Capacity Analysis Module:												
Vol/Sat:	0.19	0.19	0.19	0.04	0.01	0.01	0.01	0.08	0.08	0.01	0.23	0.23
Crit Moves:	****				****		****				****	
Green/Cycle:	0.20	0.20	0.20	0.17	0.17	0.17	0.12	0.22	0.22	0.15	0.25	0.25
Volume/Cap:	0.93	0.93	0.93	0.24	0.07	0.04	0.05	0.38	0.38	0.05	0.93	0.93
Delay/Veh:	53.6	53.6	53.6	22.1	21.2	21.0	23.6	20.7	20.7	21.9	48.3	48.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.6	53.6	53.6	22.1	21.2	21.0	23.6	20.7	20.7	21.9	48.3	48.3
HCM2kAvg:	11	11	11	1	0	0	0	3	3	0	12	12

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #11 French Camp Road/McDougald Boulevard

Average Delay (sec/veh): 42.9 Worst Case Level Of Service: F[163.4]

Street Name:	McDougald Boulevard						French Camp Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 0	0	1 0	0 0	1	0 1	0 0	0	0 0	0 1	0
Volume Module: >> Count Date: 21 May 2003 << 5-6												
Base Vol:	0	0	0	90	0	120	90	240	0	0	360	150
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	90	0	120	90	240	0	0	360	150
Added Vol:	0	0	0	17	0	0	0	39	0	0	39	17
PasserByVol:	0	0	0	170	0	0	0	0	0	0	0	200
Initial Fut:	0	0	0	277	0	120	90	279	0	0	399	367
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	292	0	126	95	294	0	0	420	386
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	292	0	126	95	294	0	0	420	386
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1096	xxxx	613	806	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	238	xxxx	496	827	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	216	xxxx	496	827	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	1.35	xxxx	0.25	0.11	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	16.2	xxxx	1.0	0.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	227.9	xxxx	14.7	9.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	F	*	B	A	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			163.4			xxxxxx			xxxxxx		
ApproachLOS:	*			F			*			*		

Weston Ranch Towne Center EIR
Near-Term With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #12 Manthey Road/French Camp Road

Cycle (sec): 100 Critical Vol./Cap. (X): 2.007
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 439.5
Optimal Cycle: 0 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	30	90	280	170	50	10	10	310	10	90	470	250
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	90	280	170	50	10	10	310	10	90	470	250
Added Vol:	60	0	0	0	0	0	0	1195	60	0	1201	0
PasserByVol:	90	-90	0	-170	-50	-10	-10	170	50	0	250	-250
Initial Fut:	180	0	280	0	0	0	0	1675	120	90	1921	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	189	0	295	0	0	0	0	1763	126	95	2022	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	189	0	295	0	0	0	0	1763	126	95	2022	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	189	0	295	0	0	0	0	1763	126	95	2022	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.39	0.00	0.61	0.00	1.00	0.00	0.00	1.87	0.13	1.00	2.00	0.00
Final Sat.:	215	0	334	0	0	0	0	878	63	452	1492	0
Capacity Analysis Module:												
Vol/Sat:	0.88	xxxx	0.88	xxxx	xxxx	xxxx	xxxx	2.01	1.99	0.21	1.36	xxxx
Crit Moves:			****					****			****	
Delay/Veh:	40.6	0.0	40.6	0.0	0.0	0.0	0.0	478	472.4	12.8	519	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.6	0.0	40.6	0.0	0.0	0.0	0.0	478	472.4	12.8	519	0.0
LOS by Move:	E	*	E	*	*	*	*	F	F	B	F	*
ApproachDel:	40.6			xxxxxx			478.0			496.3		
Delay Adj:	1.00			xxxxx			1.00			1.00		
ApprAdjDel:	40.6			xxxxxx			478.0			496.3		
LOS by Appr:	E			*			F			F		

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #13 French Camp Road/I-5 SB Ramps

Average Delay (sec/veh): 324.5 Worst Case Level Of Service: F[1361.2]

Street Name:	I-5 SB Ramps						French Camp Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 0	0	1 1	0 0	1	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	380	0	230	0	590	170	90	580	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	380	0	230	0	590	170	90	580	0
Added Vol:	0	0	0	0	0	446	0	590	605	0	755	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	380	0	676	0	1180	775	90	1335	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	400	0	712	0	1242	816	95	1405	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	400	0	712	0	1242	816	95	1405	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	2216	xxxx	703	xxxx	xxxx	xxxxx	2058	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	38	xxxx	385	xxxx	xxxx	xxxxx	276	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	28	xxxx	385	xxxx	xxxx	xxxxx	276	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	14.30	xxxx	1.85	xxxx	xxxx	xxxx	0.34	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	24.6	xxxx	46.6	xxxxx	xxxx	xxxxx	1.5	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	3043	xxxx	415.8	xxxxx	xxxx	xxxxx	24.7	xxxx	xxxxx
LOS by Move:	*	*	*	F	*	F	*	*	*	C	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	28	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	24.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	3043	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	F	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			1361.2			xxxxxx			xxxxxx		
ApproachLOS:	*			F			*			*		

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #14 French Camp Road/I-5 NB Ramps

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	I-5 NB Ramps						French Camp Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 1	0 0	1	0 0	0 0	0	1 0	2 0	0	0 0	1 1	0
Volume Module:												
Base Vol:	320	0	120	0	0	0	430	540	0	0	350	380
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	320	0	120	0	0	0	430	540	0	0	350	380
Added Vol:	608	0	0	0	0	0	444	146	0	0	147	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	928	0	120	0	0	0	874	686	0	0	497	380
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	977	0	126	0	0	0	920	722	0	0	523	400
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	977	0	126	0	0	0	920	722	0	0	523	400
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	2824	xxxx	361	xxxx	xxxx	xxxxx	923	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	15	xxxx	641	xxxx	xxxx	xxxxx	748	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	0	xxxx	641	xxxx	xxxx	xxxxx	748	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.20	xxxx	xxxx	xxxx	1.23	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	0.7	xxxxx	xxxx	xxxxx	32.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	12.0	xxxxx	xxxx	xxxxx	134.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	B	*	*	*	F	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			*			*			*		

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #15 French Camp Road/Val Dervin Parkway

Average Delay (sec/veh): 50.2 Worst Case Level Of Service: F[456.5]

Street Name:	Val Dervin Parkway						French Camp Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	70	10	10	60	10	210	90	490	80	90	450	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	10	10	60	10	210	90	490	80	90	450	0
Added Vol:	0	0	0	0	0	0	0	146	0	0	147	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	70	10	10	60	10	210	90	636	80	90	597	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	74	11	11	63	11	221	95	669	84	95	628	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	74	11	11	63	11	221	95	669	84	95	628	0
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1410	1719	377	1347	1761	314	628	xxxx	xxxxx	754	xxxx	xxxxx
Potent Cap.:	100	91	627	111	85	688	963	xxxx	xxxxx	866	xxxx	xxxxx
Move Cap.:	51	72	627	82	68	688	963	xxxx	xxxxx	866	xxxx	xxxxx
Volume/Cap:	1.45	0.15	0.02	0.77	0.15	0.32	0.10	xxxx	xxxx	0.11	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	0.4	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.1	xxxx	xxxxx	9.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	59	xxxxx	xxxx	237	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	8.6	xxxxx	xxxxx	14.7	xxxxx	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx
Shrd StpDel:	xxxxx	456	xxxxx	xxxxx	182	xxxxx	xxxxx	xxxx	xxxxx	9.7	xxxx	xxxxx
Shared LOS:	*	F	*	*	F	*	*	*	*	A	*	*
ApproachDel:	456.5			181.5			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #16 Yettner Road/ S. Manthey Road

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[11.9]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0	1	0	0 0	0	0	0	1 0	0	0	1!	0 0	0	0	0	0 0
Volume Module:																
Base Vol:	10	390		0	0	140	10		10	0	10		0	0	0	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	390		0	0	140	10		10	0	10		0	0	0	
Added Vol:	0	60		0	0	60	0		0	0	0		0	0	0	
PasserByVol:	0	0		0	0	0	0		0	0	0		0	0	0	
Initial Fut:	10	450		0	0	200	10		10	0	10		0	0	0	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	11	474		0	0	211	11		11	0	11		0	0	0	
Reduct Vol:	0	0		0	0	0	0		0	0	0		0	0	0	
Final Vol.:	11	474		0	0	211	11		11	0	11		0	0	0	
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx				
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx				
Capacity Module:																
Cnflict Vol:	221	xxxx	xxxxx	xxxx	xxxx	xxxxx	711	xxxx	216	xxxx	xxxx	xxxxx				
Potent Cap.:	1360	xxxx	xxxxx	xxxx	xxxx	xxxxx	403	xxxx	829	xxxx	xxxx	xxxxx				
Move Cap.:	1360	xxxx	xxxxx	xxxx	xxxx	xxxxx	400	xxxx	829	xxxx	xxxx	xxxxx				
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	0.01	xxxx	xxxx	xxxx				
Level Of Service Module:																
Queue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Stopped Del:	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*				
Movement:	LT - LTR - RT				LT - LTR - RT				LT - LTR - RT				LT - LTR - RT			
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	540	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx				
Shrd StpDel:	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	11.9	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	A	*	*	*	*	*	*	B	*	*	*	*				
ApproachDel:	xxxxxx			xxxxxx				11.9		xxxxxx						
ApproachLOS:	*			*				B		*						

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #17 Mathews Road/South Manthey Road

Cycle (sec): 100 Critical Vol./Cap. (X): 1.076
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 44.8
Optimal Cycle: 0 Level Of Service: E

Street Name:	South Manthey Road								Mathews Road							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0	0	1!	0 0	0	0	1!	0 0	1	0	0	1 0	1	0	1	0 1
Volume Module: 430-530																
Base Vol:	10	40	30		80	30	20		30	590	10		30	310	50	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	10	40	30		80	30	20		30	590	10		30	310	50	
Added Vol:	0	9	0		47	9	4		4	0	0		0	0	47	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	10	49	30		127	39	24		34	590	10		30	310	97	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	11	52	32		134	41	25		36	621	11		32	326	102	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	11	52	32		134	41	25		36	621	11		32	326	102	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	11	52	32		134	41	25		36	621	11		32	326	102	
Saturation Flow Module:																
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.11	0.55	0.34		0.67	0.20	0.13		1.00	0.98	0.02		1.00	1.00	1.00	
Final Sat.:	54	265	162		338	104	64		536	577	10		515	556	623	
Capacity Analysis Module:																
Vol/Sat:	0.19	0.19	0.19		0.40	0.40	0.40		0.07	1.08	1.08		0.06	0.59	0.16	
Crit Moves:		****				****					****			****		
Delay/Veh:	11.6	11.6	11.6		14.1	14.1	14.1		9.8	83.0	83.0		10.0	17.5	9.5	
Delay Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	11.6	11.6	11.6		14.1	14.1	14.1		9.8	83.0	83.0		10.0	17.5	9.5	
LOS by Move:	B	B	B		B	B	B		A	F	F		B	C	A	
ApproachDel:	11.6				14.1				79.1				15.2			
Delay Adj:	1.00				1.00				1.00				1.00			
ApprAdjDel:	11.6				14.1				79.1				15.2			
LOS by Appr:	B				B				F				C			

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #18 Mathews Road/I-5 SB Ramps

Average Delay (sec/veh): 5.3 Worst Case Level Of Service: C[23.8]

Street Name:	I-5 SB Ramps									Mathews Road							
Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	1	0	1	0	0
Volume Module: 445-545																				
Base Vol:	0	0	0			120	0		160		0	600		100		50	230		0	
Growth Adj:	1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	0	0	0			120	0		160		0	600		100		50	230		0	
Added Vol:	0	0	0			0	0		0		0	9		39		0	47		0	
PasserByVol:	0	0	0			0	0		0		0	0		0		0	0		0	
Initial Fut:	0	0	0			120	0		160		0	609		139		50	277		0	
User Adj:	1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	0.95	0.95	0.95			0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95	
PHF Volume:	0	0	0			126	0		168		0	641		146		53	292		0	
Reduct Vol:	0	0	0			0	0		0		0	0		0		0	0		0	
Final Vol.:	0	0	0			126	0		168		0	641		146		53	292		0	
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			6.4	xxxx		6.2		xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx	
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	xxxx		3.3		xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx	
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			1111	xxxx		292		xxxx	xxxx		xxxxx		787	xxxx		xxxxx	
Potent Cap.:	xxxx	xxxx	xxxxx			233	xxxx		752		xxxx	xxxx		xxxxx		841	xxxx		xxxxx	
Move Cap.:	xxxx	xxxx	xxxxx			222	xxxx		752		xxxx	xxxx		xxxxx		841	xxxx		xxxxx	
Volume/Cap:	xxxx	xxxx	xxxx			0.57	xxxx		0.22		xxxx	xxxx		xxxx		0.06	xxxx		xxxx	
Level Of Service Module:																				
Queue:	xxxxx	xxxx	xxxxx			3.1	xxxx		xxxxx		xxxxx	xxxx		xxxxx		0.2	xxxx		xxxxx	
Stopped Del:	xxxxx	xxxx	xxxxx			40.6	xxxx		xxxxx		xxxxx	xxxx		xxxxx		9.6	xxxx		xxxxx	
LOS by Move:	*	*	*			E	*		*		*	*		*		A	*		*	
Movement:	LT -	LTR -	RT			LT -	LTR -		RT		LT -	LTR -		RT		LT -	LTR -		RT	
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx		752		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx		0.9		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shrd StpDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx		11.2		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shared LOS:	*	*	*			*	*		B		*	*		*		*	*		*	
ApproachDel:	xxxxxx					23.8					xxxxxx					xxxxxx				
ApproachLOS:	*					C					*					*				

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #19 Mathews Road/I-5 NB Ramps

Average Delay (sec/veh): 124.9 Worst Case Level Of Service: F[530.4]

Street Name:	I-5 NB Ramps									Mathews Road							
Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0
Volume Module: 415-515																				
Base Vol:	130		0	280		0		0		0	470	250		0		0	150		630	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	130		0	280		0		0		0	470	250		0		0	150		630	
Added Vol:	39		0	0		0		0		0	0	9		0		0	9		0	
PasserByVol:	0		0	0		0		0		0	0	0		0		0	0		0	
Initial Fut:	169		0	280		0		0		0	470	259		0		0	159		630	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
PHF Volume:	178		0	295		0		0		0	495	273		0		0	167		663	
Reduct Vol:	0		0	0		0		0		0	0	0		0		0	0		0	
Final Vol.:	178		0	295		0		0		0	495	273		0		0	167		663	
Critical Gap Module:																				
Critical Gp:	6.4	xxxx		6.2	xxxxx	xxxx		xxxxx		4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
FollowUpTim:	3.5	xxxx		3.3	xxxxx	xxxx		xxxxx		2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
Capacity Module:																				
Cnflict Vol:	1761	xxxx		273	xxxx	xxxx		xxxxx		831	xxxx	xxxxx	xxxx	xxxx	xxxxx					
Potent Cap.:	94	xxxx		771	xxxx	xxxx		xxxxx		810	xxxx	xxxxx	xxxx	xxxx	xxxxx					
Move Cap.:	48	xxxx		771	xxxx	xxxx		xxxxx		810	xxxx	xxxxx	xxxx	xxxx	xxxxx					
Volume/Cap:	3.70	xxxx		0.38	xxxx	xxxx		xxxx		0.61	xxxx	xxxx	xxxx	xxxx	xxxx					
Level Of Service Module:																				
Queue:	19.6	xxxx		xxxxx	xxxxx	xxxx		xxxxx		4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
Stopped Del:	1388	xxxx		xxxxx	xxxxx	xxxx		xxxxx		16.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
LOS by Move:	F	*		*	*	*		*		C	*	*	*	*	*					
Movement:	LT -	LTR -	RT		LT -	LTR -		RT		LT -	LTR -		RT		LT -	LTR -		RT		
Shared Cap.:	xxxx	xxxx		771	xxxx	xxxx		xxxxx		xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx					
SharedQueue:	xxxxx	xxxx		1.8	xxxxx	xxxx		xxxxx		xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
Shrd StpDel:	xxxxx	xxxx		12.5	xxxxx	xxxx		xxxxx		xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
Shared LOS:	*	*		B	*	*		*		*	*	*	*	*	*					
ApproachDel:	530.4				xxxxxx					xxxxxx					xxxxxx					
ApproachLOS:	F				*					*					*					

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #20 Howard Road/ Wolfe Road

Average Delay (sec/veh): 11.4 Worst Case Level Of Service: E[40.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	10	150	20	20	10	10	150	340	10	10	100	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	150	20	20	10	10	150	340	10	10	100	20
Added Vol:	0	0	0	0	0	4	4	4	0	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	150	20	20	10	14	154	344	10	10	104	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	11	158	21	21	11	15	162	362	11	11	109	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	11	158	21	21	11	15	162	362	11	11	109	21
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	845	843	367	922	838	120	131	xxxx	xxxxx	373	xxxx	xxxxx
Potent Cap.:	285	303	682	253	305	937	1467	xxxx	xxxxx	1197	xxxx	xxxxx
Move Cap.:	245	263	682	117	265	937	1467	xxxx	xxxxx	1197	xxxx	xxxxx
Volume/Cap:	0.04	0.60	0.03	0.18	0.04	0.02	0.11	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	0.0	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	8.0	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	281	xxxxx	xxxx	197	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	4.5	xxxxx	xxxxx	0.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	40.6	xxxxx	xxxxx	28.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	E	*	*	D	*	*	*	*	*	*	*
ApproachDel:		40.6			28.9			xxxxxx			xxxxxx	
ApproachLOS:		E			D			*			*	

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 French Camp Road/Seconday Project Driveway

Cycle (sec): 60 Critical Vol./Cap. (X): 0.555
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 12.5
Optimal Cycle: 46 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	0 0	0	1 0	0 0	1	1 0	1 0	0	0 0	1 0	1
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	330	0	0	510	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	330	0	0	510	0
Added Vol:	0	0	0	72	0	36	36	20	0	0	20	72
PasserByVol:	0	0	0	14	0	29	14	156	0	0	171	29
Initial Fut:	0	0	0	86	0	65	50	506	0	0	701	101
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	86	0	65	50	506	0	0	701	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	86	0	65	50	506	0	0	701	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	86	0	65	50	506	0	0	701	101
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00	1.00	1.00	0.85
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Final Sat.:	0	0	0	1805	0	1615	1805	1900	0	0	1900	1615
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.04	0.03	0.27	0.00	0.00	0.37	0.06
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.12	0.00	0.17	0.12	0.48	0.00	0.00	0.57	0.57
Volume/Cap:	0.00	0.00	0.00	0.41	0.00	0.24	0.24	0.56	0.00	0.00	0.65	0.11
Delay/Veh:	0.0	0.0	0.0	25.9	0.0	22.2	24.7	12.1	0.0	0.0	10.4	6.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	25.9	0.0	22.2	24.7	12.1	0.0	0.0	10.4	6.1
HCM2kAvg:	0	0	0	2	0	1	1	7	0	0	10	1

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #22 French Camp Road/Realigned Manthey Road

Cycle (sec): 90 Critical Vol./Cap. (X): 1.002
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 37.4
Optimal Cycle: 130 Level Of Service: D

Street Name:	S. Manthey Road							French Camp Road							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Protected					Protected					Protected				
Rights:	Include					Include					Include					Ovl				
Min. Green:	7	10	10			7	10	10			7	10	10			7	10	10		
Lanes:	0	0	0	0	0	2	0	1	0	1	1	0	2	0	0	0	0	1	1	1
Volume Module:																				
Base Vol:	0	0	0			0	0	0			0	330	0			0	510	0		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	0	0	0			0	0	0			0	330	0			0	510	0		
Added Vol:	0	0	0			1184	0	20			20	72	0			0	72	1190		
PasserByVol:	0	0	0			87	0	92			47	123	0			0	108	232		
Initial Fut:	0	0	0			1271	0	112			67	525	0			0	690	1422		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95		
PHF Volume:	0	0	0			1338	0	118			71	553	0			0	726	1497		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Reduced Vol:	0	0	0			1338	0	118			71	553	0			0	726	1497		
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Final Vol.:	0	0	0			1338	0	118			71	553	0			0	726	1497		
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900			1900	1900	1900			1900	1900	1900			1900	1900	1900		
Adjustment:	1.00	1.00	1.00			0.92	1.00	0.85			0.95	0.95	1.00			1.00	0.85	0.85		
Lanes:	0.00	0.00	0.00			2.00	1.00	1.00			1.00	2.00	0.00			0.00	1.00	2.00		
Final Sat.:	0	0	0			3502	1900	1615			1805	3610	0			0	1623	3245		
Capacity Analysis Module:																				
Vol/Sat:	0.00	0.00	0.00			0.38	0.00	0.07			0.04	0.15	0.00			0.00	0.45	0.46		
Crit Moves:						****					****						****			
Green/Cycle:	0.00	0.00	0.00			0.36	0.00	0.28			0.08	0.33	0.00			0.00	0.43	0.79		
Volume/Cap:	0.00	0.00	0.00			1.05	0.00	0.26			0.50	0.46	0.00			0.00	1.05	0.58		
Delay/Veh:	0.0	0.0	0.0			68.7	0.0	25.5			42.7	23.9	0.0			0.0	60.7	4.0		
User DelAdj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
AdjDel/Veh:	0.0	0.0	0.0			68.7	0.0	25.5			42.7	23.9	0.0			0.0	60.7	4.0		
HCM2kAvg:	0	0	0			29	0	3			3	6	0			0	30	9		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	0.99		1.00	1.00	0.91	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	3504		1770	3539	1664	
Flt Permitted	1.00		0.95	1.00	0.98	
Satd. Flow (perm)	3504		1770	3539	1664	
Volume (vph)	1082	76	250	800	72	160
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1139	80	263	842	76	168
RTOR Reduction (vph)	5	0	0	0	109	0
Lane Group Flow (vph)	1214	0	263	842	135	0
Turn Type			Prot			
Protected Phases	4		3	8	2	
Permitted Phases						
Actuated Green, G (s)	43.0		15.2	62.2	9.8	
Effective Green, g (s)	43.0		15.2	62.2	9.8	
Actuated g/C Ratio	0.54		0.19	0.78	0.12	
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)	1883		336	2752	204	
v/s Ratio Prot	c0.35		c0.15	0.24	c0.08	
v/s Ratio Perm						
v/c Ratio	0.64		0.78	0.31	0.66	
Uniform Delay, d1	13.1		30.8	2.6	33.5	
Progression Factor	0.54		1.08	1.08	0.95	
Incremental Delay, d2	1.6		10.3	0.3	7.6	
Delay (s)	8.8		43.7	3.1	39.3	
Level of Service	A		D	A	D	
Approach Delay (s)	8.8			12.7	39.3	
Approach LOS	A			B	D	

Intersection Summary			
HCM Average Control Delay	13.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	70.0%	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)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	0.95					0.95	0.95	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		3539	1583	1770	3539					1681	1681	1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		3539	1583	1770	3539					1681	1681	1583
Volume (vph)	0	631	611	90	576	0	0	0	0	480	0	474
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	664	643	95	606	0	0	0	0	505	0	499
RTOR Reduction (vph)	0	0	323	0	0	0	0	0	0	0	0	179
Lane Group Flow (vph)	0	664	320	95	606	0	0	0	0	253	252	320
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		39.8	39.8	7.4	51.2					20.8	20.8	20.8
Effective Green, g (s)		39.8	39.8	7.4	51.2					20.8	20.8	20.8
Actuated g/C Ratio		0.50	0.50	0.09	0.64					0.26	0.26	0.26
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)		1761	788	164	2265					437	437	412
v/s Ratio Prot		0.19		c0.05	0.17							
v/s Ratio Perm			c0.20							0.15	0.15	c0.20
v/c Ratio		0.38	0.41	0.58	0.27					0.58	0.58	0.78
Uniform Delay, d1		12.4	12.7	34.8	6.3					25.8	25.8	27.4
Progression Factor		0.32	1.40	1.14	0.59					1.00	1.00	1.00
Incremental Delay, d2		0.5	1.2	4.7	0.3					1.9	1.8	8.9
Delay (s)		4.5	19.0	44.6	4.0					27.6	27.6	36.3
Level of Service		A	B	D	A					C	C	D
Approach Delay (s)		11.6			9.5			0.0			32.0	
Approach LOS		B			A			A			C	

Intersection Summary			
HCM Average Control Delay	17.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
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)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.95			0.95	1.00	0.95	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	3433	3539			3539	1583	1681	1681	1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	3433	3539			3539	1583	1681	1681	1583			
Volume (vph)	405	706	0	0	296	270	370	0	120	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)	426	743	0	0	312	284	389	0	126	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	147	0	0	103	0	0	0
Lane Group Flow (vph)	426	743	0	0	312	137	195	194	23	0	0	0
Turn Type	Prot					Perm	Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases						8	2		2			
Actuated Green, G (s)	14.8	57.5			38.7	38.7	14.5	14.5	14.5			
Effective Green, g (s)	14.8	57.5			38.7	38.7	14.5	14.5	14.5			
Actuated g/C Ratio	0.19	0.72			0.48	0.48	0.18	0.18	0.18			
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)	635	2544			1712	766	305	305	287			
v/s Ratio Prot	c0.12	c0.21			0.09							
v/s Ratio Perm						0.09	c0.12	0.12	0.01			
v/c Ratio	0.67	0.29			0.18	0.18	0.64	0.64	0.08			
Uniform Delay, d1	30.3	4.0			11.7	11.7	30.3	30.3	27.2			
Progression Factor	1.02	0.49			0.30	0.23	1.00	1.00	1.00			
Incremental Delay, d2	2.6	0.3			0.2	0.5	4.4	4.3	0.1			
Delay (s)	33.6	2.2			3.8	3.1	34.7	34.6	27.3			
Level of Service	C	A			A	A	C	C	C			
Approach Delay (s)		13.7			3.5			32.9			0.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM Average Control Delay	15.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
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)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	1.00		1.00	0.96		1.00	0.89	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3438		1770	3539		1770	1791		1770	1653	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3438		1770	3539		1770	1791		1770	1653	
Volume (vph)	250	466	110	330	456	0	50	30	10	30	20	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)	263	491	116	347	480	0	53	32	11	32	21	63
RTOR Reduction (vph)	0	18	0	0	0	0	0	10	0	0	58	0
Lane Group Flow (vph)	263	589	0	347	480	0	53	33	0	32	26	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	17.0	35.5		16.4	34.9		6.1	8.0		4.1	6.0	
Effective Green, g (s)	17.0	35.5		16.4	34.9		6.1	8.0		4.1	6.0	
Actuated g/C Ratio	0.21	0.44		0.20	0.44		0.08	0.10		0.05	0.08	
Clearance Time (s)	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	
Lane Grp Cap (vph)	376	1526		363	1544		135	179		91	124	
v/s Ratio Prot	0.15	c0.17		c0.20	0.14		c0.03	c0.02		0.02	0.02	
v/s Ratio Perm												
v/c Ratio	0.70	0.39		0.96	0.31		0.39	0.18		0.35	0.21	
Uniform Delay, d1	29.1	14.9		31.4	14.7		35.2	33.0		36.7	34.8	
Progression Factor	1.16	0.54		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.5	0.7		35.5	0.5		1.9	0.5		2.3	0.8	
Delay (s)	39.4	8.8		66.9	15.2		37.1	33.5		39.0	35.6	
Level of Service	D	A		E	B		D	C		D	D	
Approach Delay (s)		18.0			36.9			35.5			36.5	
Approach LOS		B			D			D			D	

Intersection Summary			
HCM Average Control Delay	28.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	54.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	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	1863	1863	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1863	1863	1583	1770	1583
Volume (vph)	24	668	412	28	30	12
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	25	703	434	29	32	13
RTOR Reduction (vph)	0	0	0	7	0	12
Lane Group Flow (vph)	25	703	434	22	32	1
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	4.0	67.4	59.4	59.4	4.6	4.6
Effective Green, g (s)	4.0	67.4	59.4	59.4	4.6	4.6
Actuated g/C Ratio	0.05	0.84	0.74	0.74	0.06	0.06
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)	89	1570	1383	1175	102	91
v/s Ratio Prot	0.01	c0.38	0.23		c0.02	
v/s Ratio Perm				0.01		0.00
v/c Ratio	0.28	0.45	0.31	0.02	0.31	0.01
Uniform Delay, d1	36.6	1.6	3.5	2.7	36.2	35.5
Progression Factor	1.10	1.54	0.58	0.09	1.00	1.00
Incremental Delay, d2	1.7	0.9	0.6	0.0	1.8	0.0
Delay (s)	41.9	3.3	2.6	0.3	37.9	35.6
Level of Service	D	A	A	A	D	D
Approach Delay (s)		4.7	2.4		37.3	
Approach LOS		A	A		D	

Intersection Summary			
HCM Average Control Delay	5.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.91	0.91	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	3390	1441	3433	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	3390	1441	3433	1583
Volume (vph)	53	645	428	454	513	22
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	56	679	451	478	540	23
RTOR Reduction (vph)	0	0	0	122	0	18
Lane Group Flow (vph)	56	679	451	356	540	5
Turn Type	Prot			pm+ov		Perm
Protected Phases	7	4	8	6	6	
Permitted Phases				8		6
Actuated Green, G (s)	8.4	54.2	41.8	59.6	17.8	17.8
Effective Green, g (s)	8.4	54.2	41.8	59.6	17.8	17.8
Actuated g/C Ratio	0.11	0.68	0.52	0.75	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)	186	2398	1771	1146	764	352
v/s Ratio Prot	0.03	c0.19	0.13	c0.07	c0.16	
v/s Ratio Perm				0.18		0.00
v/c Ratio	0.30	0.28	0.25	0.31	0.71	0.01
Uniform Delay, d1	33.1	5.1	10.5	3.4	28.7	24.3
Progression Factor	0.93	0.71	0.58	1.76	1.00	1.00
Incremental Delay, d2	0.8	0.3	0.3	0.1	3.0	0.0
Delay (s)	31.7	3.9	6.4	6.1	31.7	24.3
Level of Service	C	A	A	A	C	C
Approach Delay (s)		6.0	6.3		31.4	
Approach LOS		A	A		C	

Intersection Summary			
HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	44.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	0.99		1.00	1.00	0.92	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	3504		1770	3539	1677	
Flt Permitted	1.00		0.95	1.00	0.98	
Satd. Flow (perm)	3504		1770	3539	1677	
Volume (vph)	1675	120	90	1921	180	280
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1763	126	95	2022	189	295
RTOR Reduction (vph)	7	0	0	0	70	0
Lane Group Flow (vph)	1882	0	95	2022	414	0
Turn Type			Prot			
Protected Phases	4		3	8	2	
Permitted Phases						
Actuated Green, G (s)	44.0		5.0	53.0	19.0	
Effective Green, g (s)	44.0		5.0	53.0	19.0	
Actuated g/C Ratio	0.55		0.06	0.66	0.24	
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)	1927		111	2345	398	
v/s Ratio Prot	c0.54		0.05	c0.57	c0.25	
v/s Ratio Perm						
v/c Ratio	0.98		0.86	0.86	1.04	
Uniform Delay, d1	17.5		37.1	10.6	30.5	
Progression Factor	0.83		0.81	0.45	1.46	
Incremental Delay, d2	13.3		21.7	1.8	50.2	
Delay (s)	27.7		51.8	6.6	94.8	
Level of Service	C		D	A	F	
Approach Delay (s)	27.7			8.6	94.8	
Approach LOS	C			A	F	

Intersection Summary			
HCM Average Control Delay	26.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	92.3%	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)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	0.95					0.95	0.95	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		3539	1583	1770	3539					1681	1681	1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		3539	1583	1770	3539					1681	1681	1583
Volume (vph)	0	1180	775	90	1335	0	0	0	0	380	0	676
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	1242	816	95	1405	0	0	0	0	400	0	712
RTOR Reduction (vph)	0	0	530	0	0	0	0	0	0	0	0	10
Lane Group Flow (vph)	0	1242	286	95	1405	0	0	0	0	200	200	702
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		28.0	28.0	5.0	37.0					35.0	35.0	35.0
Effective Green, g (s)		28.0	28.0	5.0	37.0					35.0	35.0	35.0
Actuated g/C Ratio		0.35	0.35	0.06	0.46					0.44	0.44	0.44
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)		1239	554	111	1637					735	735	693
v/s Ratio Prot		c0.35		0.05	c0.40							
v/s Ratio Perm			0.18							0.12	0.12	c0.44
v/c Ratio		1.00	0.52	0.86	0.86					0.27	0.27	1.01
Uniform Delay, d1		26.0	20.6	37.1	19.2					14.4	14.4	22.5
Progression Factor		0.53	1.92	1.13	0.25					1.00	1.00	1.00
Incremental Delay, d2		13.5	0.9	29.7	3.7					0.2	0.2	37.6
Delay (s)		27.3	40.4	71.6	8.6					14.6	14.6	60.1
Level of Service		C	D	E	A					B	B	E
Approach Delay (s)		32.5			12.6			0.0			43.7	
Approach LOS		C			B			A			D	

Intersection Summary			
HCM Average Control Delay	28.8	HCM Level of Service	C
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	137.2%	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)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.95			0.95	1.00	0.95	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	3433	3539			3539	1583	1681	1681	1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	3433	3539			3539	1583	1681	1681	1583			
Volume (vph)	874	686	0	0	497	380	928	0	120	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)	920	722	0	0	523	400	977	0	126	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	310	0	0	85	0	0	0
Lane Group Flow (vph)	920	722	0	0	523	91	489	488	41	0	0	0
Turn Type	Prot					Perm	Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases						8	2		2			
Actuated Green, G (s)	23.9	46.0			18.1	18.1	26.0	26.0	26.0			
Effective Green, g (s)	23.9	46.0			18.1	18.1	26.0	26.0	26.0			
Actuated g/C Ratio	0.30	0.58			0.23	0.23	0.32	0.32	0.32			
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)	1026	2035			801	358	546	546	514			
v/s Ratio Prot	c0.27	0.20			c0.15							
v/s Ratio Perm						0.06	c0.29	0.29	0.03			
v/c Ratio	0.90	0.35			0.65	0.25	0.90	0.89	0.08			
Uniform Delay, d1	26.9	9.1			28.1	25.4	25.7	25.7	18.7			
Progression Factor	0.51	0.60			0.71	1.63	1.00	1.00	1.00			
Incremental Delay, d2	6.0	0.3			3.9	1.6	17.1	16.9	0.1			
Delay (s)	19.7	5.7			23.8	43.1	42.8	42.6	18.8			
Level of Service	B	A			C	D	D	D	B			
Approach Delay (s)		13.6			32.1			40.0			0.0	
Approach LOS		B			C			D			A	

Intersection Summary			
HCM Average Control Delay	26.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	137.2%	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)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00		1.00	0.93		1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3480		1770	3522		1770	1723		1770	1597	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3480		1770	3522		1770	1723		1770	1597	
Volume (vph)	90	636	80	90	597	20	70	10	10	60	10	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)	95	669	84	95	628	21	74	11	11	63	11	221
RTOR Reduction (vph)	0	9	0	0	2	0	0	11	0	0	199	0
Lane Group Flow (vph)	95	744	0	95	647	0	74	11	0	63	33	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	8.4	39.5		6.8	37.9		9.9	2.6		15.1	7.8	
Effective Green, g (s)	8.4	39.5		6.8	37.9		9.9	2.6		15.1	7.8	
Actuated g/C Ratio	0.11	0.49		0.08	0.47		0.12	0.03		0.19	0.10	
Clearance Time (s)	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	
Lane Grp Cap (vph)	186	1718		150	1669		219	56		334	156	
v/s Ratio Prot	c0.05	c0.21		0.05	0.18		c0.04	0.01		0.04	c0.02	
v/s Ratio Perm												
v/c Ratio	0.51	0.43		0.63	0.39		0.34	0.20		0.19	0.21	
Uniform Delay, d1	33.9	13.0		35.4	13.6		32.1	37.7		27.3	33.3	
Progression Factor	0.90	0.29		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.3	0.8		8.4	0.7		0.9	1.8		0.3	0.7	
Delay (s)	32.6	4.5		43.8	14.3		33.0	39.5		27.6	33.9	
Level of Service	C	A		D	B		C	D		C	C	
Approach Delay (s)		7.6			18.0			34.5			32.6	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM Average Control Delay	16.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.91	0.91	0.97	1.00
Frt	1.00	1.00	0.97	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	3273	1441	3433	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	3273	1441	3433	1583
Volume (vph)	67	525	690	1422	1271	112
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	71	553	726	1497	1338	118
RTOR Reduction (vph)	0	0	32	32	0	55
Lane Group Flow (vph)	71	553	911	1248	1338	63
Turn Type	Prot			pm+ov		Perm
Protected Phases	7	4	8	6	6	
Permitted Phases				8		6
Actuated Green, G (s)	3.2	29.0	21.8	64.8	43.0	43.0
Effective Green, g (s)	3.2	29.0	21.8	64.8	43.0	43.0
Actuated g/C Ratio	0.04	0.36	0.27	0.81	0.54	0.54
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)	71	1283	892	1239	1845	851
v/s Ratio Prot	c0.04	0.16	0.28	c0.54	0.39	
v/s Ratio Perm				0.32		0.04
v/c Ratio	1.00	0.43	1.02	1.01	0.73	0.07
Uniform Delay, d1	38.4	19.3	29.1	7.6	14.0	8.9
Progression Factor	0.88	0.80	0.71	1.96	1.00	1.00
Incremental Delay, d2	104.6	1.0	26.0	19.1	1.4	0.0
Delay (s)	138.5	16.5	46.7	34.0	15.5	9.0
Level of Service	F	B	D	C	B	A
Approach Delay (s)		30.4	39.4		14.9	
Approach LOS		C	D		B	

Intersection Summary			
HCM Average Control Delay	29.8	HCM Level of Service	C
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	84.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	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	1863	1863	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1863	1863	1583	1770	1583
Volume (vph)	50	506	701	101	86	65
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	53	533	738	106	91	68
RTOR Reduction (vph)	0	0	0	31	0	61
Lane Group Flow (vph)	53	533	738	75	91	7
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	3.6	63.9	56.3	56.3	8.1	8.1
Effective Green, g (s)	3.6	63.9	56.3	56.3	8.1	8.1
Actuated g/C Ratio	0.05	0.80	0.70	0.70	0.10	0.10
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)	80	1488	1311	1114	179	160
v/s Ratio Prot	c0.03	0.29	c0.40		c0.05	
v/s Ratio Perm				0.05		0.00
v/c Ratio	0.66	0.36	0.56	0.07	0.51	0.04
Uniform Delay, d1	37.6	2.3	5.8	3.7	34.1	32.5
Progression Factor	1.05	1.19	0.67	0.00	1.00	1.00
Incremental Delay, d2	18.7	0.7	0.8	0.1	2.3	0.1
Delay (s)	58.1	3.4	4.7	0.1	36.3	32.6
Level of Service	E	A	A	A	D	C
Approach Delay (s)		8.3	4.1		34.7	
Approach LOS		A	A		C	

Intersection Summary			
HCM Average Control Delay	8.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

2025

Weston Ranch Towne Center EIR
Future 2025 Without Project
AM Peak Hour

Scenario Report

Scenario:	Cumulative w/o Proj AM
Command:	Cumulative w/o Proj AM
Volume:	Cumulative AM
Geometry:	Cumulative
Impact Fee:	Default Impact Fee
Trip Generation:	No Project
Trip Distribution:	Peak Hour
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Weston Ranch Towne Center EIR
Future 2025 Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Carolyn Weston/McDougald

Cycle (sec):	60	Critical Vol./Cap. (X):	0.691
Loss Time (sec):	16 (Y+R = 4 sec)	Average Delay (sec/veh):	27.8
Optimal Cycle:	58	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	20	10	310	20	10	10	5	760	50	140	350	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	10	310	20	10	10	5	760	50	140	350	10
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	10	310	20	10	10	5	760	50	140	350	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	10	310	20	10	10	5	760	50	140	350	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	10	310	20	10	10	5	760	50	140	350	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	20	10	310	20	10	10	5	760	50	140	350	10
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.93	0.93	0.95	0.94	0.94	0.95	0.95	0.95
Lanes:	1.00	1.00	1.00	1.00	0.50	0.50	1.00	1.88	0.12	1.00	1.94	0.06
Final Sat.:	1805	1900	1615	1805	879	879	1805	3357	221	1805	3496	100
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.19	0.01	0.01	0.01	0.00	0.23	0.23	0.08	0.10	0.10
Crit Moves:			****	****				****		****		
Green/Cycle:	0.14	0.23	0.23	0.12	0.20	0.20	0.16	0.27	0.27	0.12	0.23	0.23
Volume/Cap:	0.08	0.02	0.84	0.09	0.06	0.06	0.02	0.84	0.84	0.66	0.44	0.44
Delay/Veh:	22.4	17.9	37.3	23.9	19.3	19.3	21.3	27.1	27.1	33.2	20.3	20.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.4	17.9	37.3	23.9	19.3	19.3	21.3	27.1	27.1	33.2	20.3	20.3
HCM2kAvg:	0	0	8	0	0	0	0	10	10	4	3	3

Weston Ranch Towne Center EIR
Future 2025 Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #2 Carolyn Weston/S. Manthey

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Cycle (sec): 120 Critical Vol./Cap. (X): 0.609
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 33.2
Optimal Cycle: 60 Level Of Service: C

****

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	1 0	1		1 0	1 0	1		1 0	1 1	0		1 0	1 1	0	
Volume Module:																
Base Vol:	50	60	360		60	40	60		75	1010	70		290	70	30	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	50	60	360		60	40	60		75	1010	70		290	70	30	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	50	60	360		60	40	60		75	1010	70		290	70	30	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	50	60	360		60	40	60		75	1010	70		290	70	30	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	50	60	360		60	40	60		75	1010	70		290	70	30	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	50	60	360		60	40	60		75	1010	70		290	70	30	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	1.00	0.85		0.95	1.00	0.85		0.95	0.94	0.94		0.95	0.91	0.91	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.87	0.13		1.00	1.40	0.60	
Final Sat.:	1805	1900	1615		1805	1900	1615		1805	3342	232		1805	2413	1034	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.03	0.22		0.03	0.02	0.04		0.04	0.30	0.30		0.16	0.03	0.03	
Crit Moves:	****						****			****			****			
Green/Cycle:	0.06	0.08	0.33		0.06	0.08	0.08		0.30	0.47	0.47		0.25	0.43	0.43	
Volume/Cap:	0.47	0.38	0.67		0.57	0.25	0.45		0.14	0.64	0.64		0.64	0.07	0.07	
Delay/Veh:	58.1	53.6	37.3		62.3	52.3	54.7		30.9	24.7	24.7		43.1	20.3	20.3	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	58.1	53.6	37.3		62.3	52.3	54.7		30.9	24.7	24.7		43.1	20.3	20.3	
HCM2kAvg:	3	2	12		3	2	3		2	15	15		11	1	1	

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2025 Cumulative AM
3: Downing Avenue & I-5 SB Ramps

3/3/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95						1.00	0.88
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		5085	1583	1770	3539						1770	2787
Flt Permitted		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (perm)		5085	1583	1770	3539						1770	2787
Volume (vph)	0	1296	290	40	180	0	0	0	0	220	0	579
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1296	290	40	180	0	0	0	0	220	0	579
RTOR Reduction (vph)	0	0	134	0	0	0	0	0	0	0	0	451
Lane Group Flow (vph)	0	1296	156	40	180	0	0	0	0	0	220	128
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		32.3	32.3	2.4	38.7						13.3	13.3
Effective Green, g (s)		32.3	32.3	2.4	38.7						13.3	13.3
Actuated g/C Ratio		0.54	0.54	0.04	0.65						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)		2737	852	71	2283						392	618
v/s Ratio Prot		c0.25		c0.02	0.05							
v/s Ratio Perm			0.10								0.12	0.05
v/c Ratio		0.47	0.18	0.56	0.08						0.56	0.21
Uniform Delay, d1		8.6	7.1	28.3	4.0						20.8	19.1
Progression Factor		1.00	1.00	1.12	0.95						1.00	1.00
Incremental Delay, d2		0.6	0.5	9.6	0.1						1.8	0.2
Delay (s)		9.2	7.6	41.4	3.9						22.6	19.2
Level of Service		A	A	D	A						C	B
Approach Delay (s)		8.9			10.7			0.0			20.1	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

2025 Cumulative AM
4: Downing Avenue & I-5 NB Ramps

3/3/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	0.97	1.00			0.95			1.00	1.00			
Frt	1.00	1.00			0.90			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (prot)	3433	1863			3168			1770	1583			
Flt Permitted	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (perm)	3433	1863			3168			1770	1583			
Volume (vph)	966	550	0	0	90	210	130	0	30	0	0	0
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	966	550	0	0	90	210	130	0	30	0	0	0
RTOR Reduction (vph)	0	0	0	0	153	0	0	0	26	0	0	0
Lane Group Flow (vph)	966	550	0	0	147	0	0	130	4	0	0	0
Turn Type	Prot						Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	23.6	43.8			16.2			8.2	8.2			
Effective Green, g (s)	23.6	43.8			16.2			8.2	8.2			
Actuated g/C Ratio	0.39	0.73			0.27			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)	1350	1360			855			242	216			
v/s Ratio Prot	c0.28	c0.30			0.05							
v/s Ratio Perm								0.07	0.00			
v/c Ratio	0.72	0.40			0.17			0.54	0.02			
Uniform Delay, d1	15.4	3.1			16.8			24.1	22.4			
Progression Factor	0.67	0.58			1.00			1.00	1.00			
Incremental Delay, d2	1.7	0.8			0.4			2.3	0.0			
Delay (s)	12.0	2.6			17.2			26.4	22.5			
Level of Service	B	A			B			C	C			
Approach Delay (s)		8.6			17.2			25.7			0.0	
Approach LOS		A			B			C			A	

Intersection Summary			
HCM Average Control Delay	11.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Weston Ranch Towne Center EIR
Future 2025 Without Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Downing/Turnpike

Average Delay (sec/veh): 4.9 Worst Case Level Of Service: D[26.3]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	1!	0 0	0	0	1!	0 0	1	0	0	1 0	1	0	0	1 0
Volume Module:																
Base Vol:	60	20	50		10	10	50		80	470	30		10	190	70	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	60	20	50		10	10	50		80	470	30		10	190	70	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	60	20	50		10	10	50		80	470	30		10	190	70	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	60	20	50		10	10	50		80	470	30		10	190	70	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Final Vol.:	60	20	50		10	10	50		80	470	30		10	190	70	
Critical Gap Module:																
Critical Gp:	7.1	6.5	6.2		7.1	6.5	6.2		4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3		3.5	4.0	3.3		2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	920	925	485		925	905	225		260	xxxx	xxxxx		500	xxxx	xxxxx	
Potent Cap.:	254	271	586		252	278	819		1316	xxxx	xxxxx		1075	xxxx	xxxxx	
Move Cap.:	219	252	586		205	259	819		1316	xxxx	xxxxx		1075	xxxx	xxxxx	
Volume/Cap:	0.27	0.08	0.09		0.05	0.04	0.06		0.06	xxxx	xxxx		0.01	xxxx	xxxx	
Level Of Service Module:																
Queue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.2	xxxx	xxxxx		0.0	xxxx	xxxxx	
Stopped Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		7.9	xxxx	xxxxx		8.4	xxxx	xxxxx	
LOS by Move:	*	*	*		*	*	*		A	*	*		A	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	296	xxxxx		xxxx	472	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	2.1	xxxxx		xxxxx	0.5	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd StpDel:	xxxxx	26.3	xxxxx		xxxxx	14.0	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	D	*		*	B	*		*	*	*		*	*	*	
ApproachDel:	26.3				14.0				xxxxxx				xxxxxx			
ApproachLOS:	D				B				*				*			

Weston Ranch Towne Center EIR
Future 2025 Without Project
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

****

Intersection #6 William Moss/McDougald

****

Cycle (sec): 60 Critical Vol./Cap. (X): 0.288
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 19.8
Optimal Cycle: 50 Level Of Service: B

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	50	200	50	20	230	60	70	170	80	50	110	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	200	50	20	230	60	70	170	80	50	110	20
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	50	200	50	20	230	60	70	170	80	50	110	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	50	200	50	20	230	60	70	170	80	50	110	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	200	50	20	230	60	70	170	80	50	110	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	50	200	50	20	230	60	70	170	80	50	110	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.92	0.92	0.95	0.92	0.92	0.95	0.90	0.90	0.95	0.93	0.93
Lanes:	1.00	1.60	0.40	1.00	1.59	0.41	1.00	1.36	0.64	1.00	1.69	0.31
Final Sat.:	1805	2801	700	1805	2774	724	1805	2337	1100	1805	2984	543
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.07	0.01	0.08	0.08	0.04	0.07	0.07	0.03	0.04	0.04
Crit Moves:	****				****			****		****		
Green/Cycle:	0.12	0.23	0.23	0.16	0.27	0.27	0.14	0.23	0.23	0.12	0.21	0.21
Volume/Cap:	0.24	0.32	0.32	0.07	0.31	0.31	0.27	0.31	0.31	0.24	0.18	0.18
Delay/Veh:	24.7	19.6	19.6	21.6	17.8	17.8	23.4	19.2	19.2	24.7	19.8	19.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.7	19.6	19.6	21.6	17.8	17.8	23.4	19.2	19.2	24.7	19.8	19.8
HCM2kAvg:	1	2	2	0	2	2	1	2	2	1	1	1

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Weston Ranch Towne Center EIR
Future 2025 Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

****

Intersection #7 William Moss/S. Manthey

****

Cycle (sec): 60 Critical Vol./Cap. (X): 0.274
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 17.8
Optimal Cycle: 46 Level Of Service: B

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 0	0	0 0	0 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	70	80	0	0	120	40	120	0	150	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	80	0	0	120	40	120	0	150	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	70	80	0	0	120	40	120	0	150	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	70	80	0	0	120	40	120	0	150	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	80	0	0	120	40	120	0	150	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	70	80	0	0	120	40	120	0	150	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.97	0.97	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.75	0.25	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	1377	459	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.00	0.00	0.09	0.09	0.07	0.00	0.09	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.14	0.27	0.00	0.00	0.32	0.32	0.19	0.00	0.34	0.00	0.00	0.00
Volume/Cap:	0.27	0.16	0.00	0.00	0.27	0.27	0.35	0.00	0.27	0.00	0.00	0.00
Delay/Veh:	23.6	16.8	0.0	0.0	15.5	15.5	21.8	0.0	14.7	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.6	16.8	0.0	0.0	15.5	15.5	21.8	0.0	14.7	0.0	0.0	0.0
HCM2kAvg:	1	1	0	0	2	2	2	0	2	0	0	0

****

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8 McDougald/Henry Long

Cycle (sec): 100 Critical Vol./Cap. (X): 0.556
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 11.7
Optimal Cycle: 0 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 0	0	0 0	1 0	1	0 0	1! 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	50	80	0	0	370	130	140	0	110	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	80	0	0	370	130	140	0	110	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	50	80	0	0	370	130	140	0	110	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	50	80	0	0	370	130	140	0	110	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	80	0	0	370	130	140	0	110	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	50	80	0	0	370	130	140	0	110	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	1.00	1.00	0.56	0.00	0.44	0.00	0.00	0.00
Final Sat.:	559	607	0	0	666	763	373	0	293	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.09	0.13	xxxx	xxxx	0.56	0.17	0.38	xxxx	0.38	xxxx	xxxx	xxxx
Crit Moves:		****			****				****			
Delay/Veh:	9.5	9.2	0.0	0.0	14.2	8.2	11.0	0.0	11.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.5	9.2	0.0	0.0	14.2	8.2	11.0	0.0	11.0	0.0	0.0	0.0
LOS by Move:	A	A	*	*	B	A	B	*	B	*	*	*
ApproachDel:	9.3			12.7			11.0			xxxxxx		
Delay Adj:	1.00			1.00			1.00			xxxxx		
ApprAdjDel:	9.3			12.7			11.0			xxxxxx		
LOS by Appr:	A			B			B			*		

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #9 Manthey/Henry Long

Cycle (sec): 100 Critical Vol./Cap. (X): 0.135
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 7.2
Optimal Cycle: 0 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	0 0	0	0 0	0 0	1	1 0	0 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	0	0	0	0	0	140	60	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	140	60	0	0	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	140	60	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	140	60	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	140	60	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	0	0	140	60	0	0	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	0	0	0	0	0	1035	807	0	0	0	0	0
Capacity Analysis Module:												
Vol/Sat:	xxxx	xxxx	xxxx	xxxx	xxxx	0.14	0.07	xxxx	xxxx	xxxx	xxxx	xxxx
Crit Moves:						****	****					
Delay/Veh:	0.0	0.0	0.0	0.0	0.0	7.0	7.7	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.0	0.0	7.0	7.7	0.0	0.0	0.0	0.0	0.0
LOS by Move:	*	*	*	*	*	A	A	*	*	*	*	*
ApproachDel:	xxxxxx			7.0			7.7			xxxxxx		
Delay Adj:	xxxxx			1.00			1.00			xxxxx		
ApprAdjDel:	xxxxxx			7.0			7.7			xxxxxx		
LOS by Appr:	*			A			A			*		

Weston Ranch Towne Center EIR
Future 2025 Without Project
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #10 French Camp/Wolfe

****

Cycle (sec): 90 Critical Vol./Cap. (X): 0.383
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 27.0
Optimal Cycle: 50 Level Of Service: C

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	0 1	0	2 0	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	10	10	10	670	50	30	10	510	10	20	150	170
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	10	10	670	50	30	10	510	10	20	150	170
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	10	10	670	50	30	10	510	10	20	150	170
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	10	10	670	50	30	10	510	10	20	150	170
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	10	10	670	50	30	10	510	10	20	150	170
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	10	10	10	670	50	30	10	510	10	20	150	170
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.92	0.94	0.94	0.95	0.91	0.91	0.95	0.84	0.84
Lanes:	1.00	0.50	0.50	2.00	0.62	0.38	1.00	2.94	0.06	1.00	2.00	1.00
Final Sat.:	1805	879	879	3502	1121	673	1805	5072	99	1805	3181	1591
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.19	0.04	0.04	0.01	0.10	0.10	0.01	0.05	0.11
Crit Moves:		****		****			****					****
Green/Cycle:	0.21	0.11	0.11	0.41	0.30	0.30	0.08	0.18	0.18	0.13	0.23	0.23
Volume/Cap:	0.03	0.10	0.10	0.47	0.15	0.15	0.07	0.56	0.56	0.09	0.21	0.47
Delay/Veh:	28.0	36.2	36.2	19.9	22.9	22.9	38.7	34.5	34.5	35.0	28.3	30.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.0	36.2	36.2	19.9	22.9	22.9	38.7	34.5	34.5	35.0	28.3	30.6
HCM2kAvg:	0	1	1	7	2	2	0	5	5	1	2	5

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Weston Ranch Towne Center EIR
Future 2025 Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #11 French Camp/McDougald

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Cycle (sec): 90 Critical Vol./Cap. (X): 0.665
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 24.6
Optimal Cycle: 54 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	0 0	0	1 0	0 0	1	1 0	2 0	0	0 0	1 1	0
Volume Module:												
Base Vol:	0	0	0	460	0	20	10	1160	0	0	270	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	460	0	20	10	1160	0	0	270	120
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	460	0	20	10	1160	0	0	270	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	460	0	20	10	1160	0	0	270	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	460	0	20	10	1160	0	0	270	120
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	460	0	20	10	1160	0	0	270	120
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	0.95	1.00	1.00	0.91	0.91
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.38	0.62
Final Sat.:	0	0	0	1805	0	1615	1805	3610	0	0	2384	1060
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.25	0.00	0.01	0.01	0.32	0.00	0.00	0.11	0.11
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.35	0.00	0.35	0.21	0.44	0.00	0.00	0.31	0.31
Volume/Cap:	0.00	0.00	0.00	0.73	0.00	0.04	0.03	0.73	0.00	0.00	0.37	0.37
Delay/Veh:	0.0	0.0	0.0	30.0	0.0	19.3	28.2	22.6	0.0	0.0	24.6	24.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	30.0	0.0	19.3	28.2	22.6	0.0	0.0	24.6	24.6
HCM2kAvg:	0	0	0	13	0	0	0	14	0	0	4	4

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Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #16 Yettner/Manthey

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: C[16.1]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	0	1 0	1	0	0	1 0	0	0	1!	0 0	0	0	1!	0 0
Volume Module:																
Base Vol:	20	160		10	10	610		20	10	10		30	10	10		20
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	20	160		10	10	610		20	10	10		30	10	10		20
Added Vol:	0	0		0	0	0		0	0	0		0	0	0		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	20	160		10	10	610		20	10	10		30	10	10		20
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	20	160		10	10	610		20	10	10		30	10	10		20
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Final Vol.:	20	160		10	10	610		20	10	10		30	10	10		20
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx		7.1	6.5		6.2	7.1	6.5		6.2
FollowUpTim:	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx		3.5	4.0		3.3	3.5	4.0		3.3
Capacity Module:																
Cnflict Vol:	630	xxxx	xxxxx		170	xxxx	xxxxx		860	850		620	865	855		165
Potent Cap.:	962	xxxx	xxxxx		1420	xxxx	xxxxx		278	300		492	276	298		885
Move Cap.:	962	xxxx	xxxxx		1420	xxxx	xxxxx		259	291		492	247	290		885
Volume/Cap:	0.02	xxxx	xxxx		0.01	xxxx	xxxx		0.04	0.03		0.06	0.04	0.03		0.02
Level Of Service Module:																
Queue:	0.1	xxxx	xxxxx		0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Stopped Del:	8.8	xxxx	xxxxx		7.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	A	*	*		A	*	*	*	*	*	*	*	*			
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	373	xxxxx		xxxx	410	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	0.5	xxxxx		xxxxx	0.3	xxxxx	
Shrd StpDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	16.1	xxxxx		xxxxx	14.7	xxxxx	
Shared LOS:	*	*	*		*	*	*		*	C	*		*	B	*	
ApproachDel:	xxxxxx				xxxxxx				16.1				14.7			
ApproachLOS:	*				*				C				B			

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #17 Mathews/S. Manthey

Cycle (sec): 100 Critical Vol./Cap. (X): 0.827
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 18.3
Optimal Cycle: 0 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10		10	7	10		10	7	10		10	7	10		10
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0	1	0	1	0 1
Volume Module:																
Base Vol:	20	20		30	60	30		30	60	210		20	70	550		160
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	20	20		30	60	30		30	60	210		20	70	550		160
Added Vol:	0	0		0	0	0		0	0	0		0	0	0		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	20	20		30	60	30		30	60	210		20	70	550		160
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	20	20		30	60	30		30	60	210		20	70	550		160
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	20	20		30	60	30		30	60	210		20	70	550		160
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Final Vol.:	20	20		30	60	30		30	60	210		20	70	550		160
Saturation Flow Module:																
Adjustment:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Lanes:	0.28	0.29		0.43	0.50	0.25		0.25	0.21	0.72		0.07	1.00	1.00		1.00
Final Sat.:	153	153		230	272	136		136	135	471		45	609	665		764
Capacity Analysis Module:																
Vol/Sat:	0.13	0.13		0.13	0.22	0.22		0.22	0.45	0.45		0.45	0.11	0.83		0.21
Crit Moves:	****				****				****				****			
Delay/Veh:	10.0	10.0		10.0	10.8	10.8		10.8	12.4	12.4		12.4	9.3	28.0		8.6
Delay Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:	10.0	10.0		10.0	10.8	10.8		10.8	12.4	12.4		12.4	9.3	28.0		8.6
LOS by Move:	A	A		A	B	B		B	B	B		B	A	D		A
ApproachDel:	10.0				10.8				12.4				22.4			
Delay Adj:	1.00				1.00				1.00				1.00			
ApprAdjDel:	10.0				10.8				12.4				22.4			
LOS by Appr:	A				B				B				C			

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #18 Mathews/I5 SB Ramps

Average Delay (sec/veh): 21.8 Worst Case Level Of Service: E[37.4]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	0	0	0		1	0	0	0	1		0	0	0	1	0		1	0	1	0	0	
Volume Module:																								
Base Vol:	0	0	0		410	0		470	0		230	70		30		310	0							
Growth Adj:	1.00	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00		1.00	1.00							
Initial Bse:	0	0	0		410	0		470	0		230	70		30		310	0							
Added Vol:	0	0	0		0	0		0	0		0	0		0		0	0							
PasserByVol:	0	0	0		0	0		0	0		0	0		0		0	0							
Initial Fut:	0	0	0		410	0		470	0		230	70		30		310	0							
User Adj:	1.00	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00		1.00	1.00							
PHF Adj:	1.00	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00		1.00	1.00							
PHF Volume:	0	0	0		410	0		470	0		230	70		30		310	0							
Reduct Vol:	0	0	0		0	0		0	0		0	0		0		0	0							
Final Vol.:	0	0	0		410	0		470	0		230	70		30		310	0							
Critical Gap Module:																								
Critical Gp:	xxxxx	xxxx	xxxxx		6.4	xxxx		6.2	xxxxx	xxxx	xxxxx			4.1	xxxx	xxxxx								
FollowUpTim:	xxxxx	xxxx	xxxxx		3.5	xxxx		3.3	xxxxx	xxxx	xxxxx			2.2	xxxx	xxxxx								
Capacity Module:																								
Cnflict Vol:	xxxx	xxxx	xxxxx		635	xxxx		310	xxxx	xxxx	xxxxx			300	xxxx	xxxxx								
Potent Cap.:	xxxx	xxxx	xxxxx		446	xxxx		735	xxxx	xxxx	xxxxx			1273	xxxx	xxxxx								
Move Cap.:	xxxx	xxxx	xxxxx		438	xxxx		735	xxxx	xxxx	xxxxx			1273	xxxx	xxxxx								
Volume/Cap:	xxxx	xxxx	xxxx		0.94	xxxx		0.64	xxxx	xxxx	xxxx			0.02	xxxx	xxxx								
Level Of Service Module:																								
Queue:	xxxxx	xxxx	xxxxx		10.8	xxxx		4.7	xxxxx	xxxx	xxxxx			0.1	xxxx	xxxxx								
Stopped Del:	xxxxx	xxxx	xxxxx		59.5	xxxx		18.2	xxxxx	xxxx	xxxxx			7.9	xxxx	xxxxx								
LOS by Move:	*	*	*		F	*		C	*	*	*			A	*	*								
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT			LT -	LTR -	RT								
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx								
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx								
Shrd StpDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx								
Shared LOS:	*	*	*		*	*	*		*	*	*			*	*	*								
ApproachDel:	xxxxxx				37.4				xxxxxx					xxxxxx										
ApproachLOS:	*				E				*					*										

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #19 Mathews/I5 NB Ramps

Average Delay (sec/veh): 8.3 Worst Case Level Of Service: E[44.0]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	1	0	0	0	1		0	0	0	0	0		1	0	1	0	0		0	0	0	1	0	
Volume Module:																								
Base Vol:	150	0	30		0	0		0	180	460		0		0	190	120								
Growth Adj:	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00								
Initial Bse:	150	0	30		0	0		0	180	460		0		0	190	120								
Added Vol:	0	0	0		0	0		0	0	0		0		0	0	0								
PasserByVol:	0	0	0		0	0		0	0	0		0		0	0	0								
Initial Fut:	150	0	30		0	0		0	180	460		0		0	190	120								
User Adj:	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00								
PHF Adj:	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00								
PHF Volume:	150	0	30		0	0		0	180	460		0		0	190	120								
Reduct Vol:	0	0	0		0	0		0	0	0		0		0	0	0								
Final Vol.:	150	0	30		0	0		0	180	460		0		0	190	120								
Critical Gap Module:																								
Critical Gp:	6.4	xxxx		6.2	xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx										
FollowUpTim:	3.5	xxxx		3.3	xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx										
Capacity Module:																								
Cnflict Vol:	1070	xxxx	460		xxxx	xxxx	xxxxx		310	xxxx	xxxxx	xxxx	xxxx	xxxxx										
Potent Cap.:	247	xxxx	605		xxxx	xxxx	xxxxx		1262	xxxx	xxxxx	xxxx	xxxx	xxxxx										
Move Cap.:	220	xxxx	605		xxxx	xxxx	xxxxx		1262	xxxx	xxxxx	xxxx	xxxx	xxxxx										
Volume/Cap:	0.68	xxxx	0.05		xxxx	xxxx	xxxx		0.14	xxxx	xxxx	xxxx	xxxx	xxxx										
Level Of Service Module:																								
Queue:	4.3	xxxx	0.2		xxxxx	xxxx	xxxxx		0.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx										
Stopped Del:	50.5	xxxx	11.3		xxxxx	xxxx	xxxxx		8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx										
LOS by Move:	F	*	B		*	*	*		A	*	*	*	*	*										
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT									
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx									
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx									
Shrd StpDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx									
Shared LOS:	*	*	*		*	*	*		*	*	*		*	*	*									
ApproachDel:	44.0				xxxxxx				xxxxxx					xxxxxx										
ApproachLOS:	E				*				*					*										

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #20 Howard/Wolfe

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: B[12.7]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	1!	0	0		0	0	1!	0	0		1	0	0	1	0		1	0	0	1	0	
Volume Module:																								
Base Vol:	10		10		10		10		10		40		10		270		30		20		150		60	
Growth Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	10		10		10		10		10		40		10		270		30		20		150		60	
Added Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	10		10		10		10		10		40		10		270		30		20		150		60	
User Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Volume:	10		10		10		10		10		40		10		270		30		20		150		60	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Final Vol.:	10		10		10		10		10		40		10		270		30		20		150		60	
Critical Gap Module:																								
Critical Gp:	7.1		6.5		6.2		7.1		6.5		6.2		4.1		xxxx		xxxxx		4.1		xxxx		xxxxx	
FollowUpTim:	3.5		4.0		3.3		3.5		4.0		3.3		2.2		xxxx		xxxxx		2.2		xxxx		xxxxx	
Capacity Module:																								
Cnflict Vol:	550		555		285		535		540		180		210		xxxx		xxxxx		300		xxxx		xxxxx	
Potent Cap.:	449		443		759		459		451		868		1373		xxxx		xxxxx		1273		xxxx		xxxxx	
Move Cap.:	413		433		759		437		441		868		1373		xxxx		xxxxx		1273		xxxx		xxxxx	
Volume/Cap:	0.02		0.02		0.01		0.02		0.02		0.05		0.01		xxxx		xxxx		0.02		xxxx		xxxx	
Level of Service Module:																								
Queue:	xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx		0.0		xxxx		xxxxx		0.0		xxxx		xxxxx	
Stopped Del:	xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx		7.6		xxxx		xxxxx		7.9		xxxx		xxxxx	
LOS by Move:	*		*		*		*		*		*		A		*		*		A		*		*	
Movement:	LT -		LTR -		RT		LT -		LTR -		RT		LT -		LTR -		RT		LT -		LTR -		RT	
Shared Cap.:	xxxx		496		xxxxx		xxxx		655		xxxxx		xxxx		xxxx		xxxxx		xxxx		xxxx		xxxxx	
SharedQueue:	xxxxx		0.2		xxxxx		xxxxx		0.3		xxxxx		xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
Shrd StpDel:	xxxxx		12.7		xxxxx		xxxxx		11.1		xxxxx		xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
Shared LOS:	*		B		*		*		B		*		*		*		*		*		*		*	
ApproachDel:	12.7						11.1						xxxxxx						xxxxxx					
ApproachLOS:	B						B						*						*					

Weston Ranch Towne Center EIR
Future 2025 Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 French Camp Road/Secondary Driveway

Cycle (sec): 120 Critical Vol./Cap. (X): 0.347
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 4.5
Optimal Cycle: 46 Level Of Service: A

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Protected						Protected						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	7		10		10		7		10		10		7		10		10		7		10		10	
Lanes:	0	0	0	0	0		1	0	0	0	1		1	0	3	0	0		0	0	2	1	0	
Volume Module:																								
Base Vol:	0		0		0		0		0		0		0		1620		0		0		380		0	
Growth Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	0		0		0		0		0		0		0		1620		0		0		380		0	
Added Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	0		0		0		0		0		0		0		1620		0		0		380		0	
User Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Volume:	0		0		0		0		0		0		0		1620		0		0		380		0	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	0		0		0		0		0		0		0		1620		0		0		380		0	
PCE Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
MLF Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Final Vol.:	0		0		0		0		0		0		0		1620		0		0		380		0	
Saturation Flow Module:																								
Sat/Lane:	1900		1900		1900		1900		1900		1900		1900		1900		1900		1900		1900		1900	
Adjustment:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		0.91		1.00		1.00		0.91		0.91	
Lanes:	0.00		0.00		0.00		1.00		0.00		1.00		1.00		3.00		0.00		0.00		3.00		0.00	
Final Sat.:	0		0		0		1900		0		1900		1900		5187		0		0		5187		0	
Capacity Analysis Module:																								
Vol/Sat:	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.31		0.00		0.00		0.07		0.00	
Crit Moves:															****				****					
Green/Cycle:	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.84		0.00		0.00		0.53		0.00	
Volume/Cap:	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.37		0.00		0.00		0.14		0.00	
Delay/Veh:	0.0		0.0		0.0		0.0		0.0		0.0		0.0		2.2		0.0		0.0		14.4		0.0	
User DelAdj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
AdjDel/Veh:	0.0		0.0		0.0		0.0		0.0		0.0		0.0		2.2		0.0		0.0		14.4		0.0	
HCM2kAvg:	0		0		0		0		0		0		0		5		0		0		2		0	

Weston Ranch Towne Center EIR
Future 2025 Without Project
PM Peak Hour

Scenario Report

Scenario:	Cumulative w/o Proj PM
Command:	Cumulative w/o Proj PM
Volume:	Cumulative PM
Geometry:	Cumulative
Impact Fee:	Default Impact Fee
Trip Generation:	No Project
Trip Distribution:	Peak Hour
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Weston Ranch Towne Center EIR
Future 2025 Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Carolyn Weston/McDougald

Cycle (sec):	60	Critical Vol./Cap. (X):	0.498
Loss Time (sec):	16 (Y+R = 4 sec)	Average Delay (sec/veh):	22.8
Optimal Cycle:	50	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	10	5	210	20	5	5	10	450	20	250	790	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	5	210	20	5	5	10	450	20	250	790	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	5	210	20	5	5	10	450	20	250	790	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	5	210	20	5	5	10	450	20	250	790	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	5	210	20	5	5	10	450	20	250	790	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	10	5	210	20	5	5	10	450	20	250	790	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.93	0.93	0.95	0.94	0.94	0.95	0.95	0.95
Lanes:	1.00	1.00	1.00	1.00	0.50	0.50	1.00	1.91	0.09	1.00	2.00	0.00
Final Sat.:	1805	1900	1615	1805	879	879	1805	3436	153	1805	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.13	0.01	0.01	0.01	0.01	0.13	0.13	0.14	0.22	0.00
Crit Moves:			****	****			****				****	
Green/Cycle:	0.12	0.19	0.19	0.12	0.18	0.18	0.12	0.24	0.24	0.20	0.31	0.00
Volume/Cap:	0.04	0.01	0.70	0.09	0.03	0.03	0.05	0.56	0.56	0.71	0.70	0.00
Delay/Veh:	23.2	19.9	29.9	23.9	20.4	20.4	23.6	21.0	21.0	29.1	20.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.2	19.9	29.9	23.9	20.4	20.4	23.6	21.0	21.0	29.1	20.0	0.0
HCM2kAvg:	0	0	5	0	0	0	0	5	5	6	8	0

Weston Ranch Towne Center EIR
Future 2025 Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Carolyn Weston/S. Manthey

Cycle (sec): 120 Critical Vol./Cap. (X): 0.782
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 41.7
Optimal Cycle: 88 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	1 0	1		1 0	1 0	1		1 0	1 1	0		1 0	1 1	0	
Volume Module:																
Base Vol:	150	110	320		210	90	190		225	590	80		520	880	150	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	150	110	320		210	90	190		225	590	80		520	880	150	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	150	110	320		210	90	190		225	590	80		520	880	150	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	150	110	320		210	90	190		225	590	80		520	880	150	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	150	110	320		210	90	190		225	590	80		520	880	150	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	150	110	320		210	90	190		225	590	80		520	880	150	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	1.00	0.85		0.95	1.00	0.85		0.95	0.93	0.93		0.95	0.93	0.93	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.76	0.24		1.00	1.71	0.29	
Final Sat.:	1805	1900	1615		1805	1900	1615		1805	3122	423		1805	3016	514	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.06	0.20		0.12	0.05	0.12		0.12	0.19	0.19		0.29	0.29	0.29	
Crit Moves:	****						****			****			****			
Green/Cycle:	0.11	0.11	0.48		0.15	0.15	0.15		0.18	0.24	0.24		0.37	0.43	0.43	
Volume/Cap:	0.78	0.54	0.42		0.78	0.31	0.78		0.68	0.78	0.78		0.78	0.68	0.68	
Delay/Veh:	70.8	53.7	21.0		62.5	46.1	64.2		51.6	47.3	47.3		39.6	29.1	29.1	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	70.8	53.7	21.0		62.5	46.1	64.2		51.6	47.3	47.3		39.6	29.1	29.1	
HCM2kAvg:	8	5	8		10	3	9		9	13	13		19	16	16	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95						1.00	0.88
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		5085	1583	1770	3539						1770	2787
Flt Permitted		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (perm)		5085	1583	1770	3539						1770	2787
Volume (vph)	0	830	110	40	450	0	0	0	0	150	0	990
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	830	110	40	450	0	0	0	0	150	0	990
RTOR Reduction (vph)	0	0	60	0	0	0	0	0	0	0	0	364
Lane Group Flow (vph)	0	830	50	40	450	0	0	0	0	0	150	626
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		27.3	27.3	2.4	33.7						18.3	18.3
Effective Green, g (s)		27.3	27.3	2.4	33.7						18.3	18.3
Actuated g/C Ratio		0.46	0.46	0.04	0.56						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)		2314	720	71	1988						540	850
v/s Ratio Prot		c0.16		c0.02	0.13							
v/s Ratio Perm			0.03								0.08	c0.22
v/c Ratio		0.36	0.07	0.56	0.23						0.28	0.74
Uniform Delay, d1		10.6	9.2	28.3	6.6						15.8	18.7
Progression Factor		1.00	1.00	0.91	0.81						1.00	1.00
Incremental Delay, d2		0.4	0.2	8.9	0.2						0.3	3.3
Delay (s)		11.1	9.4	34.7	5.6						16.1	22.0
Level of Service		B	A	C	A						B	C
Approach Delay (s)		10.9			8.0			0.0			21.3	
Approach LOS		B			A			A			C	

Intersection Summary			
HCM Average Control Delay	14.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
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)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	0.97	1.00			0.95			1.00	1.00			
Frt	1.00	1.00			0.92			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (prot)	3433	1863			3249			1770	1583			
Flt Permitted	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (perm)	3433	1863			3249			1770	1583			
Volume (vph)	650	330	0	0	240	290	250	0	110	0	0	0
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	650	330	0	0	240	290	250	0	110	0	0	0
RTOR Reduction (vph)	0	0	0	0	193	0	0	0	86	0	0	0
Lane Group Flow (vph)	650	330	0	0	337	0	0	250	24	0	0	0
Turn Type	Prot						Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	14.9	39.0			20.1			13.0	13.0			
Effective Green, g (s)	14.9	39.0			20.1			13.0	13.0			
Actuated g/C Ratio	0.25	0.65			0.34			0.22	0.22			
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)	853	1211			1088			384	343			
v/s Ratio Prot	c0.19	0.18			c0.10							
v/s Ratio Perm								0.14	0.02			
v/c Ratio	0.76	0.27			0.31			0.65	0.07			
Uniform Delay, d1	20.9	4.5			14.8			21.4	18.7			
Progression Factor	0.62	0.53			1.00			1.00	1.00			
Incremental Delay, d2	3.9	0.5			0.7			3.9	0.1			
Delay (s)	16.8	2.9			15.5			25.4	18.8			
Level of Service	B	A			B			C	B			
Approach Delay (s)		12.1			15.5			23.3			0.0	
Approach LOS		B			B			C			A	

Intersection Summary			
HCM Average Control Delay	15.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Weston Ranch Towne Center EIR
Future 2025 Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Downing/Turnpike

Average Delay (sec/veh): 6.8 Worst Case Level Of Service: D[30.6]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	1!	0 0	0	0	1!	0 0	1	0	0	1 0	1	0	0	1 0
Volume Module:																
Base Vol:	70	10	10	60	50	70	30	280	130	10	390	10				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	70	10	10	60	50	70	30	280	130	10	390	10				
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	70	10	10	60	50	70	30	280	130	10	390	10				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Volume:	70	10	10	60	50	70	30	280	130	10	390	10				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Final Vol.:	70	10	10	60	50	70	30	280	130	10	390	10				
Critical Gap Module:																
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx				
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx				
Capacity Module:																
Cnflict Vol:	880	825	345	830	885	395	400	xxxx	xxxxx	410	xxxx	xxxxx				
Potent Cap.:	270	310	702	292	286	659	1170	xxxx	xxxxx	1160	xxxx	xxxxx				
Move Cap.:	202	299	702	273	276	659	1170	xxxx	xxxxx	1160	xxxx	xxxxx				
Volume/Cap:	0.35	0.03	0.01	0.22	0.18	0.11	0.03	xxxx	xxxx	0.01	xxxx	xxxx				
Level Of Service Module:																
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx				
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.2	xxxx	xxxxx	8.1	xxxx	xxxxx				
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*				
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT				
Shared Cap.:	xxxx	229	xxxxx	xxxx	355	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	xxxxx	1.8	xxxxx	xxxxx	2.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shrd StpDel:	xxxxx	30.6	xxxxx	xxxxx	25.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	*	D	*	*	D	*	*	*	*	*	*	*				
ApproachDel:	30.6			25.1			xxxxxx			xxxxxx						
ApproachLOS:	D			D			*			*						

Weston Ranch Towne Center EIR
Future 2025 Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

****

Intersection #6 William Moss/McDougald

****

Cycle (sec): 60 Critical Vol./Cap. (X): 0.248
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 20.2
Optimal Cycle: 50 Level Of Service: C

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	90	240	30	10	120	70	40	140	30	30	160	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	240	30	10	120	70	40	140	30	30	160	30
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	90	240	30	10	120	70	40	140	30	30	160	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	240	30	10	120	70	40	140	30	30	160	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	240	30	10	120	70	40	140	30	30	160	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	90	240	30	10	120	70	40	140	30	30	160	30
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.90	0.90	0.95	0.93	0.93	0.95	0.93	0.93
Lanes:	1.00	1.78	0.22	1.00	1.26	0.74	1.00	1.65	0.35	1.00	1.68	0.32
Final Sat.:	1805	3154	394	1805	2155	1257	1805	2896	620	1805	2967	556
Capacity Analysis Module:												
Vol/Sat:	0.05	0.08	0.08	0.01	0.06	0.06	0.02	0.05	0.05	0.02	0.05	0.05
Crit Moves:	****				****		****				****	
Green/Cycle:	0.19	0.24	0.24	0.17	0.22	0.22	0.12	0.19	0.19	0.13	0.21	0.21
Volume/Cap:	0.26	0.32	0.32	0.03	0.26	0.26	0.19	0.25	0.25	0.12	0.26	0.26
Delay/Veh:	21.0	19.0	19.0	20.9	19.7	19.7	24.4	20.8	20.8	23.1	20.1	20.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.0	19.0	19.0	20.9	19.7	19.7	24.4	20.8	20.8	23.1	20.1	20.1
HCM2kAvg:	2	2	2	0	2	2	1	2	2	1	2	2

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Weston Ranch Towne Center EIR
Future 2025 Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

****

Intersection #7 William Moss/S. Manthey

****

Cycle (sec): 60 Critical Vol./Cap. (X): 0.384
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 16.4
Optimal Cycle: 46 Level Of Service: B

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 0	0	0 0	0 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	130	180	0	0	150	140	130	0	70	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	180	0	0	150	140	130	0	70	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	130	180	0	0	150	140	130	0	70	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	130	180	0	0	150	140	130	0	70	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	180	0	0	150	140	130	0	70	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	130	180	0	0	150	140	130	0	70	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.94	0.94	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.52	0.48	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	919	858	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.07	0.09	0.00	0.00	0.16	0.16	0.07	0.00	0.04	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.19	0.36	0.00	0.00	0.42	0.42	0.19	0.00	0.21	0.00	0.00	0.00
Volume/Cap:	0.38	0.26	0.00	0.00	0.38	0.38	0.38	0.00	0.21	0.00	0.00	0.00
Delay/Veh:	22.1	13.8	0.0	0.0	12.2	12.2	22.1	0.0	20.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.1	13.8	0.0	0.0	12.2	12.2	22.1	0.0	20.0	0.0	0.0	0.0
HCM2kAvg:	3	2	0	0	4	4	3	0	1	0	0	0

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Weston Ranch Towne Center EIR
Future 2025 Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8 McDougald/Henry Long

Cycle (sec): 100 Critical Vol./Cap. (X): 0.703
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 15.2
Optimal Cycle: 0 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 0	0	0 0	1 0	1	0 0	1! 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	100	460	0	0	370	130	60	0	90	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	100	460	0	0	370	130	60	0	90	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	100	460	0	0	370	130	60	0	90	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	100	460	0	0	370	130	60	0	90	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	460	0	0	370	130	60	0	90	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	100	460	0	0	370	130	60	0	90	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	1.00	1.00	0.40	0.00	0.60	0.00	0.00	0.00
Final Sat.:	593	654	0	0	641	726	231	0	347	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.17	0.70	xxxx	xxxx	0.58	0.18	0.26	xxxx	0.26	xxxx	xxxx	xxxx
Crit Moves:		****			****		****					
Delay/Veh:	9.8	19.7	0.0	0.0	15.3	8.5	10.6	0.0	10.6	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.8	19.7	0.0	0.0	15.3	8.5	10.6	0.0	10.6	0.0	0.0	0.0
LOS by Move:	A	C	*	*	C	A	B	*	B	*	*	*
ApproachDel:		17.9			13.5			10.6			xxxxxx	
Delay Adj:		1.00			1.00			1.00			xxxxx	
ApprAdjDel:		17.9			13.5			10.6			xxxxxx	
LOS by Appr:		C			B			B			*	

Weston Ranch Towne Center EIR
Future 2025 Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #9 Manthey/Henry Long

Cycle (sec): 100 Critical Vol./Cap. (X): 0.484
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 10.5
Optimal Cycle: 0 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	0 0	0	0 0	0 0	1	1 0	0 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	0	0	0	0	0	100	400	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	100	400	0	0	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	100	400	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	100	400	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	100	400	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	0	0	100	400	0	0	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	0	0	0	0	0	803	827	0	0	0	0	0
Capacity Analysis Module:												
Vol/Sat:	xxxx	xxxx	xxxx	xxxx	xxxx	0.12	0.48	xxxx	xxxx	xxxx	xxxx	xxxx
Crit Moves:						****	****					
Delay/Veh:	0.0	0.0	0.0	0.0	0.0	7.7	11.2	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.0	0.0	7.7	11.2	0.0	0.0	0.0	0.0	0.0
LOS by Move:	*	*	*	*	*	A	B	*	*	*	*	*
ApproachDel:		xxxxxx			7.7			11.2			xxxxxx	
Delay Adj:		xxxxx			1.00			1.00			xxxxx	
ApprAdjDel:		xxxxxx			7.7			11.2			xxxxxx	
LOS by Appr:		*			A			B			*	

Weston Ranch Towne Center EIR
Future 2025 Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #10 French Camp/Wolfe

****

Cycle (sec): 90 Critical Vol./Cap. (X): 0.829
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 31.3
Optimal Cycle: 89 Level Of Service: C

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	0 1	0	2 0	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	40	160	70	220	20	20	10	220	10	20	610	770
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	160	70	220	20	20	10	220	10	20	610	770
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	160	70	220	20	20	10	220	10	20	610	770
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	40	160	70	220	20	20	10	220	10	20	610	770
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	160	70	220	20	20	10	220	10	20	610	770
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	40	160	70	220	20	20	10	220	10	20	610	770
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.92	0.93	0.93	0.95	0.90	0.90	0.95	0.83	0.83
Lanes:	1.00	0.70	0.30	2.00	0.50	0.50	1.00	2.87	0.13	1.00	2.00	1.00
Final Sat.:	1805	1261	552	3502	879	879	1805	4932	224	1805	3168	1584
Capacity Analysis Module:												
Vol/Sat:	0.02	0.13	0.13	0.06	0.02	0.02	0.01	0.04	0.04	0.01	0.19	0.49
Crit Moves:		****		****			****					****
Green/Cycle:	0.09	0.14	0.14	0.08	0.13	0.13	0.08	0.36	0.36	0.25	0.53	0.53
Volume/Cap:	0.25	0.92	0.92	0.81	0.18	0.18	0.07	0.13	0.13	0.04	0.36	0.92
Delay/Veh:	39.0	74.3	74.3	57.0	35.5	35.5	38.7	19.5	19.5	25.7	12.4	28.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.0	74.3	74.3	57.0	35.5	35.5	38.7	19.5	19.5	25.7	12.4	28.9
HCM2kAvg:	1	10	10	5	1	1	0	1	1	0	5	24

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Weston Ranch Towne Center EIR
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PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #11 French Camp/McDougald

****

Cycle (sec): 90 Critical Vol./Cap. (X): 0.660
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 16.5
Optimal Cycle: 53 Level Of Service: B

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	0 0	0	1 0	0 0	1	1 0	2 0	0	0 0	1 1	0
Volume Module:												
Base Vol:	0	0	0	160	0	10	20	490	0	0	1400	540
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	160	0	10	20	490	0	0	1400	540
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	160	0	10	20	490	0	0	1400	540
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	160	0	10	20	490	0	0	1400	540
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	160	0	10	20	490	0	0	1400	540
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	160	0	10	20	490	0	0	1400	540
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	0.95	1.00	1.00	0.91	0.91
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.44	0.56
Final Sat.:	0	0	0	1805	0	1615	1805	3610	0	0	2496	963
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.09	0.00	0.01	0.01	0.14	0.00	0.00	0.56	0.56
Crit Moves:					****		****				****	
Green/Cycle:	0.00	0.00	0.00	0.11	0.00	0.11	0.08	0.48	0.00	0.00	0.68	0.68
Volume/Cap:	0.00	0.00	0.00	0.80	0.00	0.06	0.14	0.28	0.00	0.00	0.83	0.83
Delay/Veh:	0.0	0.0	0.0	58.7	0.0	35.9	39.2	14.2	0.0	0.0	13.2	13.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	58.7	0.0	35.9	39.2	14.2	0.0	0.0	13.2	13.2
HCM2kAvg:	0	0	0	7	0	0	1	4	0	0	22	22

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #16 Yettner/Manthey

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: C[15.6]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	0	1 0	1	0	0	1 0	0	0	1!	0 0	0	0	1!	0 0
Volume Module:																
Base Vol:	30	520		10	10	180		20	20	10		20	10	10		20
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	30	520		10	10	180		20	20	10		20	10	10		20
Added Vol:	0	0		0	0	0		0	0	0		0	0	0		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	30	520		10	10	180		20	20	10		20	10	10		20
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	30	520		10	10	180		20	20	10		20	10	10		20
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Final Vol.:	30	520		10	10	180		20	20	10		20	10	10		20
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx		7.1	6.5		6.2	7.1	6.5		6.2
FollowUpTim:	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx		3.5	4.0		3.3	3.5	4.0		3.3
Capacity Module:																
Cnflict Vol:	200	xxxx	xxxxx		530	xxxx	xxxxx		810	800		190	810	805		525
Potent Cap.:	1384	xxxx	xxxxx		1048	xxxx	xxxxx		301	320		857	301	318		556
Move Cap.:	1384	xxxx	xxxxx		1048	xxxx	xxxxx		276	311		857	280	308		556
Volume/Cap:	0.02	xxxx	xxxx		0.01	xxxx	xxxx		0.07	0.03		0.02	0.04	0.03		0.04
Level Of Service Module:																
Queue:	0.1	xxxx	xxxxx		0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Stopped Del:	7.7	xxxx	xxxxx		8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	A	*	*		A	*	*	*	*	*	*	*	*			
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	391	xxxxx		xxxx	384	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	0.4	xxxxx		xxxxx	0.3	xxxxx	
Shrd StpDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	15.6	xxxxx		xxxxx	15.5	xxxxx	
Shared LOS:	*	*	*		*	*	*		*	C	*		*	C	*	
ApproachDel:	xxxxxx				xxxxxx				15.6				15.5			
ApproachLOS:	*				*				C				C			

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #17 Mathews/S. Manthey

Cycle (sec): 100 Critical Vol./Cap. (X): 1.203
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 71.7
Optimal Cycle: 0 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10		10	7	10		10	7	10		10	7	10		10
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0	1	0	1	0 1
Volume Module:																
Base Vol:	10	40		30	100	40		70	40	720		20	40	280		100
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	10	40		30	100	40		70	40	720		20	40	280		100
Added Vol:	0	0		0	0	0		0	0	0		0	0	0		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	10	40		30	100	40		70	40	720		20	40	280		100
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	10	40		30	100	40		70	40	720		20	40	280		100
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	10	40		30	100	40		70	40	720		20	40	280		100
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Final Vol.:	10	40		30	100	40		70	40	720		20	40	280		100
Saturation Flow Module:																
Adjustment:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Lanes:	0.12	0.50		0.38	0.48	0.19		0.33	0.05	0.92		0.03	1.00	1.00		1.00
Final Sat.:	61	245		184	253	101		177	33	598		17	523	564		633
Capacity Analysis Module:																
Vol/Sat:	0.16	0.16		0.16	0.40	0.40		0.40	1.20	1.20		1.20	0.08	0.50		0.16
Crit Moves:		****						****		****				****		
Delay/Veh:	11.1	11.1		11.1	13.6	13.6		13.6	125.2	125		125.2	10.0	14.8		9.3
Delay Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:	11.1	11.1		11.1	13.6	13.6		13.6	125.2	125		125.2	10.0	14.8		9.3
LOS by Move:	B	B		B	B	B		B	F	F		F	B	B		A
ApproachDel:	11.1				13.6				125.2				13.0			
Delay Adj:	1.00				1.00				1.00				1.00			
ApprAdjDel:	11.1				13.6				125.2				13.0			
LOS by Appr:	B				B				F				B			

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #18 Mathews/I5 SB Ramps

Average Delay (sec/veh): 4.6 Worst Case Level Of Service: C[21.4]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	0	0	0		1	0	0	0	1		0	0	0	1	0		1	0	1	0	0	
Volume Module:																								
Base Vol:	0	0	0				120	0		170			0	730		120			30	250		0		
Growth Adj:	1.00	1.00	1.00				1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
Initial Bse:	0	0	0				120	0		170			0	730		120			30	250		0		
Added Vol:	0	0	0				0	0		0			0	0		0			0	0		0		
PasserByVol:	0	0	0				0	0		0			0	0		0			0	0		0		
Initial Fut:	0	0	0				120	0		170			0	730		120			30	250		0		
User Adj:	1.00	1.00	1.00				1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
PHF Adj:	1.00	1.00	1.00				1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
PHF Volume:	0	0	0				120	0		170			0	730		120			30	250		0		
Reduct Vol:	0	0	0				0	0		0			0	0		0			0	0		0		
Final Vol.:	0	0	0				120	0		170			0	730		120			30	250		0		
Critical Gap Module:																								
Critical Gp:	xxxxx	xxxx	xxxxx				6.4	xxxx		6.2			xxxxx	xxxx		xxxxx			4.1	xxxx		xxxxx		
FollowUpTim:	xxxxx	xxxx	xxxxx				3.5	xxxx		3.3			xxxxx	xxxx		xxxxx			2.2	xxxx		xxxxx		
Capacity Module:																								
Cnflict Vol:	xxxx	xxxx	xxxxx				1100	xxxx		250			xxxx	xxxx		xxxxx			850	xxxx		xxxxx		
Potent Cap.:	xxxx	xxxx	xxxxx				237	xxxx		794			xxxx	xxxx		xxxxx			797	xxxx		xxxxx		
Move Cap.:	xxxx	xxxx	xxxxx				230	xxxx		794			xxxx	xxxx		xxxxx			797	xxxx		xxxxx		
Volume/Cap:	xxxx	xxxx	xxxx				0.52	xxxx		0.21			xxxx	xxxx		xxxx			0.04	xxxx		xxxx		
Level of Service Module:																								
Queue:	xxxxx	xxxx	xxxxx				2.7	xxxx		0.8			xxxxx	xxxx		xxxxx			0.1	xxxx		xxxxx		
Stopped Del:	xxxxx	xxxx	xxxxx				36.5	xxxx		10.8			xxxxx	xxxx		xxxxx			9.7	xxxx		xxxxx		
LOS by Move:	*	*	*				E	*		B			*	*		*			A	*		*		
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
Shrd StpDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
Shared LOS:	*	*	*				*	*		*			*	*		*			*	*		*		
ApproachDel:	xxxxxx						21.4						xxxxxx						xxxxxx					
ApproachLOS:	*						C						*						*					

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #19 Mathews/I5 NB Ramps

Average Delay (sec/veh): 8.7 Worst Case Level Of Service: F[118.1]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	1	0	0	0	1		0	0	0	0	0		1	0	1	0	0		0	0	0	1	0	
Volume Module:																								
Base Vol:	40	0	20				0	0		0			500	350		0			0	240		380		
Growth Adj:	1.00	1.00	1.00				1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
Initial Bse:	40	0	20				0	0		0			500	350		0			0	240		380		
Added Vol:	0	0	0				0	0		0			0	0		0			0	0		0		
PasserByVol:	0	0	0				0	0		0			0	0		0			0	0		0		
Initial Fut:	40	0	20				0	0		0			500	350		0			0	240		380		
User Adj:	1.00	1.00	1.00				1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
PHF Adj:	1.00	1.00	1.00				1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
PHF Volume:	40	0	20				0	0		0			500	350		0			0	240		380		
Reduct Vol:	0	0	0				0	0		0			0	0		0			0	0		0		
Final Vol.:	40	0	20				0	0		0			500	350		0			0	240		380		
Critical Gap Module:																								
Critical Gp:	6.4	xxxx		6.2			xxxxx	xxxx		xxxxx			4.1	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
FollowUpTim:	3.5	xxxx		3.3			xxxxx	xxxx		xxxxx			2.2	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
Capacity Module:																								
Cnflict Vol:	1780	xxxx		350			xxxx	xxxx		xxxxx			620	xxxx		xxxxx			xxxx	xxxx		xxxxx		
Potent Cap.:	91	xxxx		698			xxxx	xxxx		xxxxx			970	xxxx		xxxxx			xxxx	xxxx		xxxxx		
Move Cap.:	54	xxxx		698			xxxx	xxxx		xxxxx			970	xxxx		xxxxx			xxxx	xxxx		xxxxx		
Volume/Cap:	0.74	xxxx		0.03			xxxx	xxxx		xxxx			0.52	xxxx		xxxx			xxxx	xxxx		xxxx		
Level of Service Module:																								
Queue:	3.1	xxxx		0.1			xxxxx	xxxx		xxxxx			3.0	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
Stopped Del:	172.0	xxxx		10.3			xxxxx	xxxx		xxxxx			12.6	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
LOS by Move:	F	*		B			*	*		*			B	*		*			*	*		*		
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
Shrd StpDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
Shared LOS:	*	*	*				*	*		*			*	*		*			*	*		*		
ApproachDel:	118.1						xxxxxx						xxxxxx						xxxxxx					
ApproachLOS:	F						*						*						*					

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #20 Howard/Wolfe

Average Delay (sec/veh): 3.3 Worst Case Level Of Service: C[19.0]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	1!	0 0	0	0	1!	0 0	1	0	0	1 0	1	0	0	1 0
Volume Module:																
Base Vol:	10	10	10		10	10	10		170	400	10		20	130	10	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	10	10	10		10	10	10		170	400	10		20	130	10	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	10	10	10		10	10	10		170	400	10		20	130	10	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	10	10	10		10	10	10		170	400	10		20	130	10	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Final Vol.:	10	10	10		10	10	10		170	400	10		20	130	10	
Critical Gap Module:																
Critical Gp:	7.1	6.5	6.2		7.1	6.5	6.2		4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3		3.5	4.0	3.3		2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	930	925	405		930	925	135		140	xxxx	xxxxx		410	xxxx	xxxxx	
Potent Cap.:	250	271	650		250	271	919		1456	xxxx	xxxxx		1160	xxxx	xxxxx	
Move Cap.:	215	235	650		214	235	919		1456	xxxx	xxxxx		1160	xxxx	xxxxx	
Volume/Cap:	0.05	0.04	0.02		0.05	0.04	0.01		0.12	xxxx	xxxx		0.02	xxxx	xxxx	
Level of Service Module:																
Queue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.4	xxxx	xxxxx		0.1	xxxx	xxxxx	
Stopped Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		7.8	xxxx	xxxxx		8.2	xxxx	xxxxx	
LOS by Move:	*	*	*		*	*	*		A	*	*		A	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	287	xxxxx		xxxx	300	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.3	xxxxx		xxxxx	0.3	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd StpDel:	xxxxx	19.0	xxxxx		xxxxx	18.3	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	C	*		*	C	*		*	*	*		*	*	*	
ApproachDel:	19.0				18.3				xxxxxx				xxxxxx			
ApproachLOS:	C				C				*				*			

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 French Camp Road/Secondary Driveway

Cycle (sec): 120 Critical Vol./Cap. (X): 0.368
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 4.5
Optimal Cycle: 46 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0	0	0	0 0	1	0	0	0 1	1	0	3	0 0	0	0	2	1 0
Volume Module:																
Base Vol:	0	0	0		0	0	0		0	650	0		0	1720	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		0	0	0		0	650	0		0	1720	0	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		0	0	0		0	650	0		0	1720	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	0	0		0	0	0		0	650	0		0	1720	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		0	0	0		0	650	0		0	1720	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	0	0	0		0	0	0		0	650	0		0	1720	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	0.91	1.00		1.00	0.91	0.91	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	3.00	0.00		0.00	3.00	0.00	
Final Sat.:	0	0	0		1900	0	1900		1900	5187	0		0	5187	0	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.13	0.00		0.00	0.33	0.00	
Crit Moves:									****					****		
Green/Cycle:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.61	0.00		0.00	0.84	0.00	
Volume/Cap:	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.20	0.00		0.00	0.39	0.00	
Delay/Veh:	0.0	0.0	0.0		0.0	0.0	0.0		0.0	10.2	0.0		0.0	2.3	0.0	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	0.0		0.0	0.0	0.0		0.0	10.2	0.0		0.0	2.3	0.0	
HCM2kAvg:	0	0	0		0	0	0		0	3	0		0	5	0	

2025 PLUS PROJECT

Weston Ranch Towne Center EIR
Future 2025 With Project
AM Peak Hour

Scenario Report

Scenario:	Cumulative AM
Command:	Cumulative AM
Volume:	Cumulative AM With Project
Geometry:	Cumulative
Impact Fee:	Default Impact Fee
Trip Generation:	Project AM
Trip Distribution:	Peak Hour
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Weston Ranch Towne Center EIR
Future 2025 With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Carolyn Weston/McDougald

Cycle (sec):	60	Critical Vol./Cap. (X):	0.697
Loss Time (sec):	16 (Y+R = 4 sec)	Average Delay (sec/veh):	28.1
Optimal Cycle:	58	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	1 0	1		1 0	0 1	0		1 0	1 1	0		1 0	1 1	0	
Volume Module:																
Base Vol:	20	10	310		20	10	10		5	760	50		140	350	10	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	20	10	310		20	10	10		5	760	50		140	350	10	
Added Vol:	4	0	0		0	0	0		0	7	7		0	4	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	24	10	310		20	10	10		5	767	57		140	354	10	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	24	10	310		20	10	10		5	767	57		140	354	10	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	24	10	310		20	10	10		5	767	57		140	354	10	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	24	10	310		20	10	10		5	767	57		140	354	10	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	1.00	0.85		0.95	0.93	0.93		0.95	0.94	0.94		0.95	0.95	0.95	
Lanes:	1.00	1.00	1.00		1.00	0.50	0.50		1.00	1.86	0.14		1.00	1.95	0.05	
Final Sat.:	1805	1900	1615		1805	879	879		1805	3327	247		1805	3497	99	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.19		0.01	0.01	0.01		0.00	0.23	0.23		0.08	0.10	0.10	
Crit Moves:			****		****					****			****			
Green/Cycle:	0.14	0.23	0.23		0.12	0.20	0.20		0.16	0.27	0.27		0.12	0.23	0.23	
Volume/Cap:	0.09	0.02	0.85		0.09	0.06	0.06		0.02	0.85	0.85		0.66	0.44	0.44	
Delay/Veh:	22.6	18.0	38.5		23.9	19.4	19.4		21.2	27.5	27.5		33.2	20.2	20.2	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	22.6	18.0	38.5		23.9	19.4	19.4		21.2	27.5	27.5		33.2	20.2	20.2	
HCM2kAvg:	0	0	9		0	0	0		0	10	10		4	3	3	

Weston Ranch Towne Center EIR
Future 2025 With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Carolyn Weston/S. Manthey

Cycle (sec):	120	Critical Vol./Cap. (X):	0.658
Loss Time (sec):	16 (Y+R = 4 sec)	Average Delay (sec/veh):	35.0
Optimal Cycle:	66	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1	0	1	0 1	1	0	1	0 1	1	0	1	1 0	1	0	1	1 0
Volume Module:																
Base Vol:	50	60	360		60	40	60		75	1010	70		290	70	30	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	50	60	360		60	40	60		75	1010	70		290	70	30	
Added Vol:	4	0	56		0	0	0		0	0	7		69	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	54	60	416		60	40	60		75	1010	77		359	70	30	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	54	60	416		60	40	60		75	1010	77		359	70	30	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	54	60	416		60	40	60		75	1010	77		359	70	30	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	54	60	416		60	40	60		75	1010	77		359	70	30	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	1.00	0.85		0.95	1.00	0.85		0.95	0.94	0.94		0.95	0.91	0.91	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.86	0.14		1.00	1.40	0.60	
Final Sat.:	1805	1900	1615		1805	1900	1615		1805	3317	253		1805	2413	1034	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.03	0.26		0.03	0.02	0.04		0.04	0.30	0.30		0.20	0.03	0.03	
Crit Moves:	****						****			****			****			
Green/Cycle:	0.06	0.08	0.37		0.06	0.08	0.08		0.30	0.44	0.44		0.29	0.43	0.43	
Volume/Cap:	0.51	0.38	0.70		0.57	0.25	0.45		0.14	0.69	0.69		0.69	0.07	0.07	
Delay/Veh:	59.1	53.6	35.7		62.3	52.3	54.7		30.9	28.6	28.6		42.2	20.3	20.3	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	59.1	53.6	35.7		62.3	52.3	54.7		30.9	28.6	28.6		42.2	20.3	20.3	
HCM2kAvg:	3	2	14		3	2	3		2	17	17		13	1	1	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95						1.00	0.88
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		5085	1583	1770	3539						1770	2787
Flt Permitted		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (perm)		5085	1583	1770	3539						1770	2787
Volume (vph)	0	1274	290	40	180	0	0	0	0	220	0	561
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1274	290	40	180	0	0	0	0	220	0	561
RTOR Reduction (vph)	0	0	133	0	0	0	0	0	0	0	0	439
Lane Group Flow (vph)	0	1274	157	40	180	0	0	0	0	0	220	122
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		32.5	32.5	2.4	38.9						13.1	13.1
Effective Green, g (s)		32.5	32.5	2.4	38.9						13.1	13.1
Actuated g/C Ratio		0.54	0.54	0.04	0.65						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)		2754	857	71	2294						386	608
v/s Ratio Prot		c0.25		c0.02	0.05							
v/s Ratio Perm			0.10								0.12	0.04
v/c Ratio		0.46	0.18	0.56	0.08						0.57	0.20
Uniform Delay, d1		8.4	7.0	28.3	3.9						20.9	19.2
Progression Factor		1.00	1.00	1.35	1.47						1.00	1.00
Incremental Delay, d2		0.6	0.5	9.6	0.1						1.9	0.2
Delay (s)		9.0	7.5	47.7	5.8						22.9	19.3
Level of Service		A	A	D	A						C	B
Approach Delay (s)		8.7			13.4			0.0			20.3	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	64.7%	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)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	0.97	1.00			0.95			1.00	1.00			
Frt	1.00	1.00			0.90			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (prot)	3433	1863			3168			1770	1583			
Flt Permitted	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (perm)	3433	1863			3168			1770	1583			
Volume (vph)	944	550	0	0	90	210	130	0	30	0	0	0
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	944	550	0	0	90	210	130	0	30	0	0	0
RTOR Reduction (vph)	0	0	0	0	145	0	0	0	26	0	0	0
Lane Group Flow (vph)	944	550	0	0	155	0	0	130	4	0	0	0
Turn Type	Prot						Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	21.1	43.8			18.7			8.2	8.2			
Effective Green, g (s)	21.1	43.8			18.7			8.2	8.2			
Actuated g/C Ratio	0.35	0.73			0.31			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)	1207	1360			987			242	216			
v/s Ratio Prot	c0.27	c0.30			0.05							
v/s Ratio Perm								0.07	0.00			
v/c Ratio	0.78	0.40			0.16			0.54	0.02			
Uniform Delay, d1	17.4	3.1			14.9			24.1	22.4			
Progression Factor	0.56	0.51			1.00			1.00	1.00			
Incremental Delay, d2	3.1	0.8			0.3			2.3	0.0			
Delay (s)	12.8	2.4			15.3			26.4	22.5			
Level of Service	B	A			B			C	C			
Approach Delay (s)		9.0			15.3			25.7			0.0	
Approach LOS		A			B			C			A	

Intersection Summary			
HCM Average Control Delay	11.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Weston Ranch Towne Center EIR
Future 2025 With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Downing/Turnpike

Average Delay (sec/veh): 4.9 Worst Case Level Of Service: D[26.3]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	1!	0	0		0	0	1!	0	0		1	0	0	1	0		1	0	0	1	0	
Volume Module:																								
Base Vol:	60		20		50		10		10		50		80		470		30		10		190		70	
Growth Adj:	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00
Initial Bse:	60		20		50		10		10		50		80		470		30		10		190		70	
Added Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	60		20		50		10		10		50		80		470		30		10		190		70	
User Adj:	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00
PHF Adj:	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00
PHF Volume:	60		20		50		10		10		50		80		470		30		10		190		70	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Final Vol.:	60		20		50		10		10		50		80		470		30		10		190		70	
Critical Gap Module:																								
Critical Gp:	7.1		6.5		6.2		7.1		6.5		6.2		4.1	xxxx	xxxxx				4.1	xxxx	xxxxx			
FollowUpTim:	3.5		4.0		3.3		3.5		4.0		3.3		2.2	xxxx	xxxxx				2.2	xxxx	xxxxx			
Capacity Module:																								
Cnflict Vol:	920		925		485		925		905		225		260	xxxx	xxxxx				500	xxxx	xxxxx			
Potent Cap.:	254		271		586		252		278		819		1316	xxxx	xxxxx				1075	xxxx	xxxxx			
Move Cap.:	219		252		586		205		259		819		1316	xxxx	xxxxx				1075	xxxx	xxxxx			
Volume/Cap:	0.27	0.08		0.09		0.05	0.04		0.06		0.06	xxxx		xxxx			0.01	xxxx		xxxx				
Level Of Service Module:																								
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						0.2	xxxx	xxxxx				0.0	xxxx	xxxxx				
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						7.9	xxxx	xxxxx				8.4	xxxx	xxxxx				
LOS by Move:	*	*	*	*	*	*						A	*	*				A	*	*				
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx		296	xxxxx			xxxx		472	xxxxx			xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx		2.1	xxxxx	xxxxx		0.5	xxxxx	xxxxx				xxxx	xxxxx	xxxxx				xxxx	xxxxx				
Shrd StpDel:	xxxxx		26.3	xxxxx	xxxxx		14.0	xxxxx	xxxxx				xxxx	xxxxx	xxxxx				xxxx	xxxxx				
Shared LOS:	*		D	*	*		B	*	*				*	*	*				*	*				
ApproachDel:	26.3						14.0						xxxxxx						xxxxxx					
ApproachLOS:	D						B						*						*					

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 William Moss/McDougald

Cycle (sec): 60 Critical Vol./Cap. (X): 0.294
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 19.9
Optimal Cycle: 50 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	1	1	0	1 0	1	1	0	1 0	1	1	0	1 0	1	1	0
Volume Module:																
Base Vol:	50	200	50		20	230	60		70	170	80		50	110	20	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	50	200	50		20	230	60		70	170	80		50	110	20	
Added Vol:	4	0	0		7	0	0		0	0	7		0	0	4	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	54	200	50		27	230	60		70	170	87		50	110	24	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	54	200	50		27	230	60		70	170	87		50	110	24	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	54	200	50		27	230	60		70	170	87		50	110	24	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	54	200	50		27	230	60		70	170	87		50	110	24	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.92	0.92		0.95	0.92	0.92		0.95	0.90	0.90		0.95	0.92	0.92	
Lanes:	1.00	1.60	0.40		1.00	1.59	0.41		1.00	1.32	0.68		1.00	1.64	0.36	
Final Sat.:	1805	2801	700		1805	2774	724		1805	2266	1160		1805	2883	629	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.07	0.07		0.01	0.08	0.08		0.04	0.08	0.08		0.03	0.04	0.04	
Crit Moves:	****					****				****			****			
Green/Cycle:	0.12	0.22	0.22		0.16	0.26	0.26		0.15	0.24	0.24		0.12	0.21	0.21	
Volume/Cap:	0.26	0.32	0.32		0.10	0.32	0.32		0.27	0.32	0.32		0.24	0.18	0.18	
Delay/Veh:	24.8	19.7	19.7		21.8	18.0	18.0		23.3	19.1	19.1		24.7	19.7	19.7	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	24.8	19.7	19.7		21.8	18.0	18.0		23.3	19.1	19.1		24.7	19.7	19.7	
HCM2kAvg:	1	2	2		1	2	2		1	2	2		1	1	1	

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 William Moss/S. Manthey

Cycle (sec): 60 Critical Vol./Cap. (X): 0.332
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 17.5
Optimal Cycle: 46 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	1	0	0	0 0	0	1	0	1 0	0	0	1	0 0	0	0	0
Volume Module:																
Base Vol:	70	80	0		0	120	40		120	0	150		0	0	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	70	80	0		0	120	40		120	0	150		0	0	0	
Added Vol:	4	60	0		0	76	0		0	0	7		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	74	140	0		0	196	40		120	0	157		0	0	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	74	140	0		0	196	40		120	0	157		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	74	140	0		0	196	40		120	0	157		0	0	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	74	140	0		0	196	40		120	0	157		0	0	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	1.00	1.00		1.00	0.98	0.98		0.95	1.00	0.85		1.00	1.00	1.00	
Lanes:	1.00	1.00	0.00		0.00	0.83	0.17		1.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	1805	1900	0		0	1542	315		1805	0	1615		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.07	0.00		0.00	0.13	0.13		0.07	0.00	0.10		0.00	0.00	0.00	
Crit Moves:	****					****					****					
Green/Cycle:	0.12	0.30	0.00		0.00	0.38	0.38		0.17	0.00	0.29		0.00	0.00	0.00	
Volume/Cap:	0.33	0.25	0.00		0.00	0.33	0.33		0.39	0.00	0.33		0.00	0.00	0.00	
Delay/Veh:	24.9	16.2	0.0		0.0	13.3	13.3		23.0	0.0	17.0		0.0	0.0	0.0	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	24.9	16.2	0.0		0.0	13.3	13.3		23.0	0.0	17.0		0.0	0.0	0.0	
HCM2kAvg:	2	2	0		0	3	3		3	0	3		0	0	0	

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8 McDougald/Henry Long

Cycle (sec): 100 Critical Vol./Cap. (X): 0.567
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 11.8
Optimal Cycle: 0 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	1	0	0	0 0	1	0	1	0 0	1!	0	0	0 0	0	0	0
Volume Module:																
Base Vol:	50	80	0		0	370	130		140	0	110		0	0	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	50	80	0		0	370	130		140	0	110		0	0	0	
Added Vol:	0	4	0		0	7	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	50	84	0		0	377	130		140	0	110		0	0	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	50	84	0		0	377	130		140	0	110		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	50	84	0		0	377	130		140	0	110		0	0	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	50	84	0		0	377	130		140	0	110		0	0	0	
Saturation Flow Module:																
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	1.00	0.00		0.00	1.00	1.00		0.56	0.00	0.44		0.00	0.00	0.00	
Final Sat.:	558	606	0		0	665	762		371	0	291		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.14	xxxx		xxxx	0.57	0.17		0.38	xxxx	0.38		xxxx	xxxx	xxxx	
Crit Moves:		****				****			****							
Delay/Veh:	9.5	9.3	0.0		0.0	14.5	8.2		11.0	0.0	11.0		0.0	0.0	0.0	
Delay Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	9.5	9.3	0.0		0.0	14.5	8.2		11.0	0.0	11.0		0.0	0.0	0.0	
LOS by Move:	A	A	*		*	B	A		B	*	B		*	*	*	
ApproachDel:	9.3					12.9			11.0				xxxxxx			
Delay Adj:	1.00					1.00			1.00				xxxxx			
ApprAdjDel:	9.3					12.9			11.0				xxxxxx			
LOS by Appr:	A					B			B				*			

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #9 Manthey/Henry Long

Cycle (sec): 100 Critical Vol./Cap. (X): 0.226
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 7.9
Optimal Cycle: 0 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0 0	0	0	0	0 0	0	0	1	1 0	0	0	0	0 0	0	0	0
Volume Module:																
Base Vol:	0	0	0		0	0	140		60	0	0		0	0	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		0	0	140		60	0	0		0	0	0	
Added Vol:	0	0	0		0	0	82		65	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		0	0	222		125	0	0		0	0	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	0	0		0	0	222		125	0	0		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		0	0	222		125	0	0		0	0	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	0	0	0		0	0	222		125	0	0		0	0	0	
Saturation Flow Module:																
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.00	0.00	0.00		0.00	0.00	1.00		1.00	0.00	0.00		0.00	0.00	0.00	
Final Sat.:	0	0	0		0	0	981		771	0	0		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	xxxx	xxxx	xxxx		xxxx	xxxx	0.23		0.16	xxxx	xxxx		xxxx	xxxx	xxxx	
Crit Moves:							****		****							
Delay/Veh:	0.0	0.0	0.0		0.0	0.0	7.6		8.3	0.0	0.0		0.0	0.0	0.0	
Delay Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	0.0		0.0	0.0	7.6		8.3	0.0	0.0		0.0	0.0	0.0	
LOS by Move:	*	*	*		*	*	A		A	*	*		*	*	*	
ApproachDel:	xxxxxx					7.6			8.3				xxxxxx			
Delay Adj:	xxxxx					1.00			1.00				xxxxx			
ApprAdjDel:	xxxxxx					7.6			8.3				xxxxxx			
LOS by Appr:	*					A			A				*			

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 French Camp/Wolfe

Cycle (sec): 90 Critical Vol./Cap. (X): 0.387
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 27.2
Optimal Cycle: 50 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	0	1	0	2 0	0	1	0	1 0	2	1	0	1 0	2	1	0
Volume Module:																
Base Vol:	10	10	10		670	50	30		10	510	10		20	150	170	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	10	10	10		670	50	30		10	510	10		20	150	170	
Added Vol:	0	0	2		3	0	0		0	10	0		1	6	2	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	10	10	12		673	50	30		10	520	10		21	156	172	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	10	10	12		673	50	30		10	520	10		21	156	172	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	10	10	12		673	50	30		10	520	10		21	156	172	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	10	10	12		673	50	30		10	520	10		21	156	172	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.92	0.92		0.92	0.94	0.94		0.95	0.91	0.91		0.95	0.84	0.84	
Lanes:	1.00	0.45	0.55		2.00	0.62	0.38		1.00	2.94	0.06		1.00	2.00	1.00	
Final Sat.:	1805	793	951		3502	1121	673		1805	5074	98		1805	3185	1592	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.19	0.04	0.04		0.01	0.10	0.10		0.01	0.05	0.11	
Crit Moves:		****			****				****						****	
Green/Cycle:	0.21	0.11	0.11		0.41	0.30	0.30		0.08	0.18	0.18		0.13	0.23	0.23	
Volume/Cap:	0.03	0.11	0.11		0.47	0.15	0.15		0.07	0.57	0.57		0.09	0.21	0.47	
Delay/Veh:	28.1	36.3	36.3		19.9	23.0	23.0		38.7	34.6	34.6		35.0	28.3	30.6	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	28.1	36.3	36.3		19.9	23.0	23.0		38.7	34.6	34.6		35.0	28.3	30.6	
HCM2kAvg:	0	1	1		7	2	2		0	5	5		1	2	5	

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 French Camp/McDougald

Cycle (sec): 90 Critical Vol./Cap. (X): 0.674
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 24.8
Optimal Cycle: 55 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0 0	0	0	0	1 0	0	0	1	1 0	2	0	0	0 0	1	1	0
Volume Module:																
Base Vol:	0	0	0		460	0	20		10	1160	0		0	270	120	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		460	0	20		10	1160	0		0	270	120	
Added Vol:	0	0	0		7	0	0		0	15	0		0	9	4	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		467	0	20		10	1175	0		0	279	124	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	0	0		467	0	20		10	1175	0		0	279	124	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		467	0	20		10	1175	0		0	279	124	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	0	0	0		467	0	20		10	1175	0		0	279	124	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.95	1.00	0.85		0.95	0.95	1.00		1.00	0.91	0.91	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	1.38	0.62	
Final Sat.:	0	0	0		1805	0	1615		1805	3610	0		0	2384	1060	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.26	0.00	0.01		0.01	0.33	0.00		0.00	0.12	0.12	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.35	0.00	0.35		0.21	0.44	0.00		0.00	0.31	0.31	
Volume/Cap:	0.00	0.00	0.00		0.74	0.00	0.04		0.03	0.74	0.00		0.00	0.38	0.38	
Delay/Veh:	0.0	0.0	0.0		30.4	0.0	19.3		28.5	22.9	0.0		0.0	24.4	24.4	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	0.0		30.4	0.0	19.3		28.5	22.9	0.0		0.0	24.4	24.4	
HCM2kAvg:	0	0	0		13	0	0		0	15	0		0	5	5	

CORSIM LEVEL OF SERVICE REPORT
Including Upstream Delays

Project: Weston Ranch Towne Center EIR **HCM:** 2000
Scenario: Year 2025 With Project **PHF:** 1
TOD: AM **# of Runs:** 10

Intersection: Manthey Road / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	40	42	105	3	48.4	D	--
	T	67	61	91	2	39.9	D	--
	R	30	33	110	2	6.3	A	--
	Subtotal	**137**	**137**	**100**	**--**	**34.4**	**C**	**--**
SB	L	203	199	98	7	41.3	D	--
	T	119	122	103	8	40.7	D	--
	R	12	12	100	4	29.6	C	--
	Subtotal	**334**	**333**	**100**	**--**	**40.7**	**D**	**--**
EB	L	16	17	106	3	53.4	D	--
	T	1292	1299	101	10	19.0	B	--
	R	330	323	98	11	21.9	C	--
	Subtotal	**1638**	**1638**	**100**	**--**	**19.9**	**B**	**--**
WB	L	130	134	103	5	37.7	D	--
	T	349	341	98	16	8.0	A	--
	R	306	321	105	18	6.7	A	--
	Subtotal	**785**	**796**	**101**	**--**	**12.5**	**B**	**--**
	Total	**2894**	**2904**	**100**	**--**	**21.0**	**C**	**--**

Intersection: I-5 SB Ramps / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
SB	L	1800	1791	100	11	26.8	C	--
	R	284	291	102	11	25.6	C	--
	Subtotal	**2084**	**2082**	**100**	**--**	**26.6**	**C**	**--**
EB	T	1293	1289	100	26	26.5	C	--
	R	233	245	105	26	8.7	A	--
	Subtotal	**1526**	**1534**	**101**	**--**	**23.6**	**C**	**--**
WB	T	100	506	506	20	18.7	B	--
	Subtotal	**100**	**506**	**506**	**--**	**18.7**	**B**	**--**
	Total	**3710**	**4122**	**111**	**--**	**24.5**	**C**	**--**

CORSIM LEVEL OF SERVICE REPORT
Including Upstream Delays

Project: Weston Ranch Towne Center EIR **HCM:** 2000
Scenario: Year 2025 With Project **PHF:** 1
TOD: AM **# of Runs:** 10

Intersection: I-5 NB Ramps / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	205	201	98	9	41.9	D	--
	R	210	213	101	10	4.6	A	--
	Subtotal	**415**	**414**	**100**	**--**	**22.7**	**C**	**--**
EB	T	100	2758	2758	25	4.4	A	--
	Subtotal	**100**	**2758**	**2758**	**--**	**4.4**	**A**	**--**
WB	T	1550	1371	88	26	4.8	A	--
	Subtotal	**1550**	**1371**	**88**	**--**	**4.8**	**A**	**--**
	Total	**2065**	**4543**	**220**	**--**	**6.2**	**A**	**--**

Intersection: Sperry Road / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	573	591	103	9	36.5	D	--
	T	10	9	90	2	39.5	D	--
	R	290	271	93	9	12.8	B	--
	Subtotal	**873**	**871**	**100**	**--**	**29.2**	**C**	**--**
SB	L	350	342	98	13	50.5	D	--
	T	60	61	102	6	46.2	D	--
	R	61	66	108	13	7.6	A	--
	Subtotal	**471**	**469**	**100**	**--**	**43.9**	**D**	**--**
EB	L	174	168	97	13	46.2	D	--
	T	2432	2455	101	24	15.7	B	--
	R	371	350	94	7	7.7	A	--
	Subtotal	**2977**	**2974**	**100**	**--**	**16.5**	**B**	**--**
WB	L	30	30	100	8	43.8	D	--
	T	712	713	100	8	22.5	C	--
	R	30	29	93	3	5.4	A	--
	Subtotal	**772**	**771**	**100**	**--**	**22.7**	**C**	**--**
	Total	**5093**	**5086**	**100**	**--**	**22.1**	**C**	**--**

Weston Ranch Towne Center EIR
Future 2025 With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #16 Yettner/Manthey

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: C[16.7]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	0	1 0	1	0	0	1 0	0	0	1!	0 0	0	0	1!	0 0
Volume Module:																
Base Vol:	20	160		10	10	610		20	10		10	30	10		10	20
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
Initial Bse:	20	160		10	10	610		20	10		10	30	10		10	20
Added Vol:	0	22		0	0	16		0	0		0	0	0		0	0
PasserByVol:	0	0		0	0	0		0	0		0	0	0		0	0
Initial Fut:	20	182		10	10	626		20	10		10	30	10		10	20
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
PHF Volume:	20	182		10	10	626		20	10		10	30	10		10	20
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
Final Vol.:	20	182		10	10	626		20	10		10	30	10		10	20
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx		7.1		6.5	6.2	7.1		6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx		3.5		4.0	3.3	3.5		4.0	3.3
Capacity Module:																
Cnflict Vol:	646	xxxx	xxxxx		192	xxxx	xxxxx		898		888	636	903		893	187
Potent Cap.:	949	xxxx	xxxxx		1394	xxxx	xxxxx		262		285	481	260		283	860
Move Cap.:	949	xxxx	xxxxx		1394	xxxx	xxxxx		244		277	481	232		275	860
Volume/Cap:	0.02	xxxx	xxxx		0.01	xxxx	xxxx		0.04		0.04	0.06	0.04		0.04	0.02
Level Of Service Module:																
Queue:	0.1	xxxx	xxxxx		0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Stopped Del:	8.9	xxxx	xxxxx		7.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	A	*	*		A	*	*	*	*	*	*	*	*			
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	359	xxxxx		xxxx	390	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	0.5	xxxxx		xxxxx	0.3	xxxxx	
Shrd StpDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	16.7	xxxxx		xxxxx	15.3	xxxxx	
Shared LOS:	*	*	*		*	*	*		*	C	*		*	C	*	
ApproachDel:	xxxxxx				xxxxxx					16.7				15.3		
ApproachLOS:	*				*					C				C		

Weston Ranch Towne Center EIR
Future 2025 With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #17 Mathews/S. Manthey

Cycle (sec): 100 Critical Vol./Cap. (X): 0.839
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 18.9
Optimal Cycle: 0 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10		10	7	10		10	7	10		10	7	10		10
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0	1	0	1	0 1
Volume Module:																
Base Vol:	20	20		30	60	30		30	60	210		20	70	550		160
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	20	20		30	60	30		30	60	210		20	70	550		160
Added Vol:	0	3		0	13	2		1	2	0		0	0	0		17
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	20	23		30	73	32		31	62	210		20	70	550		177
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	20	23		30	73	32		31	62	210		20	70	550		177
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	20	23		30	73	32		31	62	210		20	70	550		177
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Final Vol.:	20	23		30	73	32		31	62	210		20	70	550		177
Saturation Flow Module:																
Adjustment:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Lanes:	0.27	0.32		0.41	0.54	0.23		0.23	0.21	0.72		0.07	1.00	1.00		1.00
Final Sat.:	145	167		217	290	127		123	136	460		44	601	656		751
Capacity Analysis Module:																
Vol/Sat:	0.14	0.14		0.14	0.25	0.25		0.25	0.46	0.46		0.46	0.12	0.84		0.24
Crit Moves:				****	****				****					****		
Delay/Veh:	10.1	10.1		10.1	11.1	11.1		11.1	12.8	12.8		12.8	9.4	29.6		8.9
Delay Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:	10.1	10.1		10.1	11.1	11.1		11.1	12.8	12.8		12.8	9.4	29.6		8.9
LOS by Move:	B	B		B	B	B		B	B	B		B	A	D		A
ApproachDel:	10.1				11.1				12.8				23.2			
Delay Adj:	1.00				1.00				1.00				1.00			
ApprAdjDel:	10.1				11.1				12.8				23.2			
LOS by Appr:	B				B				B				C			

Weston Ranch Towne Center EIR
Future 2025 With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #18 Mathews/I5 SB Ramps

Average Delay (sec/veh): 23.8 Worst Case Level Of Service: E[41.6]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	0	0 0	1	0	0	0 1	0	0	0	1 0	1	0	1	0 0
Volume Module:																
Base Vol:	0	0		0	410	0	470	0	230		70		30	310		0
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0		0	410	0	470	0	230		70		30	310		0
Added Vol:	0	0		0	0	0	0	0	2		11		0	17		0
PasserByVol:	0	0		0	0	0	0	0	0		0		0	0		0
Initial Fut:	0	0		0	410	0	470	0	232		81		30	327		0
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	0		0	410	0	470	0	232		81		30	327		0
Reduct Vol:	0	0		0	0	0	0	0	0		0		0	0		0
Final Vol.:	0	0		0	410	0	470	0	232		81		30	327		0
Critical Gap Module:																
Critical Gp:	xxxxx	xxxx	xxxxx		6.4	xxxx	6.2	xxxxx	xxxx	xxxxx			4.1	xxxx	xxxxx	
FollowUpTim:	xxxxx	xxxx	xxxxx		3.5	xxxx	3.3	xxxxx	xxxx	xxxxx			2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	xxxx	xxxx	xxxxx		660	xxxx	327	xxxx	xxxx	xxxxx			313	xxxx	xxxxx	
Potent Cap.:	xxxx	xxxx	xxxxx		431	xxxx	719	xxxx	xxxx	xxxxx			1259	xxxx	xxxxx	
Move Cap.:	xxxx	xxxx	xxxxx		424	xxxx	719	xxxx	xxxx	xxxxx			1259	xxxx	xxxxx	
Volume/Cap:	xxxx	xxxx	xxxx		0.97	xxxx	0.65	xxxx	xxxx	xxxx			0.02	xxxx	xxxx	
Level Of Service Module:																
Queue:	xxxxx	xxxx	xxxxx		11.6	xxxx	4.9	xxxxx	xxxx	xxxxx			0.1	xxxx	xxxxx	
Stopped Del:	xxxxx	xxxx	xxxxx		67.6	xxxx	18.9	xxxxx	xxxx	xxxxx			7.9	xxxx	xxxxx	
LOS by Move:	*	*	*		F	*	C	*	*	*			A	*	*	
Movement:	LT - LTR - RT				LT - LTR - RT			LT - LTR - RT					LT - LTR - RT			
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx	
Shrd StpDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*		*	*	*	*	*	*			*	*	*	
ApproachDel:	xxxxxx				41.6			xxxxxx					xxxxxx			
ApproachLOS:	*				E			*					*			

Weston Ranch Towne Center EIR
Future 2025 With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #19 Mathews/I5 NB Ramps

Average Delay (sec/veh): 9.9 Worst Case Level Of Service: F[50.9]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	0	0 1	0	0	0	0 0	1	0	1	0 0	0	0	0	1 0
Volume Module:																
Base Vol:	150	0		30	0	0	0		180	460		0	0	190		120
Growth Adj:	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	150	0		30	0	0	0		180	460		0	0	190		120
Added Vol:	13	0		0	0	0	0		0	2		0	0	3		0
PasserByVol:	0	0		0	0	0	0		0	0		0	0	0		0
Initial Fut:	163	0		30	0	0	0		180	462		0	0	193		120
User Adj:	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	163	0		30	0	0	0		180	462		0	0	193		120
Reduct Vol:	0	0		0	0	0	0		0	0		0	0	0		0
Final Vol.:	163	0		30	0	0	0		180	462		0	0	193		120
Critical Gap Module:																
Critical Gp:	6.4	xxxx		6.2	xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
FollowUpTim:	3.5	xxxx		3.3	xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
Capacity Module:																
Cnflict Vol:	1075	xxxx		462	xxxx	xxxx	xxxxx		313	xxxx	xxxxx	xxxx	xxxx	xxxxx		
Potent Cap.:	245	xxxx		604	xxxx	xxxx	xxxxx		1259	xxxx	xxxxx	xxxx	xxxx	xxxxx		
Move Cap.:	218	xxxx		604	xxxx	xxxx	xxxxx		1259	xxxx	xxxxx	xxxx	xxxx	xxxxx		
Volume/Cap:	0.75	xxxx		0.05	xxxx	xxxx	xxxx		0.14	xxxx	xxxx	xxxx	xxxx	xxxx		
Level Of Service Module:																
Queue:	5.1	xxxx		0.2	xxxxx	xxxx	xxxxx		0.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
Stopped Del:	58.2	xxxx		11.3	xxxxx	xxxx	xxxxx		8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
LOS by Move:	F	*		B	*	*	*		A	*	*	*	*	*		
Movement:	LT - LTR - RT				LT - LTR - RT				LT - LTR - RT				LT - LTR - RT			
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd StpDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*		*	*	*		*	*	*		*	*	*	
ApproachDel:	50.9				xxxxxx				xxxxxx				xxxxxx			
ApproachLOS:	F				*				*				*			

Weston Ranch Towne Center EIR
Future 2025 With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #20 Howard/Wolfe

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: B[12.8]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	1!	0 0	0	0	1!	0 0	1	0	0	1 0	1	0	0	1 0
Volume Module:																
Base Vol:	10	10	10		10	10	40		10	270	30		20	150	60	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	10	10	10		10	10	40		10	270	30		20	150	60	
Added Vol:	0	0	0		0	0	1		2	2	0		0	1	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	10	10	10		10	10	41		12	272	30		20	151	60	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	10	10	10		10	10	41		12	272	30		20	151	60	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Final Vol.:	10	10	10		10	10	41		12	272	30		20	151	60	
Critical Gap Module:																
Critical Gp:	7.1	6.5	6.2		7.1	6.5	6.2		4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3		3.5	4.0	3.3		2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	558	562	287		542	547	181		211	xxxx	xxxxx		302	xxxx	xxxxx	
Potent Cap.:	444	439	757		454	447	867		1372	xxxx	xxxxx		1270	xxxx	xxxxx	
Move Cap.:	408	428	757		432	436	867		1372	xxxx	xxxxx		1270	xxxx	xxxxx	
Volume/Cap:	0.02	0.02	0.01		0.02	0.02	0.05		0.01	xxxx	xxxx		0.02	xxxx	xxxx	
Level Of Service Module:																
Queue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.0	xxxx	xxxxx		0.0	xxxx	xxxxx	
Stopped Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		7.6	xxxx	xxxxx		7.9	xxxx	xxxxx	
LOS by Move:	*	*	*		*	*	*		A	*	*		A	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	491	xxxxx		xxxx	653	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.2	xxxxx		xxxxx	0.3	xxxxx		xxxxx	xxxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd StpDel:	xxxxx	12.8	xxxxx		xxxxx	11.1	xxxxx		xxxxx	xxxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	B	*		*	B	*		*	*	*		*	*	*	
ApproachDel:	12.8				11.1				xxxxxx				xxxxxx			
ApproachLOS:	B				B				*				*			

Weston Ranch Towne Center EIR
Future 2025 With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 French Camp Road/Secondary Driveway

Cycle (sec): 120 Critical Vol./Cap. (X): 0.365
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 7.9
Optimal Cycle: 46 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0	0	0	0 0	1	0	0	0 1	1	0	3	0 0	0	0	2	1 0
Volume Module:																
Base Vol:	0	0	0		0	0	0		0	1620	0		0	380	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		0	0	0		0	1620	0		0	380	0	
Added Vol:	0	0	0		20	0	9		14	8	0		0	5	25	
Pass-by:	0	0	0		10	0	3		10	-10	0		0	-3	3	
Initial Fut:	0	0	0		30	0	12		24	1618	0		0	382	28	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	0	0		30	0	12		24	1618	0		0	382	28	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		30	0	12		24	1618	0		0	382	28	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	0	0	0		30	0	12		24	1618	0		0	382	28	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.95	1.00	0.85		0.95	0.91	1.00		1.00	0.90	0.90	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	3.00	0.00		0.00	2.80	0.20	
Final Sat.:	0	0	0		1805	0	1615		1805	5187	0		0	4784	351	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.02	0.00	0.01		0.01	0.31	0.00		0.00	0.08	0.08	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.06	0.00	0.08		0.35	0.78	0.00		0.00	0.50	0.50	
Volume/Cap:	0.00	0.00	0.00		0.28	0.00	0.09		0.04	0.40	0.00		0.00	0.16	0.16	
Delay/Veh:	0.0	0.0	0.0		55.6	0.0	51.1		26.0	4.2	0.0		0.0	16.7	16.7	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	0.0		55.6	0.0	51.1		26.0	4.2	0.0		0.0	16.7	16.7	
HCM2kAvg:	0	0	0		1	0	0		1	6	0		0	3	3	

Weston Ranch Towne Center EIR
Future 2025 With Project
PM Peak Hour

Scenario Report

Scenario:	Cumulative PM
Command:	Cumulative PM
Volume:	Cumulative PM With Project
Geometry:	Cumulative
Impact Fee:	Default Impact Fee
Trip Generation:	Project PM
Trip Distribution:	Peak Hour
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Weston Ranch Towne Center EIR
Future 2025 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Carolyn Weston/McDougald

Cycle (sec): 60 Critical Vol./Cap. (X): 0.505
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 23.0
Optimal Cycle: 50 Level Of Service: C

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Protected						Protected						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	7	10			10		7	10			10		7	10			10		7	10			10	
Lanes:	1	0	1	0	1		1	0	0	1	0		1	0	1	1	0		1	0	1	1	0	
Volume Module:																								
Base Vol:	10		5		210		20		5		5		10		450		20		250		790		0	
Growth Adj:	1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00	
Initial Bse:	10		5		210		20		5		5		10		450		20		250		790		0	
Added Vol:	17		0		0		0		0		0		0		17		17		0		17		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	27		5		210		20		5		5		10		467		37		250		807		0	
User Adj:	1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00	
PHF Adj:	1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00	
PHF Volume:	27		5		210		20		5		5		10		467		37		250		807		0	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	27		5		210		20		5		5		10		467		37		250		807		0	
PCE Adj:	1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00	
MLF Adj:	1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00	
Final Vol.:	27		5		210		20		5		5		10		467		37		250		807		0	
Saturation Flow Module:																								
Sat/Lane:	1900	1900			1900		1900	1900			1900		1900	1900			1900		1900	1900			1900	
Adjustment:	0.95	1.00			0.85		0.95	0.93			0.93		0.95	0.94			0.94		0.95	0.95			0.95	
Lanes:	1.00	1.00			1.00		1.00	0.50			0.50		1.00	1.85			0.15		1.00	2.00			0.00	
Final Sat.:	1805	1900			1615		1805	879			879		1805	3308			262		1805	3610			0	
Capacity Analysis Module:																								
Vol/Sat:	0.01	0.00			0.13		0.01	0.01			0.01		0.01	0.14			0.14		0.22				0.00	
Crit Moves:					****		****						****						****					
Green/Cycle:	0.12	0.18			0.18		0.12	0.18			0.18		0.12	0.24			0.24		0.20	0.32			0.00	
Volume/Cap:	0.12	0.01			0.71		0.09	0.03			0.03		0.05	0.60			0.60		0.71	0.71			0.00	
Delay/Veh:	23.6	20.1			30.6		23.9	20.5			20.5		23.6	21.5			21.5		28.8	20.1			0.0	
User DelAdj:	1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00	
AdjDel/Veh:	23.6	20.1			30.6		23.9	20.5			20.5		23.6	21.5			21.5		28.8	20.1			0.0	
HCM2kAvg:	1		0		5		0	0			0		0	5			5		6	8			0	

Weston Ranch Towne Center EIR
Future 2025 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Carolyn Weston/S. Manthey

Cycle (sec): 120 Critical Vol./Cap. (X): 0.928
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 48.6
Optimal Cycle: 120 Level Of Service: D

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Protected						Protected						Protected						Protected					
Rights:	Ovl						Include						Include						Include					
Min. Green:	7		10		10		7		10		10		7		10		10		7		10		10	
Lanes:	1	0	1	0	1		1	0	1	0	1		1	0	1	1	0		1	0	1	1	0	
Volume Module:																								
Base Vol:	150		110		320		210		90		190		225		590		80		520		880		150	
Growth Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	150		110		320		210		90		190		225		590		80		520		880		150	
Added Vol:	17		0		200		0		0		0		0		0		17		201		0		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	167		110		520		210		90		190		225		590		97		721		880		150	
User Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Volume:	167		110		520		210		90		190		225		590		97		721		880		150	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	167		110		520		210		90		190		225		590		97		721		880		150	
PCE Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
MLF Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Final Vol.:	167		110		520		210		90		190		225		590		97		721		880		150	
Saturation Flow Module:																								
Sat/Lane:	1900		1900		1900		1900		1900		1900		1900		1900		1900		1900		1900		1900	
Adjustment:	0.95		1.00		0.85		0.95		1.00		0.85		0.95		0.93		0.93		0.95		0.93		0.93	
Lanes:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.72		0.28		1.00		1.71		0.29	
Final Sat.:	1805		1900		1615		1805		1900		1615		1805		3035		499		1805		3016		514	
Capacity Analysis Module:																								
Vol/Sat:	0.09		0.06		0.32		0.12		0.05		0.12		0.12		0.19		0.19		0.40		0.29		0.29	
Crit Moves:	****										****				****				****					
Green/Cycle:	0.10		0.09		0.53		0.13		0.13		0.13		0.19		0.21		0.21		0.43		0.45		0.45	
Volume/Cap:	0.93		0.61		0.61		0.88		0.37		0.93		0.65		0.93		0.93		0.93		0.65		0.65	
Delay/Veh:	100.2		58.3		21.3		80.5		49.0		94.8		49.1		64.4		64.4		49.6		26.7		26.7	
User DelAdj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
AdjDel/Veh:	100.2		58.3		21.3		80.5		49.0		94.8		49.1		64.4		64.4		49.6		26.7		26.7	
HCM2kAvg:	10		5		14		11		3		10		9		16		16		31		15		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)		4.0	4.0	4.0	4.0						4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95						1.00	0.88
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		5085	1583	1770	3539						1770	2787
Flt Permitted		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (perm)		5085	1583	1770	3539						1770	2787
Volume (vph)	0	968	110	40	450	0	0	0	0	150	0	1118
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	968	110	40	450	0	0	0	0	150	0	1118
RTOR Reduction (vph)	0	0	66	0	0	0	0	0	0	0	0	320
Lane Group Flow (vph)	0	968	44	40	450	0	0	0	0	0	150	798
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		24.2	24.2	2.4	30.6						21.4	21.4
Effective Green, g (s)		24.2	24.2	2.4	30.6						21.4	21.4
Actuated g/C Ratio		0.40	0.40	0.04	0.51						0.36	0.36
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)		2051	638	71	1805						631	994
v/s Ratio Prot		c0.19		c0.02	0.13							
v/s Ratio Perm			0.03								0.08	c0.29
v/c Ratio		0.47	0.07	0.56	0.25						0.24	0.80
Uniform Delay, d1		13.2	11.0	28.3	8.3						13.6	17.4
Progression Factor		1.00	1.00	0.84	0.67						1.00	1.00
Incremental Delay, d2		0.8	0.2	8.7	0.3						0.2	4.7
Delay (s)		14.0	11.2	32.5	5.8						13.8	22.1
Level of Service		B	B	C	A						B	C
Approach Delay (s)		13.7			8.0			0.0			21.2	
Approach LOS		B			A			A			C	

Intersection Summary				
HCM Average Control Delay	16.0	HCM Level of Service	B	
HCM Volume to Capacity ratio	0.62			
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	62.3%	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)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	0.97	1.00			0.95			1.00	1.00			
Frt	1.00	1.00			0.92			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (prot)	3433	1863			3249			1770	1583			
Flt Permitted	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (perm)	3433	1863			3249			1770	1583			
Volume (vph)	788	330	0	0	240	290	250	0	110	0	0	0
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	788	330	0	0	240	290	250	0	110	0	0	0
RTOR Reduction (vph)	0	0	0	0	204	0	0	0	87	0	0	0
Lane Group Flow (vph)	788	330	0	0	326	0	0	250	23	0	0	0
Turn Type	Prot						Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	17.5	39.2			17.7			12.8	12.8			
Effective Green, g (s)	17.5	39.2			17.7			12.8	12.8			
Actuated g/C Ratio	0.29	0.65			0.29			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)	1001	1217			958			378	338			
v/s Ratio Prot	c0.23	0.18			c0.10							
v/s Ratio Perm								0.14	0.01			
v/c Ratio	0.79	0.27			0.34			0.66	0.07			
Uniform Delay, d1	19.5	4.4			16.6			21.6	18.8			
Progression Factor	0.50	0.47			1.00			1.00	1.00			
Incremental Delay, d2	3.9	0.5			1.0			4.3	0.1			
Delay (s)	13.7	2.6			17.5			25.9	18.9			
Level of Service	B	A			B			C	B			
Approach Delay (s)		10.4			17.5			23.8			0.0	
Approach LOS		B			B			C			A	

Intersection Summary				
HCM Average Control Delay	14.7	HCM Level of Service	B	
HCM Volume to Capacity ratio	0.59			
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	62.3%	ICU Level of Service	B	
Analysis Period (min)	15			
c Critical Lane Group				

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Downing/Turnpike

Average Delay (sec/veh): 6.8 Worst Case Level Of Service: D[30.6]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	1!	0	0		0	0	1!	0	0		1	0	0	1	0		1	0	0	1	0	
Volume Module:																								
Base Vol:	70		10		10		60		50		70		30		280		130		10		390		10	
Growth Adj:	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00
Initial Bse:	70		10		10		60		50		70		30		280		130		10		390		10	
Added Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	70		10		10		60		50		70		30		280		130		10		390		10	
User Adj:	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00
PHF Adj:	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00
PHF Volume:	70		10		10		60		50		70		30		280		130		10		390		10	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Final Vol.:	70		10		10		60		50		70		30		280		130		10		390		10	
Critical Gap Module:																								
Critical Gp:	7.1		6.5		6.2		7.1		6.5		6.2		4.1	xxxx		xxxxx			4.1	xxxx		xxxxx		
FollowUpTim:	3.5		4.0		3.3		3.5		4.0		3.3		2.2	xxxx		xxxxx			2.2	xxxx		xxxxx		
Capacity Module:																								
Cnflict Vol:	880		825		345		830		885		395		400	xxxx		xxxxx			410	xxxx		xxxxx		
Potent Cap.:	270		310		702		292		286		659		1170	xxxx		xxxxx			1160	xxxx		xxxxx		
Move Cap.:	202		299		702		273		276		659		1170	xxxx		xxxxx			1160	xxxx		xxxxx		
Volume/Cap:	0.35	0.03		0.01		0.22	0.18		0.11		0.03	xxxx		xxxx			0.01	xxxx		xxxx				
Level Of Service Module:																								
Queue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		0.1	xxxx		xxxxx			0.0	xxxx		xxxxx				
Stopped Del:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		8.2	xxxx		xxxxx			8.1	xxxx		xxxxx				
LOS by Move:	*	*		*		*	*		*		A	*		*			A	*		*				
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx		229	xxxxx			xxxx		355	xxxxx			xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx		
SharedQueue:	xxxxx		1.8	xxxxx		xxxxx			2.7	xxxxx		xxxxx	xxxxx	xxxx		xxxxx		xxxxx	xxxxx	xxxx		xxxxx		
Shrd StpDel:	xxxxx		30.6	xxxxx		xxxxx			25.1	xxxxx		xxxxx	xxxxx	xxxx		xxxxx		xxxxx	xxxxx	xxxx		xxxxx		
Shared LOS:	*		D	*		*			D	*		*	*	*		*		*	*	*		*		*
ApproachDel:			30.6						25.1				xxxxxx						xxxxxx					
ApproachLOS:			D						D				*						*					

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 William Moss/McDougald

Cycle (sec): 60 Critical Vol./Cap. (X): 0.268
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 20.4
Optimal Cycle: 50 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	90	240	30	10	120	70	40	140	30	30	160	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	240	30	10	120	70	40	140	30	30	160	30
Added Vol:	17	0	0	17	0	0	0	0	17	0	0	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	107	240	30	27	120	70	40	140	47	30	160	47
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	107	240	30	27	120	70	40	140	47	30	160	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	240	30	27	120	70	40	140	47	30	160	47
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	107	240	30	27	120	70	40	140	47	30	160	47
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.90	0.90	0.95	0.91	0.91	0.95	0.92	0.92
Lanes:	1.00	1.78	0.22	1.00	1.26	0.74	1.00	1.50	0.50	1.00	1.55	0.45
Final Sat.:	1805	3154	394	1805	2155	1257	1805	2600	873	1805	2695	792
Capacity Analysis Module:												
Vol/Sat:	0.06	0.08	0.08	0.01	0.06	0.06	0.02	0.05	0.05	0.02	0.06	0.06
Crit Moves:	****				****		****				****	
Green/Cycle:	0.21	0.24	0.24	0.17	0.20	0.20	0.12	0.19	0.19	0.13	0.21	0.21
Volume/Cap:	0.28	0.32	0.32	0.09	0.28	0.28	0.19	0.28	0.28	0.12	0.28	0.28
Delay/Veh:	20.3	19.0	19.0	21.2	20.7	20.7	24.4	20.9	20.9	23.1	20.1	20.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.3	19.0	19.0	21.2	20.7	20.7	24.4	20.9	20.9	23.1	20.1	20.1
HCM2kAvg:	2	2	2	0	2	2	1	2	2	1	2	2

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 William Moss/S. Manthey

Cycle (sec): 60 Critical Vol./Cap. (X): 0.539
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 15.4
Optimal Cycle: 46 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 0	0	0 0	0 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	130	180	0	0	150	140	130	0	70	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	180	0	0	150	140	130	0	70	0	0	0
Added Vol:	17	217	0	0	218	0	0	0	17	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	147	397	0	0	368	140	130	0	87	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	147	397	0	0	368	140	130	0	87	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	147	397	0	0	368	140	130	0	87	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	147	397	0	0	368	140	130	0	87	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.96	0.96	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.72	0.28	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	1900	0	0	1325	504	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.21	0.00	0.00	0.28	0.28	0.07	0.00	0.05	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.15	0.43	0.00	0.00	0.52	0.52	0.13	0.00	0.18	0.00	0.00	0.00
Volume/Cap:	0.54	0.49	0.00	0.00	0.54	0.54	0.54	0.00	0.30	0.00	0.00	0.00
Delay/Veh:	25.7	12.9	0.0	0.0	10.4	10.4	26.7	0.0	22.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.7	12.9	0.0	0.0	10.4	10.4	26.7	0.0	22.1	0.0	0.0	0.0
HCM2kAvg:	3	6	0	0	7	7	3	0	2	0	0	0

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8 McDougald/Henry Long

Cycle (sec): 100 Critical Vol./Cap. (X): 0.732
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 16.2
Optimal Cycle: 0 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 0	0	0 0	1 0	1	0 0	1! 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	100	460	0	0	370	130	60	0	90	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	100	460	0	0	370	130	60	0	90	0	0	0
Added Vol:	0	17	0	0	17	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	100	477	0	0	387	130	60	0	90	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	100	477	0	0	387	130	60	0	90	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	477	0	0	387	130	60	0	90	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	100	477	0	0	387	130	60	0	90	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	1.00	1.00	0.40	0.00	0.60	0.00	0.00	0.00
Final Sat.:	591	652	0	0	639	722	229	0	343	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.17	0.73	xxxx	xxxx	0.61	0.18	0.26	xxxx	0.26	xxxx	xxxx	xxxx
Crit Moves:		****			****		****					
Delay/Veh:	9.9	21.3	0.0	0.0	16.2	8.6	10.7	0.0	10.7	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.9	21.3	0.0	0.0	16.2	8.6	10.7	0.0	10.7	0.0	0.0	0.0
LOS by Move:	A	C	*	*	C	A	B	*	B	*	*	*
ApproachDel:		19.3			14.2		10.7			xxxxxx		
Delay Adj:		1.00			1.00		1.00			xxxxx		
ApprAdjDel:		19.3			14.2		10.7			xxxxxx		
LOS by Appr:		C			B		B			*		

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #9 Manthey/Henry Long

Cycle (sec): 100 Critical Vol./Cap. (X): 0.873
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 24.3
Optimal Cycle: 0 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	0 0	0	0 0	0 0	1	1 0	0 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	0	0	0	0	0	100	400	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	100	400	0	0	0	0	0
Added Vol:	0	0	0	0	0	235	234	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	335	634	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	335	634	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	335	634	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	0	0	335	634	0	0	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	0	0	0	0	0	705	726	0	0	0	0	0
Capacity Analysis Module:												
Vol/Sat:	xxxx	xxxx	xxxx	xxxx	xxxx	0.48	0.87	xxxx	xxxx	xxxx	xxxx	xxxx
Crit Moves:						****	****					
Delay/Veh:	0.0	0.0	0.0	0.0	0.0	11.8	30.9	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.0	0.0	11.8	30.9	0.0	0.0	0.0	0.0	0.0
LOS by Move:	*	*	*	*	*	B	D	*	*	*	*	*
ApproachDel:		xxxxxx			11.8			30.9			xxxxxx	
Delay Adj:		xxxxx			1.00			1.00			xxxxx	
ApprAdjDel:		xxxxxx			11.8			30.9			xxxxxx	
LOS by Appr:		*			B			D			*	

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 French Camp/Wolfe

Cycle (sec): 90 Critical Vol./Cap. (X): 0.841
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 32.3
Optimal Cycle: 92 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0 0 1			2 0 0 1		0	1 0 2 1		0	1 0 2 1		0
Volume Module:												
Base Vol:	40	160	70	220	20	20	10	220	10	20	610	770
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	160	70	220	20	20	10	220	10	20	610	770
Added Vol:	0	0	4	9	0	0	0	26	0	4	26	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	160	74	229	20	20	10	246	10	24	636	779
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	40	160	74	229	20	20	10	246	10	24	636	779
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	160	74	229	20	20	10	246	10	24	636	779
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	40	160	74	229	20	20	10	246	10	24	636	779
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.92	0.93	0.93	0.95	0.90	0.90	0.95	0.83	0.83
Lanes:	1.00	0.68	0.32	2.00	0.50	0.50	1.00	2.88	0.12	1.00	2.00	1.00
Final Sat.:	1805	1238	573	3502	879	879	1805	4954	201	1805	3171	1585
Capacity Analysis Module:												
Vol/Sat:	0.02	0.13	0.13	0.07	0.02	0.02	0.01	0.05	0.05	0.01	0.20	0.49
Crit Moves:		****		****			****					****
Green/Cycle:	0.09	0.14	0.14	0.08	0.13	0.13	0.08	0.36	0.36	0.25	0.53	0.53
Volume/Cap:	0.25	0.93	0.93	0.84	0.18	0.18	0.07	0.14	0.14	0.05	0.38	0.93
Delay/Veh:	39.0	76.7	76.7	61.2	35.4	35.4	38.7	19.7	19.7	25.7	12.6	30.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.0	76.7	76.7	61.2	35.4	35.4	38.7	19.7	19.7	25.7	12.6	30.3
HCM2kAvg:	1	10	10	6	1	1	0	2	2	1	5	25

Weston Ranch Towne Center EIR
Future 2025 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 French Camp/McDougald

Cycle (sec): 90 Critical Vol./Cap. (X): 0.679
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 18.1
Optimal Cycle: 55 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0 0 0			1 0 0 0		1	1 0 2 0		0	0 0 1 1		0
Volume Module:												
Base Vol:	0	0	0	160	0	10	20	490	0	0	1400	540
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	160	0	10	20	490	0	0	1400	540
Added Vol:	0	0	0	17	0	0	0	39	0	0	39	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	177	0	10	20	529	0	0	1439	557
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	177	0	10	20	529	0	0	1439	557
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	177	0	10	20	529	0	0	1439	557
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	177	0	10	20	529	0	0	1439	557
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	0.95	1.00	1.00	0.91	0.91
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.44	0.56
Final Sat.:	0	0	0	1805	0	1615	1805	3610	0	0	2493	965
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.10	0.00	0.01	0.01	0.15	0.00	0.00	0.58	0.58
Crit Moves:					****		****				****	
Green/Cycle:	0.00	0.00	0.00	0.11	0.00	0.11	0.08	0.49	0.00	0.00	0.67	0.67
Volume/Cap:	0.00	0.00	0.00	0.86	0.00	0.05	0.14	0.30	0.00	0.00	0.86	0.86
Delay/Veh:	0.0	0.0	0.0	66.9	0.0	35.6	39.2	13.7	0.0	0.0	14.6	14.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	66.9	0.0	35.6	39.2	13.7	0.0	0.0	14.6	14.6
HCM2kAvg:	0	0	0	8	0	0	1	4	0	0	24	24

CORSIM LEVEL OF SERVICE REPORT
Including Upstream Delays

Project: Weston Ranch Towne Center EIR **HCM:** 2000
Scenario: Year 2025 With Project **PHF:** 1
TOD: PM **# of Runs:** 10

Intersection: Manthey Road / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	160	159	99	12	49.3	D	--
	T	198	185	93	7	51.6	D	--
	R	180	194	108	14	7.9	A	--
	Subtotal	**538**	**538**	**100**	**--**	**35.2**	**D**	**--**
SB	L	809	802	99	8	41.6	D	--
	T	102	101	99	8	32.8	C	--
	R	24	30	125	5	25.1	C	--
	Subtotal	**935**	**932**	**100**	**--**	**40.1**	**D**	**--**
EB	L	22	21	95	4	57.8	E	--
	T	620	623	100	7	31.3	C	--
	R	70	68	97	8	30.4	C	--
	Subtotal	**712**	**712**	**100**	**--**	**32.0**	**C**	**--**
WB	L	110	96	87	12	56.6	E	--
	T	1596	1575	99	32	33.7	C	--
	R	946	936	99	18	14.4	B	--
	Subtotal	**2652**	**2607**	**98**	**--**	**27.6**	**C**	**--**
	Total	**4837**	**4789**	**99**	**--**	**31.6**	**C**	**--**

Intersection: I-5 SB Ramps / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
SB	L	860	870	101	21	32.2	C	--
	R	764	756	99	22	38.5	D	--
	Subtotal	**1624**	**1626**	**100**	**--**	**35.1**	**D**	**--**
EB	T	1101	1112	101	21	17.5	B	--
	R	507	505	100	20	10.0	A	--
	Subtotal	**1608**	**1617**	**101**	**--**	**15.2**	**B**	**--**
WB	T	100	1856	1856	38	24.2	C	--
	Subtotal	**100**	**1856**	**1856**	**--**	**24.2**	**C**	**--**
	Total	**3332**	**5099**	**153**	**--**	**24.8**	**C**	**--**

CORSIM LEVEL OF SERVICE REPORT
Including Upstream Delays

Project: Weston Ranch Towne Center EIR **HCM:** 2000
Scenario: Year 2025 With Project **PHF:** 1
TOD: PM **# of Runs:** 10

Intersection: I-5 NB Ramps / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	508	513	101	10	45.2	D	--
	R	180	173	96	10	4.6	A	--
	Subtotal	**688**	**686**	**100**	**--**	**35.0**	**D**	**--**
EB	T	100	1334	1334	21	8.6	A	--
	Subtotal	**100**	**1334**	**1334**	**--**	**8.6**	**A**	**--**
WB	T	4519	4450	98	41	8.5	A	--
	Subtotal	**4519**	**4450**	**98**	**--**	**8.5**	**A**	**--**
	Total	**5307**	**6471**	**122**	**--**	**11.4**	**B**	**--**

Intersection: Sperry Road / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	665	674	101	11	70.6	E	--
	T	10	7	70	2	37.3	D	--
	R	30	24	80	4	8.0	A	--
	Subtotal	**705**	**705**	**100**	**--**	**68.1**	**E**	**--**
SB	L	20	18	90	5	72.7	E	--
	T	20	22	110	5	71.6	E	--
	R	221	221	100	6	14.7	B	--
	Subtotal	**261**	**260**	**100**	**--**	**23.5**	**C**	**--**
EB	L	145	143	99	5	248.2	F	--
	T	724	731	101	14	16.6	B	--
	R	636	634	100	16	14.5	B	--
	Subtotal	**1505**	**1508**	**100**	**--**	**37.7**	**D**	**--**
WB	L	110	124	113	16	76.6	E	--
	T	3633	3567	98	54	50.8	D	--
	R	220	225	102	14	56.5	E	--
	Subtotal	**3963**	**3916**	**99**	**--**	**52.0**	**D**	**--**
	Total	**6434**	**6389**	**99**	**--**	**49.2**	**D**	**--**

Weston Ranch Towne Center EIR
Future 2025 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #16 Yettner/Manthey

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: C[17.8]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	0	1 0	1	0	0	1 0	0	0	1!	0 0	0	0	1!	0 0
Volume Module:																
Base Vol:	30	520		10	10	180		20	20	10		20	10	10		20
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	30	520		10	10	180		20	20	10		20	10	10		20
Added Vol:	0	60		0	0	60		0	0	0		0	0	0		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	30	580		10	10	240		20	20	10		20	10	10		20
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	30	580		10	10	240		20	20	10		20	10	10		20
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Final Vol.:	30	580		10	10	240		20	20	10		20	10	10		20
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx		7.1	6.5		6.2	7.1	6.5		6.2
FollowUpTim:	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx		3.5	4.0		3.3	3.5	4.0		3.3
Capacity Module:																
Cnflict Vol:	260	xxxx	xxxxx		590	xxxx	xxxxx		930	920		250	930	925		585
Potent Cap.:	1316	xxxx	xxxxx		995	xxxx	xxxxx		250	273		794	250	271		515
Move Cap.:	1316	xxxx	xxxxx		995	xxxx	xxxxx		227	264		794	230	262		515
Volume/Cap:	0.02	xxxx	xxxx		0.01	xxxx	xxxx		0.09	0.04		0.03	0.04	0.04		0.04
Level Of Service Module:																
Queue:	0.1	xxxx	xxxxx		0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxxx	xxxx		xxxxx
Stopped Del:	7.8	xxxx	xxxxx		8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxxx	xxxx		xxxxx
LOS by Move:	A	*	*		A	*	*	*	*	*		*	*	*		*
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -		RT	LT -	LTR -		RT
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	331		xxxxx	xxxx	332		xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	0.5		xxxxx	xxxxx	0.4		xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	17.8		xxxxx	xxxxx	17.3		xxxxx
Shared LOS:	*	*	*		*	*	*		*	C		*	*	C		*
ApproachDel:	xxxxxx				xxxxxx				17.8				17.3			
ApproachLOS:	*				*				C				C			

Weston Ranch Towne Center EIR
Future 2025 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #17 Mathews/S. Manthey

Cycle (sec): 100 Critical Vol./Cap. (X): 1.287
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 85.7
Optimal Cycle: 0 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10		10	7	10		10	7	10		10	7	10		10
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0	1	0	1	0 1
Volume Module:																
Base Vol:	10	40		30	100	40		70	40	720		20	40	280		100
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	10	40		30	100	40		70	40	720		20	40	280		100
Added Vol:	0	9		0	47	9		4	4	0		0	0	0		47
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	10	49		30	147	49		74	44	720		20	40	280		147
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	10	49		30	147	49		74	44	720		20	40	280		147
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	10	49		30	147	49		74	44	720		20	40	280		147
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Final Vol.:	10	49		30	147	49		74	44	720		20	40	280		147
Saturation Flow Module:																
Adjustment:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Lanes:	0.11	0.55		0.34	0.55	0.18		0.27	0.06	0.92		0.02	1.00	1.00		1.00
Final Sat.:	52	255		156	283	94		142	34	559		16	498	535		597
Capacity Analysis Module:																
Vol/Sat:	0.19	0.19		0.19	0.52	0.52		0.52	1.29	1.29		1.29	0.08	0.52		0.25
Crit Moves:	****				****				****					****		
Delay/Veh:	11.8	11.8		11.8	16.5	16.5		16.5	160.8	161		160.8	10.4	16.1		10.5
Delay Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:	11.8	11.8		11.8	16.5	16.5		16.5	160.8	161		160.8	10.4	16.1		10.5
LOS by Move:	B	B		B	C	C		C	F	F		F	B	C		B
ApproachDel:	11.8				16.5				160.8				13.9			
Delay Adj:	1.00				1.00				1.00				1.00			
ApprAdjDel:	11.8				16.5				160.8				13.9			
LOS by Appr:	B				C				F				B			

Weston Ranch Towne Center EIR
Future 2025 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #18 Mathews/I5 SB Ramps

Average Delay (sec/veh): 4.9 Worst Case Level Of Service: C[24.7]

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	1	0	1	0	0
Volume Module:																				
Base Vol:	0	0	0			120	0			170	0			730	120	30		250	0	
Growth Adj:	1.00	1.00	1.00			1.00	1.00			1.00	1.00			1.00	1.00	1.00		1.00	1.00	
Initial Bse:	0	0	0			120	0			170	0			730	120	30		250	0	
Added Vol:	0	0	0			0	0			0	0			9	39	0		47	0	
PasserByVol:	0	0	0			0	0			0	0			0	0	0		0	0	
Initial Fut:	0	0	0			120	0			170	0			739	159	30		297	0	
User Adj:	1.00	1.00	1.00			1.00	1.00			1.00	1.00			1.00	1.00	1.00		1.00	1.00	
PHF Adj:	1.00	1.00	1.00			1.00	1.00			1.00	1.00			1.00	1.00	1.00		1.00	1.00	
PHF Volume:	0	0	0			120	0			170	0			739	159	30		297	0	
Reduct Vol:	0	0	0			0	0			0	0			0	0	0		0	0	
Final Vol.:	0	0	0			120	0			170	0			739	159	30		297	0	
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			6.4	xxxx			6.2	xxxxx	xxxx	xxxxx			4.1	xxxx	xxxxx		
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	xxxx			3.3	xxxxx	xxxx	xxxxx			2.2	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			1176	xxxx			297	xxxx	xxxx	xxxxx			898	xxxx	xxxxx		
Potent Cap.:	xxxx	xxxx	xxxxx			214	xxxx			747	xxxx	xxxx	xxxxx			765	xxxx	xxxxx		
Move Cap.:	xxxx	xxxx	xxxxx			207	xxxx			747	xxxx	xxxx	xxxxx			765	xxxx	xxxxx		
Volume/Cap:	xxxx	xxxx	xxxx			0.58	xxxx			0.23	xxxx	xxxx	xxxx			0.04	xxxx	xxxx		
Level Of Service Module:																				
Queue:	xxxxx	xxxx	xxxxx			3.2	xxxx			0.9	xxxxx	xxxx	xxxxx			0.1	xxxx	xxxxx		
Stopped Del:	xxxxx	xxxx	xxxxx			43.9	xxxx			11.2	xxxxx	xxxx	xxxxx			9.9	xxxx	xxxxx		
LOS by Move:	*	*	*			E	*			B	*	*	*			A	*	*		
Movement:	LT -	LTR -	RT			LT -	LTR -	RT			LT -	LTR -	RT			LT -	LTR -	RT		
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd StpDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	*	*			*	*			*	*	*				*	*	*		
ApproachDel:	xxxxxx					24.7					xxxxxx					xxxxxx				
ApproachLOS:	*					C					*					*				

Weston Ranch Towne Center EIR
Future 2025 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #19 Mathews/I5 NB Ramps

Average Delay (sec/veh): 25.5 Worst Case Level Of Service: F[344.9]

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0
Volume Module:																				
Base Vol:	40		0	20		0		0		0	500	350		0		0		240	380	
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	40		0	20		0		0		0	500	350		0		0		240	380	
Added Vol:	39		0	0		0		0		0	0	9		0		0		9	0	
PasserByVol:	0		0	0		0		0		0	0	0		0		0		0	0	
Initial Fut:	79		0	20		0		0		0	500	359		0		0		249	380	
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Volume:	79		0	20		0		0		0	500	359		0		0		249	380	
Reduct Vol:	0		0	0		0		0		0	0	0		0		0		0	0	
Final Vol.:	79		0	20		0		0		0	500	359		0		0		249	380	
Critical Gap Module:																				
Critical Gp:	6.4	xxxx				6.2	xxxxx	xxxx	xxxxx			4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
FollowUpTim:	3.5	xxxx				3.3	xxxxx	xxxx	xxxxx			2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Capacity Module:																				
Cnflict Vol:	1798	xxxx				359	xxxx	xxxx	xxxxx			629	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Potent Cap.:	89	xxxx				690	xxxx	xxxx	xxxxx			963	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Move Cap.:	53	xxxx				690	xxxx	xxxx	xxxxx			963	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Volume/Cap:	1.50	xxxx				0.03	xxxx	xxxx	xxxx			0.52	xxxx	xxxx	xxxx	xxxx	xxxx			
Level Of Service Module:																				
Queue:	7.3	xxxx				0.1	xxxxx	xxxx	xxxxx			3.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Stopped Del:	429.6	xxxx				10.4	xxxxx	xxxx	xxxxx			12.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	F	*				B	*	*	*			B	*	*	*	*	*			
Movement:	LT -	LTR -	RT			LT -	LTR -	RT			LT -	LTR -	RT			LT -	LTR -	RT		
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd StpDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	*	*			*	*	*			*	*	*			*	*	*		
ApproachDel:	344.9					xxxxxx					xxxxxx					xxxxxx				
ApproachLOS:	F					*					*					*				

Weston Ranch Towne Center EIR
Future 2025 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #20 Howard/Wolfe

Average Delay (sec/veh): 3.3 Worst Case Level Of Service: C[19.4]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	1!	0 0	0	0	1!	0 0	1	0	0	1 0	1	0	0	1 0
Volume Module:																
Base Vol:	10	10	10		10	10	10		170	400	10		20	130	10	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	10	10	10		10	10	10		170	400	10		20	130	10	
Added Vol:	0	0	0		0	0	4		4	4	0		0	4	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	10	10	10		10	10	14		174	404	10		20	134	10	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	10	10	10		10	10	14		174	404	10		20	134	10	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Final Vol.:	10	10	10		10	10	14		174	404	10		20	134	10	
Critical Gap Module:																
Critical Gp:	7.1	6.5	6.2		7.1	6.5	6.2		4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3		3.5	4.0	3.3		2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	948	941	409		946	941	139		144	xxxx	xxxxx		414	xxxx	xxxxx	
Potent Cap.:	243	265	647		243	265	915		1451	xxxx	xxxxx		1156	xxxx	xxxxx	
Move Cap.:	207	229	647		208	229	915		1451	xxxx	xxxxx		1156	xxxx	xxxxx	
Volume/Cap:	0.05	0.04	0.02		0.05	0.04	0.02		0.12	xxxx	xxxx		0.02	xxxx	xxxx	
Level Of Service Module:																
Queue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.4	xxxx	xxxxx		0.1	xxxx	xxxxx	
Stopped Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		7.8	xxxx	xxxxx		8.2	xxxx	xxxxx	
LOS by Move:	*	*	*		*	*	*		A	*	*		A	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	280	xxxxx		xxxx	318	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.4	xxxxx		xxxxx	0.4	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd StpDel:	xxxxx	19.4	xxxxx		xxxxx	17.7	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	C	*		*	C	*		*	*	*		*	*	*	
ApproachDel:	19.4				17.7				xxxxxx				xxxxxx			
ApproachLOS:	C				C				*				*			

Weston Ranch Towne Center EIR
Future 2025 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 French Camp Road/Secondary Driveway

Cycle (sec): 120 Critical Vol./Cap. (X): 0.475
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 11.8
Optimal Cycle: 46 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0	0	0	0 0	1	0	0	0 1	1	0	3	0 0	0	0	2	1 0
Volume Module:																
Base Vol:	0	0	0		0	0	0		0	650	0		0	1720	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		0	0	0		0	650	0		0	1720	0	
Added Vol:	0	0	0		72	0	36		36	20	0		0	20	72	
Pass-by:	0	0	0		14	0	29		14	-14	0		0	-29	29	
Initial Fut:	0	0	0		86	0	65		50	656	0		0	1711	101	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	0	0		86	0	65		50	656	0		0	1711	101	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		86	0	65		50	656	0		0	1711	101	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	0	0	0		86	0	65		50	656	0		0	1711	101	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.95	1.00	0.85		0.95	0.91	1.00		1.00	0.90	0.90	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	3.00	0.00		0.00	2.83	0.17	
Final Sat.:	0	0	0		1805	0	1615		1805	5187	0		0	4859	287	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.05	0.00	0.04		0.03	0.13	0.00		0.00	0.35	0.35	
Crit Moves:					****				****					****		
Green/Cycle:	0.00	0.00	0.00		0.10	0.00	0.11		0.06	0.55	0.00		0.00	0.74	0.74	
Volume/Cap:	0.00	0.00	0.00		0.48	0.00	0.37		0.47	0.23	0.00		0.00	0.48	0.48	
Delay/Veh:	0.0	0.0	0.0		53.0	0.0	51.1		58.1	14.1	0.0		0.0	6.3	6.3	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	0.0		53.0	0.0	51.1		58.1	14.1	0.0		0.0	6.3	6.3	
HCM2kAvg:	0	0	0		4	0	3		3	4	0		0	9	9	

2035

Weston Ranch Towne Center EIR
Future 2035 Without Project
AM Peak Hour

Scenario Report

Scenario:	Cumulative w/o Proj AM
Command:	Cumulative w/o Proj AM
Volume:	Cumulative AM WO
Geometry:	Cumulative
Impact Fee:	Default Impact Fee
Trip Generation:	Project AM
Trip Distribution:	Peak Hour
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Weston Ranch Towne Center EIR
Future 2035 Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Carolyn Weston/McDougald

Cycle (sec): 120 Critical Vol./Cap. (X): 0.839
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 41.1
Optimal Cycle: 104 Level Of Service: D

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Protected						Protected						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	7	10			10		7	10			10		7	10			10		7	10			10	
Lanes:	1	0	1	0	1		1	0	0	1	0		1	0	1	1	0		1	0	1	1	0	
Volume Module:																								
Base Vol:	180	70			260		90	70			20		20	1050			120		350	810			60	
Growth Adj:	1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00	
Initial Bse:	180	70			260		90	70			20		20	1050			120		350	810			60	
Added Vol:	-4	0			-2		0	0			0		0	-7			-7		-3	-4			0	
PasserByVol:	0	0			0		0	0			0		0	0			0		0	0			0	
Initial Fut:	176	70			258		90	70			20		20	1043			113		347	806			60	
User Adj:	1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00	
PHF Adj:	1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00	
PHF Volume:	176	70			258		90	70			20		20	1043			113		347	806			60	
Reduct Vol:	0	0			0		0	0			0		0	0			0		0	0			0	
Reduced Vol:	176	70			258		90	70			20		20	1043			113		347	806			60	
PCE Adj:	1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00	
MLF Adj:	1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00	
Final Vol.:	176	70			258		90	70			20		20	1043			113		347	806			60	
Saturation Flow Module:																								
Sat/Lane:	1900	1900			1900		1900	1900			1900		1900	1900			1900		1900	1900			1900	
Adjustment:	0.95	1.00			0.85		0.95	0.97			0.97		0.95	0.94			0.94		0.95	0.94			0.94	
Lanes:	1.00	1.00			1.00		1.00	0.78			0.22		1.00	1.80			0.20		1.00	1.86			0.14	
Final Sat.:	1805	1900			1615		1805	1429			408		1805	3208			348		1805	3326			248	
Capacity Analysis Module:																								
Vol/Sat:	0.10	0.04			0.16		0.05	0.05			0.05		0.01	0.33			0.33		0.19	0.24			0.24	
Crit Moves:					****		****							****					****					
Green/Cycle:	0.13	0.19			0.19		0.06	0.12			0.12		0.12	0.39			0.39		0.23	0.50			0.50	
Volume/Cap:	0.72	0.19			0.84		0.84	0.43			0.43		0.09	0.84			0.84		0.84	0.49			0.49	
Delay/Veh:	60.0	41.1			64.9		97.1	50.8			50.8		47.2	38.1			38.1		58.2	20.2			20.2	
User DelAdj:	1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00	
AdjDel/Veh:	60.0	41.1			64.9		97.1	50.8			50.8		47.2	38.1			38.1		58.2	20.2			20.2	
HCM2kAvg:	8	2			12		6	3			3		1	22			22		15	11			11	

Weston Ranch Towne Center EIR
Future 2035 Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Carolyn Weston/S. Manthey

Cycle (sec):	120	Critical Vol./Cap. (X):	0.675
Loss Time (sec):	16 (Y+R = 4 sec)	Average Delay (sec/veh):	31.2
Optimal Cycle:	68	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Ovl				Include				Include			
Min. Green:	7		10	10	7		10	10	7		10	10	7		10	10
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	1	1 0	2	0	1	1 0
Volume Module:																
Base Vol:	150		80	340	80		70	80	100		1190	110	500		990	100
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	150		80	340	80		70	80	100		1190	110	500		990	100
Added Vol:	-4		0	-57	0		0	0	0		-2	-7	-70		-3	0
PasserByVol:	0		0	0	0		0	0	0		0	0	0		0	0
Initial Fut:	146		80	283	80		70	80	100		1188	103	430		987	100
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	146		80	283	80		70	80	100		1188	103	430		987	100
Reduct Vol:	0		0	0	0		0	0	0		0	0	0		0	0
Reduced Vol:	146		80	283	80		70	80	100		1188	103	430		987	100
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Final Vol.:	146		80	283	80		70	80	100		1188	103	430		987	100
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.95	0.95		0.85	0.95	0.95		0.85	0.95	0.94		0.94	0.92	0.94		0.94
Lanes:	1.00	2.00		1.00	1.00	2.00		1.00	1.00	1.84		0.16	2.00	1.82		0.18
Final Sat.:	1805	3610		1615	1805	3610		1615	1805	3282		285	3502	3232		327
Capacity Analysis Module:																
Vol/Sat:	0.08	0.02		0.18	0.04	0.02		0.05	0.06	0.36		0.36	0.12	0.31		0.31
Crit Moves:	****					****				****			****			
Green/Cycle:	0.11	0.11		0.28	0.08	0.08		0.19	0.11	0.50		0.50	0.17	0.56		0.56
Volume/Cap:	0.72	0.19		0.61	0.55	0.23		0.26	0.51	0.72		0.72	0.72	0.54		0.54
Delay/Veh:	63.5	48.3		39.7	57.6	51.8		41.8	52.9	24.9		24.9	51.4	16.8		16.8
User DelAdj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:	63.5	48.3		39.7	57.6	51.8		41.8	52.9	24.9		24.9	51.4	16.8		16.8
HCM2kAvg:	7		1	10	4		1	3	4		19	19	9		13	13

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95						1.00	0.88
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		5085	1583	1770	3539						1770	2787
Flt Permitted		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (perm)		5085	1583	1770	3539						1770	2787
Volume (vph)	0	1252	300	80	307	0	0	0	0	480	0	1211
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1252	300	80	307	0	0	0	0	480	0	1211
RTOR Reduction (vph)	0	0	177	0	0	0	0	0	0	0	0	543
Lane Group Flow (vph)	0	1252	123	80	307	0	0	0	0	0	480	668
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		32.9	32.9	6.0	42.9						29.1	29.1
Effective Green, g (s)		32.9	32.9	6.0	42.9						29.1	29.1
Actuated g/C Ratio		0.41	0.41	0.08	0.54						0.36	0.36
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)		2091	651	133	1898						644	1014
v/s Ratio Prot		c0.25		c0.05	0.09							
v/s Ratio Perm			0.08								0.27	0.24
v/c Ratio		0.60	0.19	0.60	0.16						0.75	0.66
Uniform Delay, d1		18.4	15.0	35.8	9.4						22.2	21.3
Progression Factor		1.00	1.00	0.56	1.02						1.00	1.00
Incremental Delay, d2		1.3	0.6	6.9	0.2						4.7	1.6
Delay (s)		19.7	15.7	27.2	9.8						26.9	22.9
Level of Service		B	B	C	A						C	C
Approach Delay (s)		18.9			13.4			0.0			24.0	
Approach LOS		B			B			A			C	

Intersection Summary			
HCM Average Control Delay	20.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.7%	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)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	0.97	1.00			0.95			1.00	1.00			
Frt	1.00	1.00			0.92			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (prot)	3433	1863			3246			1770	1583			
Flt Permitted	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (perm)	3433	1863			3246			1770	1583			
Volume (vph)	1040	692	0	0	227	280	160	0	80	0	0	0
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1040	692	0	0	227	280	160	0	80	0	0	0
RTOR Reduction (vph)	0	0	0	0	189	0	0	0	68	0	0	0
Lane Group Flow (vph)	1040	692	0	0	318	0	0	160	12	0	0	0
Turn Type	Prot						Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	29.7	59.8			26.1			12.2	12.2			
Effective Green, g (s)	29.7	59.8			26.1			12.2	12.2			
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)	1275	1393			1059			270	241			
v/s Ratio Prot	c0.30	c0.37			0.10							
v/s Ratio Perm								0.09	0.01			
v/c Ratio	0.82	0.50			0.30			0.59	0.05			
Uniform Delay, d1	22.7	4.1			20.1			31.6	29.0			
Progression Factor	0.62	0.59			1.00			1.00	1.00			
Incremental Delay, d2	3.4	1.0			0.7			3.5	0.1			
Delay (s)	17.4	3.4			20.9			35.0	29.0			
Level of Service	B	A			C			D	C			
Approach Delay (s)		11.8			20.9			33.0			0.0	
Approach LOS		B			C			C			A	

Intersection Summary			
HCM Average Control Delay	15.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	94.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Weston Ranch Towne Center EIR
Future 2035 Without Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Downing/Turnpike

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	1!	0	0		0	0	1!	0	0		1	0	0	1	0		1	0	0	1	0	
Volume Module:																								
Base Vol:	110	320		60			80	100		140			150	390		240			150	270		70		
Growth Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
Initial Bse:	110	320		60			80	100		140			150	390		240			150	270		70		
Added Vol:	0	0		0			0	0		0			0	-8		0			0	-13		0		
PasserByVol:	0	0		0			0	0		0			0	0		0			0	0		0		
Initial Fut:	110	320		60			80	100		140			150	382		240			150	257		70		
User Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
PHF Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
PHF Volume:	110	320		60			80	100		140			150	382		240			150	257		70		
Reduct Vol:	0	0		0			0	0		0			0	0		0			0	0		0		
Final Vol.:	110	320		60			80	100		140			150	382		240			150	257		70		
Critical Gap Module:																								
Critical Gp:	7.1	6.5		6.2			7.1	6.5		6.2			4.1	xxxx		xxxxx			4.1	xxxx		xxxxx		
FollowUpTim:	3.5	4.0		3.3			3.5	4.0		3.3			2.2	xxxx		xxxxx			2.2	xxxx		xxxxx		
Capacity Module:																								
Cnflict Vol:	1514	1429		502			1584	1514		292			327	xxxx		xxxxx			622	xxxx		xxxxx		
Potent Cap.:	99	136		573			89	121		752			1244	xxxx		xxxxx			969	xxxx		xxxxx		
Move Cap.:	0	101		573			0	90		752			1244	xxxx		xxxxx			969	xxxx		xxxxx		
Volume/Cap:	xxxx	3.16		0.10			xxxx	1.11		0.19			0.12	xxxx		xxxx			0.15	xxxx		xxxx		
Level Of Service Module:																								
Queue:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			0.4	xxxx		xxxxx			0.5	xxxx		xxxxx		
Stopped Del:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			8.3	xxxx		xxxxx			9.4	xxxx		xxxxx		
LOS by Move:	*	*		*			*	*		*			A	*		*			A	*		*		
Movement:	LT -	LTR -		RT			LT -	LTR -		RT			LT -	LTR -		RT			LT -	LTR -		RT		
Shared Cap.:	xxxx	0		xxxxx			xxxx	0		xxxxx			xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx		
SharedQueue:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
Shrd StpDel:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
Shared LOS:	*	*		*			*	*		*			*	*		*			*	*		*		
ApproachDel:	xxxxxx						xxxxxx						xxxxxx						xxxxxx					
ApproachLOS:	F						F						*						*					

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 William Moss/McDougald

Cycle (sec): 60 | Critical Vol./Cap. (X): 0.643
Loss Time (sec): 16 (Y+R = 4 sec) | Average Delay (sec/veh): 25.3
Optimal Cycle: 54 | Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:		Include				Include				Include				Include		
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	1 1	0		1 0	1 1	0		1 0	1 1	0		1 0	1 1	0	
Volume Module:																
Base Vol:	60	220	120		100	390	160		350	200	60		110	160	140	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	60	220	120		100	390	160		350	200	60		110	160	140	
Added Vol:	-4	-2	0		-7	-3	0		0	0	-7		0	0	-4	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	56	218	120		93	387	160		350	200	53		110	160	136	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	56	218	120		93	387	160		350	200	53		110	160	136	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	56	218	120		93	387	160		350	200	53		110	160	136	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	56	218	120		93	387	160		350	200	53		110	160	136	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.90	0.90		0.95	0.91	0.91		0.95	0.92	0.92		0.95	0.88	0.88	
Lanes:	1.00	1.29	0.71		1.00	1.41	0.59		1.00	1.58	0.42		1.00	1.08	0.92	
Final Sat.:	1805	2205	1214		1805	2442	1009		1805	2765	733		1805	1817	1544	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.10	0.10		0.05	0.16	0.16		0.19	0.07	0.07		0.06	0.09	0.09	
Crit Moves:	****					****			****					****		
Green/Cycle:	0.12	0.19	0.19		0.13	0.20	0.20		0.25	0.24	0.24		0.17	0.17	0.17	
Volume/Cap:	0.27	0.53	0.53		0.39	0.78	0.78		0.78	0.30	0.30		0.36	0.53	0.53	
Delay/Veh:	24.8	22.8	22.8		24.9	28.4	28.4		29.8	18.7	18.7		22.7	23.8	23.8	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	24.8	22.8	22.8		24.9	28.4	28.4		29.8	18.7	18.7		22.7	23.8	23.8	
HCM2kAvg:	1	4	4		2	7	7		9	2	2		2	3	3	

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 William Moss/S. Manthey

Cycle (sec): 60 | Critical Vol./Cap. (X): 0.397
Loss Time (sec): 12 (Y+R = 4 sec) | Average Delay (sec/veh): 13.4
Optimal Cycle: 46 | Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Permitted				Protected				Protected			
Rights:		Include				Include				Include				Include		
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	2 0	0		0 0	1 1	0		1 0	0 0	1		0 0	0 0	0	
Volume Module:																
Base Vol:	80	360	0		0	610	70		190	0	130		0	0	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	80	360	0		0	610	70		190	0	130		0	0	0	
Added Vol:	-4	-61	0		0	-76	0		0	0	-7		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	76	299	0		0	534	70		190	0	123		0	0	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	76	299	0		0	534	70		190	0	123		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	76	299	0		0	534	70		190	0	123		0	0	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	76	299	0		0	534	70		190	0	123		0	0	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	1.00		1.00	0.93	0.93		0.95	1.00	0.85		1.00	1.00	1.00	
Lanes:	1.00	2.00	0.00		0.00	1.77	0.23		1.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	1805	3610	0		0	3137	411		1805	0	1615		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.08	0.00		0.00	0.17	0.17		0.11	0.00	0.08		0.00	0.00	0.00	
Crit Moves:	****					****			****							
Green/Cycle:	0.12	0.54	0.00		0.00	0.42	0.42		0.26	0.00	0.25		0.00	0.00	0.00	
Volume/Cap:	0.36	0.15	0.00		0.00	0.40	0.40		0.40	0.00	0.30		0.00	0.00	0.00	
Delay/Veh:	25.5	7.0	0.0		0.0	12.2	12.2		18.9	0.0	18.6		0.0	0.0	0.0	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	25.5	7.0	0.0		0.0	12.2	12.2		18.9	0.0	18.6		0.0	0.0	0.0	
HCM2kAvg:	2	1	0		0	4	4		3	0	2		0	0	0	

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8 McDougald/Henry Long

Cycle (sec): 100 | Critical Vol./Cap. (X): 0.371
Loss Time (sec): 0 (Y+R = 4 sec) | Average Delay (sec/veh): 9.6
Optimal Cycle: 0 | Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	1! 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	90	110	0	0	160	190	140	0	120	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	110	0	0	160	190	140	0	120	0	0	0
Added Vol:	0	-6	0	0	-9	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	90	104	0	0	151	190	140	0	120	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	104	0	0	151	190	140	0	120	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	104	0	0	151	190	140	0	120	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	90	104	0	0	151	190	140	0	120	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.00	1.00	0.54	0.00	0.46	0.00	0.00	0.00
Final Sat.:	579	1258	0	0	649	744	378	0	324	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.16	0.08	xxxx	xxxx	0.23	0.26	0.37	xxxx	0.37	xxxx	xxxx	xxxx
Crit Moves:	****					****	****					
Delay/Veh:	9.7	8.7	0.0	0.0	9.6	8.9	10.6	0.0	10.6	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.7	8.7	0.0	0.0	9.6	8.9	10.6	0.0	10.6	0.0	0.0	0.0
LOS by Move:	A	A	*	*	A	A	B	*	B	*	*	*
ApproachDel:	9.2			9.2			10.6			xxxxxx		
Delay Adj:	1.00			1.00			1.00			xxxxx		
ApprAdjDel:	9.2			9.2			10.6			xxxxxx		
LOS by Appr:	A			A			B			*		

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Manthey/Henry Long

Average Delay (sec/veh): 2.4 | Worst Case Level Of Service: B[10.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 0	0	0 0	0 0	1	1 0	0 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	0	0	0	0	0	670	250	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	670	250	0	0	0	0	0
Added Vol:	0	0	0	0	0	-83	-65	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	587	185	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	587	185	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	0	0	587	185	0	0	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	900	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	900	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.21	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			10.0			xxxxxx		
ApproachLOS:	*			*			B			*		

Weston Ranch Towne Center EIR
Future 2035 Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 French Camp/Wolfe

Cycle (sec): 90 | Critical Vol./Cap. (X): 0.722
Loss Time (sec): 16 (Y+R = 4 sec) | Average Delay (sec/veh): 33.0
Optimal Cycle: 70 | Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	60	660	70	380	570	90	10	730	190	30	570	140
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	60	660	70	380	570	90	10	730	190	30	570	140
Added Vol:	0	0	-25	-7	0	0	0	-7	0	-16	-4	-4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	660	45	373	570	90	10	723	190	14	566	136
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	660	45	373	570	90	10	723	190	14	566	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	660	45	373	570	90	10	723	190	14	566	136
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	60	660	45	373	570	90	10	723	190	14	566	136
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.93	0.93	0.95	0.88	0.88	0.95	0.88	0.88
Lanes:	1.00	1.87	0.13	1.00	1.73	0.27	1.00	2.38	0.62	1.00	2.42	0.58
Final Sat.:	1805	3346	228	1805	3055	482	1805	3980	1046	1805	4061	976
Capacity Analysis Module:												
Vol/Sat:	0.03	0.20	0.20	0.21	0.19	0.19	0.01	0.18	0.18	0.01	0.14	0.14
Crit Moves:		****		****				****		****		
Green/Cycle:	0.15	0.25	0.25	0.26	0.36	0.36	0.11	0.23	0.23	0.08	0.20	0.46
Volume/Cap:	0.22	0.79	0.79	0.79	0.51	0.51	0.05	0.79	0.79	0.10	0.70	0.30
Delay/Veh:	34.0	36.1	36.1	39.3	22.9	22.9	35.9	36.2	36.2	38.9	35.9	15.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.0	36.1	36.1	39.3	22.9	22.9	35.9	36.2	36.2	38.9	35.9	15.3
HCM2kAvg:	2	11	11	12	7	7	0	10	10	0	7	4

Weston Ranch Towne Center EIR
Future 2035 Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 French Camp/McDougald

Cycle (sec): 90 | Critical Vol./Cap. (X): 0.666
Loss Time (sec): 12 (Y+R = 4 sec) | Average Delay (sec/veh): 26.0
Optimal Cycle: 54 | Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	0 0	0	1 0	0 0	1	1 0	3 0	0	0 0	2 1	0
Volume Module:												
Base Vol:	0	0	0	620	0	60	160	1020	0	0	680	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	620	0	60	160	1020	0	0	680	110
Added Vol:	0	0	0	-9	0	0	0	-38	0	0	-24	-6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	611	0	60	160	982	0	0	656	104
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	611	0	60	160	982	0	0	656	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	611	0	60	160	982	0	0	656	104
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	611	0	60	160	982	0	0	656	104
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	0.91	1.00	1.00	0.89	0.89
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	2.59	0.41
Final Sat.:	0	0	0	1805	0	1615	1805	5187	0	0	4383	695
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.34	0.00	0.04	0.09	0.19	0.00	0.00	0.15	0.15
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.51	0.00	0.51	0.13	0.36	0.00	0.00	0.22	0.22
Volume/Cap:	0.00	0.00	0.00	0.67	0.00	0.07	0.67	0.53	0.00	0.00	0.67	0.67
Delay/Veh:	0.0	0.0	0.0	18.3	0.0	11.3	44.0	23.2	0.0	0.0	33.3	33.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	18.3	0.0	11.3	44.0	23.2	0.0	0.0	33.3	33.3
HCM2kAvg:	0	0	0	14	0	1	6	8	0	0	8	8

CORSIM LEVEL OF SERVICE REPORT
Including Upstream Delays

Project: Weston Ranch Towne Center EIR **HCM:** 2000
Scenario: Year 2035 No Project **PHF:** 1
TOD: AM **# of Runs:** 10

Intersection: Manthey Road / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	70	70	100	0	51.3	D	--
	T	37	35	95	0	49.0	D	--
	R	210	208	99	1	13.2	B	--
	Subtotal	**317**	**313**	**99**	**--**	**25.7**	**C**	**--**
SB	L	521	531	102	2	43.6	D	--
	T	300	284	95	1	37.0	D	--
	R	19	16	84	0	28.0	C	--
	Subtotal	**840**	**832**	**99**	**--**	**41.0**	**D**	**--**
EB	L	193	170	88	1	47.7	D	--
	T	1307	1343	103	2	24.0	C	--
	R	80	80	100	0	25.5	C	--
	Subtotal	**1580**	**1592**	**101**	**--**	**26.6**	**C**	**--**
WB	L	300	295	98	2	48.2	D	--
	T	765	755	99	4	18.3	B	--
	R	92	105	114	1	5.9	A	--
	Subtotal	**1157**	**1155**	**100**	**--**	**24.8**	**C**	**--**
	Total	**3894**	**3892**	**100**	**--**	**29.1**	**C**	**--**

Intersection: I-5 SB Ramps / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
SB	L	1430	1408	98	1	31.0	C	--
	R	388	377	97	0	30.5	C	--
	Subtotal	**1818**	**1785**	**98**	**--**	**30.9**	**C**	**--**
EB	T	1249	1252	100	5	19.2	B	--
	R	789	843	107	2	16.7	B	--
	Subtotal	**2038**	**2095**	**103**	**--**	**18.2**	**B**	**--**
WB	T	769	779	101	2	17.9	B	--
	Subtotal	**769**	**779**	**101**	**--**	**17.9**	**B**	**--**
	Total	**4625**	**4658**	**101**	**--**	**23.0**	**C**	**--**

CORSIM LEVEL OF SERVICE REPORT
Including Upstream Delays

Project: Weston Ranch Towne Center EIR **HCM:** 2000
Scenario: Year 2035 No Project **PHF:** 1
TOD: AM **# of Runs:** 10

Intersection: I-5 NB Ramps / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	151	147	97	0	24.3	C	--
	R	1120	1131	101	1	38.4	D	--
	Subtotal	**1271**	**1279**	**101**	**--**	**36.8**	**D**	**--**
EB	T	1850	1869	101	1	23.9	C	--
	Subtotal	**1850**	**1869**	**101**	**--**	**23.9**	**C**	**--**
WB	T	3118	3154	101	7	19.3	B	--
	Subtotal	**3118**	**3154**	**101**	**--**	**19.3**	**B**	**--**
	Total	**6239**	**6302**	**101**	**--**	**24.2**	**C**	**--**

Intersection: Sperry Road / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	817	836	102	1	46.1	D	--
	T	80	63	79	0	38.8	D	--
	R	60	55	92	0	20.9	C	--
	Subtotal	**957**	**954**	**100**	**--**	**44.1**	**D**	**--**
SB	L	80	82	103	0	44.7	D	--
	T	70	61	87	0	52.3	D	--
	R	547	545	100	1	31.2	C	--
	Subtotal	**697**	**688**	**99**	**--**	**34.7**	**C**	**--**
EB	L	342	350	102	3	55.1	E	--
	T	2310	2361	102	5	21.5	C	--
	R	318	319	100	1	6.7	A	--
	Subtotal	**2970**	**3030**	**102**	**--**	**23.8**	**C**	**--**
WB	L	180	175	97	0	52.9	D	--
	T	1754	1763	101	1	41.3	D	--
	R	30	44	147	0	11.4	B	--
	Subtotal	**1964**	**1982**	**101**	**--**	**41.7**	**D**	**--**
	Total	**6588**	**6654**	**101**	**--**	**33.2**	**C**	**--**

Weston Ranch Towne Center EIR
Future 2035 Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Yettner/Manthey

Cycle (sec):	60	Critical Vol./Cap. (X):	0.497
Loss Time (sec):	16 (Y+R = 4 sec)	Average Delay (sec/veh):	19.9
Optimal Cycle:	50	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1	0	1	1 0	1	0	1	1 0	1	0	0	1 0	1	0	0	1 0
Volume Module:																
Base Vol:	60	250	50		50	440	230		110	50	60		50	100	50	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	60	250	50		50	440	230		110	50	60		50	100	50	
Added Vol:	0	-43	0		0	-30	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	60	207	50		50	410	230		110	50	60		50	100	50	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	60	207	50		50	410	230		110	50	60		50	100	50	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	60	207	50		50	410	230		110	50	60		50	100	50	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	60	207	50		50	410	230		110	50	60		50	100	50	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.92	0.92		0.95	0.90	0.90		0.95	0.92	0.92		0.95	0.95	0.95	
Lanes:	1.00	1.61	0.39		1.00	1.28	0.72		1.00	0.45	0.55		1.00	0.67	0.33	
Final Sat.:	1805	2823	682		1805	2188	1227		1805	793	951		1805	1203	602	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.07	0.07		0.03	0.19	0.19		0.06	0.06	0.06		0.03	0.08	0.08	
Crit Moves:	****					****			****					****		
Green/Cycle:	0.12	0.26	0.26		0.19	0.33	0.33		0.12	0.17	0.17		0.12	0.17	0.17	
Volume/Cap:	0.28	0.28	0.28		0.15	0.56	0.56		0.52	0.38	0.38		0.24	0.50	0.50	
Delay/Veh:	25.0	17.7	17.7		20.7	17.1	17.1		27.3	23.1	23.1		24.7	24.0	24.0	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	25.0	17.7	17.7		20.7	17.1	17.1		27.3	23.1	23.1		24.7	24.0	24.0	
HCM2kAvg:	1	2	2		1	6	6		3	2	2		1	3	3	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.86		1.00	0.86	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.94		1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	6386		1770	6408	1583	1770	3333		1770	3233	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	6386		1770	6408	1583	1770	3333		1770	3233	
Volume (vph)	118	2180	50	80	1750	125	90	267	170	118	58	79
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	118	2180	50	80	1750	125	90	267	170	118	58	79
RTOR Reduction (vph)	0	2	0	0	0	59	0	99	0	0	74	0
Lane Group Flow (vph)	118	2228	0	80	1750	66	90	338	0	118	63	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)	12.4	67.8		8.0	63.4	63.4	20.6	16.5		11.7	7.6	
Effective Green, g (s)	12.4	67.8		8.0	63.4	63.4	20.6	16.5		11.7	7.6	
Actuated g/C Ratio	0.10	0.56		0.07	0.53	0.53	0.17	0.14		0.10	0.06	
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)	183	3608		118	3386	836	304	458		173	205	
v/s Ratio Prot	0.07	c0.35		0.05	c0.27		0.05	c0.10		c0.07	0.02	
v/s Ratio Perm						0.04						
v/c Ratio	0.64	0.62		0.68	0.52	0.08	0.30	0.74		0.68	0.31	
Uniform Delay, d1	51.7	17.4		54.7	18.4	13.9	43.4	49.7		52.4	53.7	
Progression Factor	1.00	1.00		0.80	0.73	0.68	1.00	1.00		1.00	1.00	
Incremental Delay, d2	7.6	0.8		13.2	0.5	0.2	0.5	6.1		10.6	0.9	
Delay (s)	59.3	18.2		57.0	13.9	9.6	43.9	55.8		62.9	54.5	
Level of Service	E	B		E	B	A	D	E		E	D	
Approach Delay (s)		20.3			15.4			53.8			58.4	
Approach LOS		C			B			D			E	

Intersection Summary			
HCM Average Control Delay	23.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
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)		4.0	4.0	4.0	4.0					4.0		4.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.97		0.88
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		5085	1583	1770	3539					3433		2787
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		5085	1583	1770	3539					3433		2787
Volume (vph)	0	2058	410	400	1495	0	0	0	0	400	0	460
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	2058	410	400	1495	0	0	0	0	400	0	460
RTOR Reduction (vph)	0	0	177	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	2058	233	400	1495	0	0	0	0	400	0	460
Turn Type			Perm	Prot						Prot		Free
Protected Phases		4		3	8					1		
Permitted Phases			4									Free
Actuated Green, G (s)		56.9	56.9	34.0	94.9					17.1		120.0
Effective Green, g (s)		56.9	56.9	34.0	94.9					17.1		120.0
Actuated g/C Ratio		0.47	0.47	0.28	0.79					0.14		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)		2411	751	502	2799					489		2787
v/s Ratio Prot		c0.40		c0.23	0.42					c0.12		
v/s Ratio Perm			0.15									0.17
v/c Ratio		0.85	0.31	0.80	0.53					0.82		0.17
Uniform Delay, d1		27.9	19.5	39.8	4.5					49.9		0.0
Progression Factor		0.46	0.05	0.66	1.07					1.00		1.00
Incremental Delay, d2		3.3	0.9	0.8	0.1					10.2		0.1
Delay (s)		16.3	1.8	27.2	4.9					60.2		0.1
Level of Service		B	A	C	A					E		A
Approach Delay (s)		13.9			9.6			0.0			28.1	
Approach LOS		B			A			A			C	

Intersection Summary			
HCM Average Control Delay	14.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	106.7%	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)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	0.97	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)	3433	3539			3539	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	3539			3539	1583	3433		1583			
Volume (vph)	1330	1128	0	0	1202	340	694	0	840	0	0	0
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1330	1128	0	0	1202	340	694	0	840	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	178	0	0	0	0	0	0
Lane Group Flow (vph)	1330	1128	0	0	1202	162	694	0	840	0	0	0
Turn Type	Prot					Perm	Prot		Free			
Protected Phases	7	4			8		5					
Permitted Phases						8			Free			
Actuated Green, G (s)	45.0	88.0			39.0	39.0	24.0		120.0			
Effective Green, g (s)	45.0	88.0			39.0	39.0	24.0		120.0			
Actuated g/C Ratio	0.38	0.73			0.32	0.32	0.20		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)	1287	2595			1150	514	687		1583			
v/s Ratio Prot	c0.39	0.32			c0.34		c0.20					
v/s Ratio Perm						0.10			0.53			
v/c Ratio	1.03	0.43			1.05	0.32	1.01		0.53			
Uniform Delay, d1	37.5	6.3			40.5	30.5	48.0		0.0			
Progression Factor	0.85	0.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	27.2	0.3			39.2	1.6	36.9		1.3			
Delay (s)	59.3	0.3			79.7	32.1	84.9		1.3			
Level of Service	E	A			E	C	F		A			
Approach Delay (s)		32.2			69.2			39.1			0.0	
Approach LOS		C			E			D			A	

Intersection Summary			
HCM Average Control Delay	44.4	HCM Level of Service	D
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	106.7%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Weston Ranch Towne Center EIR
Future 2035 Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #20 Howard/Wolfe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.937
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 44.0
Optimal Cycle: 120 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	60	220	870	100	300	70	50	390	60	390	290	70
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	60	220	870	100	300	70	50	390	60	390	290	70
Added Vol:	0	0	0	0	0	-1	-2	-2	0	0	-1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	220	870	100	300	69	48	388	60	390	289	70
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	220	870	100	300	69	48	388	60	390	289	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	220	870	100	300	69	48	388	60	390	289	70
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	60	220	870	100	300	69	48	388	60	390	289	70
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.95	0.93	0.93	0.95	0.92	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.73	0.27	1.00	1.61	0.39
Final Sat.:	1805	3610	1615	1805	3610	1615	1805	3064	474	1805	2822	683
Capacity Analysis Module:												
Vol/Sat:	0.03	0.06	0.54	0.06	0.08	0.04	0.03	0.13	0.13	0.22	0.10	0.10
Crit Moves:			****	****				****		****		
Green/Cycle:	0.26	0.57	0.57	0.07	0.38	0.38	0.15	0.13	0.13	0.23	0.21	0.21
Volume/Cap:	0.13	0.11	0.95	0.79	0.22	0.11	0.18	0.95	0.95	0.95	0.48	0.48
Delay/Veh:	28.2	9.9	38.5	73.6	21.3	20.5	37.7	71.5	71.5	69.2	34.8	34.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.2	9.9	38.5	73.6	21.3	20.5	37.7	71.5	71.5	69.2	34.8	34.8
HCM2kAvg:	1	2	30	5	3	1	1	11	11	17	5	5

Weston Ranch Towne Center EIR
Future 2035 Without Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 French Camp Road/Secondary Driveway

Cycle (sec): 60 Critical Vol./Cap. (X): 0.382
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 6.4
Optimal Cycle: 49 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	0 0	0	1 0	0 0	1	1 0	3 0	0	0 0	2 1	0
Volume Module:												
Base Vol:	0	0	0	98	0	19	35	1597	0	0	865	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	98	0	19	35	1597	0	0	865	25
Added Vol:	0	0	0	-88	0	-16	-25	-22	0	0	-14	-22
PasserByVol:	0	0	0	-10	0	-3	-10	10	0	0	3	-3
Initial Fut:	0	0	0	0	0	0	0	1585	0	0	854	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	1585	0	0	854	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	1585	0	0	854	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	0	0	0	0	1585	0	0	854	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	3.00	0.00
Final Sat.:	0	0	0	1900	0	1900	1900	5187	0	0	5187	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.16	0.00
Crit Moves:								****		****		
Green/Cycle:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.00	0.00	0.47	0.00
Volume/Cap:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.35	0.00
Delay/Veh:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.0	10.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.0	10.2	0.0
HCM2kAvg:	0	0	0	0	0	0	0	5	0	0	4	0

Weston Ranch Towne Center EIR
Future 2035 Without Project
PM Peak Hour

Scenario Report

Scenario:	Cumulative w/o Proj PM
Command:	Cumulative w/o Proj PM
Volume:	Cumulative PM WO
Geometry:	Cumulative
Impact Fee:	Default Impact Fee
Trip Generation:	Project PM
Trip Distribution:	Peak Hour
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Weston Ranch Towne Center EIR
Future 2035 Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Carolyn Weston/McDougald

Cycle (sec): 120 Critical Vol./Cap. (X): 0.840
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 40.9
Optimal Cycle: 104 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7		10	10	7		10	10	7		10	10	7		10	10
Lanes:	1	0	1	0 1	1	0	0	1 0	1	0	1	1 0	1	0	1	1 0
Volume Module:																
Base Vol:	170		60	300	100		60	20	60		1080	90	320		940	70
Growth Adj:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
Initial Bse:	170		60	300	100		60	20	60		1080	90	320		940	70
Added Vol:	-17		0	-7	0		0	0	0		-17	-17	-7		-17	0
PasserByVol:	0		0	0	0		0	0	0		0	0	0		0	0
Initial Fut:	153		60	293	100		60	20	60		1063	73	313		923	70
User Adj:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
PHF Adj:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
PHF Volume:	153		60	293	100		60	20	60		1063	73	313		923	70
Reduct Vol:	0		0	0	0		0	0	0		0	0	0		0	0
Reduced Vol:	153		60	293	100		60	20	60		1063	73	313		923	70
PCE Adj:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
MLF Adj:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
Final Vol.:	153		60	293	100		60	20	60		1063	73	313		923	70
Saturation Flow Module:																
Sat/Lane:	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900
Adjustment:	0.95		1.00	0.85	0.95		0.96	0.96	0.95		0.94	0.94	0.95		0.94	0.94
Lanes:	1.00		1.00	1.00	1.00		0.75	0.25	1.00		1.87	0.13	1.00		1.86	0.14
Final Sat.:	1805		1900	1615	1805		1372	457	1805		3344	230	1805		3322	252
Capacity Analysis Module:																
Vol/Sat:	0.08		0.03	0.18	0.06		0.04	0.04	0.03		0.32	0.32	0.17		0.28	0.28
Crit Moves:				****	****						****		****			
Green/Cycle:	0.14		0.22	0.22	0.07		0.14	0.14	0.10		0.38	0.38	0.21		0.48	0.48
Volume/Cap:	0.60		0.15	0.84	0.84		0.31	0.31	0.33		0.84	0.84	0.84		0.57	0.57
Delay/Veh:	52.0		38.3	61.5	93.9		47.1	47.1	51.2		38.9	38.9	61.3		22.7	22.7
User DelAdj:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
AdjDel/Veh:	52.0		38.3	61.5	93.9		47.1	47.1	51.2		38.9	38.9	61.3		22.7	22.7
HCM2kAvg:	6		2	13	6		3	3	2		21	21	14		13	13

Weston Ranch Towne Center EIR
Future 2035 Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Carolyn Weston/S. Manthey

Cycle (sec):	120	Critical Vol./Cap. (X):	0.742
Loss Time (sec):	16 (Y+R = 4 sec)	Average Delay (sec/veh):	40.5
Optimal Cycle:	80	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Ovl			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0 2 0 1			1 0 2 0 1			1 0 1 1 0			2 0 1 1 0		
Volume Module:												
Base Vol:	250	140	420	240	120	220	250	1130	100	670	860	200
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	140	420	240	120	220	250	1130	100	670	860	200
Added Vol:	-17	0	-201	0	0	0	0	-7	-17	-201	-7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	233	140	219	240	120	220	250	1123	83	469	853	200
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	233	140	219	240	120	220	250	1123	83	469	853	200
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	233	140	219	240	120	220	250	1123	83	469	853	200
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	233	140	219	240	120	220	250	1123	83	469	853	200
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.95	0.94	0.94	0.92	0.92	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.86	0.14	2.00	1.62	0.38
Final Sat.:	1805	3610	1615	1805	3610	1615	1805	3328	246	3502	2842	666
Capacity Analysis Module:												
Vol/Sat:	0.13	0.04	0.14	0.13	0.03	0.14	0.14	0.34	0.34	0.13	0.30	0.30
Crit Moves:		****		****				****		****		
Green/Cycle:	0.16	0.08	0.26	0.17	0.10	0.29	0.19	0.44	0.44	0.17	0.42	0.42
Volume/Cap:	0.83	0.47	0.53	0.77	0.33	0.46	0.72	0.77	0.77	0.77	0.72	0.72
Delay/Veh:	67.6	53.6	39.6	58.7	50.8	35.4	52.4	31.1	31.1	53.4	30.8	30.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	67.6	53.6	39.6	58.7	50.8	35.4	52.4	31.1	31.1	53.4	30.8	30.8
HCM2kAvg:	11	3	7	11	2	7	10	20	20	10	17	17

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95						1.00	0.88
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		5085	1583	1770	3539						1770	2787
Flt Permitted		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (perm)		5085	1583	1770	3539						1770	2787
Volume (vph)	0	1373	210	120	655	0	0	0	0	420	0	886
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1373	210	120	655	0	0	0	0	420	0	886
RTOR Reduction (vph)	0	0	118	0	0	0	0	0	0	0	0	270
Lane Group Flow (vph)	0	1373	92	120	655	0	0	0	0	0	420	616
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		35.1	35.1	8.2	47.3						24.7	24.7
Effective Green, g (s)		35.1	35.1	8.2	47.3						24.7	24.7
Actuated g/C Ratio		0.44	0.44	0.10	0.59						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)		2231	695	181	2092						546	860
v/s Ratio Prot		c0.27		c0.07	0.19							
v/s Ratio Perm			0.06								0.24	0.22
v/c Ratio		0.62	0.13	0.66	0.31						0.77	0.72
Uniform Delay, d1		17.3	13.4	34.6	8.2						25.1	24.5
Progression Factor		1.00	1.00	0.74	1.03						1.00	1.00
Incremental Delay, d2		1.3	0.4	4.7	0.2						6.5	2.9
Delay (s)		18.5	13.8	30.4	8.7						31.5	27.4
Level of Service		B	B	C	A						C	C
Approach Delay (s)		17.9			12.0			0.0			28.7	
Approach LOS		B			B			A			C	

Intersection Summary			
HCM Average Control Delay	20.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.9%	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)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	0.97	1.00			0.95			1.00	1.00			
Frt	1.00	1.00			0.93			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (prot)	3433	1863			3288			1770	1583			
Flt Permitted	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (perm)	3433	1863			3288			1770	1583			
Volume (vph)	1297	496	0	0	445	400	330	0	90	0	0	0
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1297	496	0	0	445	400	330	0	90	0	0	0
RTOR Reduction (vph)	0	0	0	0	197	0	0	0	70	0	0	0
Lane Group Flow (vph)	1297	496	0	0	648	0	0	330	20	0	0	0
Turn Type	Prot						Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	31.7	54.4			18.7			17.6	17.6			
Effective Green, g (s)	31.7	54.4			18.7			17.6	17.6			
Actuated g/C Ratio	0.40	0.68			0.23			0.22	0.22			
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)	1360	1267			769			389	348			
v/s Ratio Prot	c0.38	0.27			c0.20							
v/s Ratio Perm								0.19	0.01			
v/c Ratio	0.95	0.39			0.84			0.85	0.06			
Uniform Delay, d1	23.4	5.6			29.2			29.9	24.6			
Progression Factor	0.62	0.32			1.00			1.00	1.00			
Incremental Delay, d2	12.4	0.7			10.9			15.7	0.1			
Delay (s)	26.9	2.5			40.1			45.6	24.7			
Level of Service	C	A			D			D	C			
Approach Delay (s)		20.1			40.1			41.1			0.0	
Approach LOS		C			D			D			A	

Intersection Summary			
HCM Average Control Delay	28.5	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	104.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****
Intersection #5 Downing/Turnpike
****
Average Delay (sec/veh): 268.3 Worst Case Level Of Service: F[1180.6]
****

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	1!	0	0		0	0	1!	0	0		1	0	0	1	0		1	0	0	1	0	
Volume Module:																								
Base Vol:	280		20		60		60		10		150		180		300		140		60		400		60	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	280		20		60		60		10		150		180		300		140		60		400		60	
Added Vol:	0		0		0		0		0		0		0		-34		0		0		-35		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	280		20		60		60		10		150		180		266		140		60		365		60	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	280		20		60		60		10		150		180		266		140		60		365		60	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Final Vol.:	280		20		60		60		10		150		180		266		140		60		365		60	
Critical Gap Module:																								
Critical Gp:	7.1		6.5		6.2		7.1		6.5		6.2		4.1	xxxx	xxxxx				4.1	xxxx	xxxxx			
FollowUpTim:	3.5		4.0		3.3		3.5		4.0		3.3		2.2	xxxx	xxxxx				2.2	xxxx	xxxxx			
Capacity Module:																								
Cnflict Vol:	1291	1241		336			1251	1281		395			425	xxxx	xxxxx				406	xxxx	xxxxx			
Potent Cap.:	142		176		711		151		167		659		1145	xxxx	xxxxx				1164	xxxx	xxxxx			
Move Cap.:	87		141		711		104		134		659		1145	xxxx	xxxxx				1164	xxxx	xxxxx			
Volume/Cap:	3.21	0.14		0.08			0.57	0.07		0.23			0.16	xxxx		xxxx			0.05	xxxx		xxxx		
Level Of Service Module:																								
Queue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				0.6	xxxx	xxxxx				0.2	xxxx	xxxxx			
Stopped Del:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				8.7	xxxx	xxxxx				8.3	xxxx	xxxxx			
LOS by Move:	*		*		*		*		*		*		A		*		*		A		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx		105	xxxxx			xxxx		251	xxxxx			xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx		35.7	xxxxx	xxxxx		7.4	xxxxx	xxxxx				xxxx	xxxxx	xxxxx				xxxx	xxxx	xxxxx			
Shrd StpDel:	xxxxx		1181	xxxxx	xxxxx		71.8	xxxxx	xxxxx				xxxx	xxxxx	xxxxx				xxxx	xxxx	xxxxx			
Shared LOS:	*		F		*		*		F		*		*		*		*		*		*		*	
ApproachDel:	1180.6						71.8						xxxxxx						xxxxxx					
ApproachLOS:	F						F						*						*					

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 William Moss/McDougald

Cycle (sec): 60 Critical Vol./Cap. (X): 0.559
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 23.3
Optimal Cycle: 50 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	60	680	160	140	240	460	30	150	70	80	150	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	60	680	160	140	240	460	30	150	70	80	150	60
Added Vol:	-17	-7	0	-17	-7	0	0	0	-17	0	0	-17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	673	160	123	233	460	30	150	53	80	150	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	43	673	160	123	233	460	30	150	53	80	150	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	673	160	123	233	460	30	150	53	80	150	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	43	673	160	123	233	460	30	150	53	80	150	43
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.92	0.92	0.95	0.86	0.86	0.95	0.91	0.91	0.95	0.92	0.92
Lanes:	1.00	1.62	0.38	1.00	1.00	1.00	1.00	1.48	0.52	1.00	1.55	0.45
Final Sat.:	1805	2832	673	1805	1625	1625	1805	2563	906	1805	2713	778
Capacity Analysis Module:												
Vol/Sat:	0.02	0.24	0.24	0.07	0.14	0.28	0.02	0.06	0.06	0.04	0.06	0.06
Crit Moves:	****					****		****		****		
Green/Cycle:	0.12	0.30	0.30	0.15	0.33	0.33	0.12	0.17	0.17	0.12	0.17	0.17
Volume/Cap:	0.20	0.79	0.79	0.46	0.43	0.85	0.14	0.35	0.35	0.38	0.33	0.33
Delay/Veh:	24.5	23.2	23.2	24.6	15.8	27.0	24.1	22.5	22.5	25.6	22.4	22.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.5	23.2	23.2	24.6	15.8	27.0	24.1	22.5	22.5	25.6	22.4	22.4
HCM2kAvg:	1	9	9	3	4	11	1	2	2	2	2	2

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 William Moss/S. Manthey

Cycle (sec): 60 Critical Vol./Cap. (X): 0.401
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 15.7
Optimal Cycle: 46 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	2 0	0	0 0	1 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	130	530	0	0	460	130	270	0	180	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	530	0	0	460	130	270	0	180	0	0	0
Added Vol:	-17	-218	0	0	-219	0	0	0	-17	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	113	312	0	0	241	130	270	0	163	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	113	312	0	0	241	130	270	0	163	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	113	312	0	0	241	130	270	0	163	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	113	312	0	0	241	130	270	0	163	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.90	0.90	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.30	0.70	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	2223	1199	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.09	0.00	0.00	0.11	0.11	0.15	0.00	0.10	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.16	0.43	0.00	0.00	0.27	0.27	0.37	0.00	0.32	0.00	0.00	0.00
Volume/Cap:	0.40	0.20	0.00	0.00	0.40	0.40	0.40	0.00	0.32	0.00	0.00	0.00
Delay/Veh:	23.7	10.9	0.0	0.0	18.2	18.2	14.2	0.0	15.9	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.7	10.9	0.0	0.0	18.2	18.2	14.2	0.0	15.9	0.0	0.0	0.0
HCM2kAvg:	2	2	0	0	3	3	4	0	3	0	0	0

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8 McDougald/Henry Long

Cycle (sec): 100 Critical Vol./Cap. (X): 0.463
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 11.5
Optimal Cycle: 0 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	2 0	0		0 0	1 1	0		0 0	1! 0	0		0 0	0 0	0	
Volume Module:																
Base Vol:	100	630	0		0	130	100		90	0	160		0	0	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	100	630	0		0	130	100		90	0	160		0	0	0	
Added Vol:	0	-24	0		0	-24	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	100	606	0		0	106	100		90	0	160		0	0	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	100	606	0		0	106	100		90	0	160		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	100	606	0		0	106	100		90	0	160		0	0	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	100	606	0		0	106	100		90	0	160		0	0	0	
Saturation Flow Module:																
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	0.00		0.00	1.03	0.97		0.36	0.00	0.64		0.00	0.00	0.00	
Final Sat.:	600	1310	0		0	598	631		234	0	415		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.17	0.46	xxxx		xxxx	0.18	0.16		0.39	xxxx	0.39		xxxx	xxxx	xxxx	
Crit Moves:		****				****			****							
Delay/Veh:	9.8	12.6	0.0		0.0	9.9	8.9		11.4	0.0	11.4		0.0	0.0	0.0	
Delay Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	9.8	12.6	0.0		0.0	9.9	8.9		11.4	0.0	11.4		0.0	0.0	0.0	
LOS by Move:	A	B	*		*	A	A		B	*	B		*	*	*	
ApproachDel:		12.2				9.4				11.4				xxxxxx		
Delay Adj:		1.00				1.00				1.00				xxxxx		
ApprAdjDel:		12.2				9.4				11.4				xxxxxx		
LOS by Appr:		B				A				B				*		

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Manthey/Henry Long

Average Delay (sec/veh): 13.4 Worst Case Level Of Service: B[14.0]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0 0	0 0	0		0 0	0 0	0		1 0	0 0	0		0 0	0 0	0	
Volume Module:																
Base Vol:	0	0	0		0	0	260		740	0	0		0	0	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		0	0	260		740	0	0		0	0	0	
Added Vol:	0	0	0		0	0	-236		-235	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		0	0	24		505	0	0		0	0	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	0	0		0	0	24		505	0	0		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Final Vol.:	0	0	0		0	0	24		505	0	0		0	0	0	
Critical Gap Module:																
Critical Gp:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		6.4	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
FollowUpTim:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		3.5	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		0	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Potent Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		900	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Move Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		900	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Volume/Cap:	xxxx	xxxx	xxxx		xxxx	xxxx	xxxx		0.56	xxxx	xxxx		xxxx	xxxx	xxxx	
Level Of Service Module:																
Queue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		3.6	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Stopped Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		14.0	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
LOS by Move:	*	*	*		*	*	*		B	*	*		*	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd StpDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*		*	*	*		*	*	*		*	*	*	
ApproachDel:		xxxxxx				xxxxxx				14.0				xxxxxx		
ApproachLOS:		*				*				B				*		

Weston Ranch Towne Center EIR
Future 2035 Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 French Camp/Wolfe

Cycle (sec): 90 Critical Vol./Cap. (X): 0.686
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 30.0
Optimal Cycle: 65 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	120	660	190	230	700	60	60	440	60	210	640	350
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	120	660	190	230	700	60	60	440	60	210	640	350
Added Vol:	0	0	-65	-17	0	0	0	-17	0	-64	-17	-17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	120	660	125	213	700	60	60	423	60	146	623	333
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	120	660	125	213	700	60	60	423	60	146	623	333
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	120	660	125	213	700	60	60	423	60	146	623	333
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	120	660	125	213	700	60	60	423	60	146	623	333
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.94	0.94	0.95	0.89	0.89	0.95	0.86	0.86
Lanes:	1.00	1.68	0.32	1.00	1.84	0.16	1.00	2.63	0.37	1.00	2.00	1.00
Final Sat.:	1805	2962	561	1805	3285	282	1805	4456	632	1805	3278	1639
Capacity Analysis Module:												
Vol/Sat:	0.07	0.22	0.22	0.12	0.21	0.21	0.03	0.09	0.09	0.08	0.19	0.20
Crit Moves:		****		****			****				****	
Green/Cycle:	0.13	0.31	0.31	0.17	0.35	0.35	0.08	0.20	0.20	0.15	0.27	0.43
Volume/Cap:	0.52	0.71	0.71	0.71	0.61	0.61	0.43	0.48	0.48	0.56	0.71	0.47
Delay/Veh:	38.8	29.6	29.6	43.4	25.0	25.0	41.7	32.2	32.2	38.5	31.7	18.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.8	29.6	29.6	43.4	25.0	25.0	41.7	32.2	32.2	38.5	31.7	18.4
HCM2kAvg:	4	11	11	7	9	9	2	4	4	5	9	7

Weston Ranch Towne Center EIR
Future 2035 Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 French Camp/McDougald

Cycle (sec): 90 Critical Vol./Cap. (X): 0.498
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 16.2
Optimal Cycle: 49 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	0 0	0	1 0	0 0	1	1 0	3 0	0	0 0	2 1	0
Volume Module:												
Base Vol:	0	0	0	180	0	250	40	820	0	0	950	430
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	180	0	250	40	820	0	0	950	430
Added Vol:	0	0	0	-24	0	0	0	-99	0	0	-98	-24
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	156	0	250	40	721	0	0	852	406
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	156	0	250	40	721	0	0	852	406
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	156	0	250	40	721	0	0	852	406
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	156	0	250	40	721	0	0	852	406
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	0.91	1.00	1.00	0.87	0.87
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	2.03	0.97
Final Sat.:	0	0	0	1805	0	1615	1805	5187	0	0	3344	1594
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.09	0.00	0.15	0.02	0.14	0.00	0.00	0.25	0.25
Crit Moves:						****	****				****	
Green/Cycle:	0.00	0.00	0.00	0.30	0.00	0.30	0.08	0.57	0.00	0.00	0.49	0.49
Volume/Cap:	0.00	0.00	0.00	0.29	0.00	0.52	0.28	0.24	0.00	0.00	0.52	0.52
Delay/Veh:	0.0	0.0	0.0	24.6	0.0	27.2	40.3	9.8	0.0	0.0	15.9	15.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	24.6	0.0	27.2	40.3	9.8	0.0	0.0	15.9	15.9
HCM2kAvg:	0	0	0	4	0	6	1	3	0	0	8	8

CORSIM LEVEL OF SERVICE REPORT
Including Upstream Delays

Project: Weston Ranch Towne Center EIR **HCM:** 2000
Scenario: Year 2035 No Project **PHF:** 1
TOD: PM **# of Runs:** 10

Intersection: Manthey Road / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	80	86	108	8	61.0	E	--
	T	424	390	92	12	49.3	D	--
	R	330	348	105	14	9.0	A	--
	Subtotal	**834**	**824**	**99**	**--**	**33.5**	**C**	**--**
SB	L	249	247	99	6	59.2	E	--
	T	125	119	95	4	43.3	D	--
	R	19	18	95	2	25.1	C	--
	Subtotal	**393**	**384**	**98**	**--**	**52.7**	**D**	**--**
EB	L	146	139	95	8	58.6	E	--
	T	698	711	102	8	27.4	C	--
	R	60	59	98	3	28.7	C	--
	Subtotal	**904**	**909**	**101**	**--**	**32.2**	**C**	**--**
WB	L	520	539	104	23	44.4	D	--
	T	1228	1238	101	38	26.6	C	--
	R	394	387	98	10	10.4	B	--
	Subtotal	**2142**	**2164**	**101**	**--**	**28.1**	**C**	**--**
	Total	**4273**	**4280**	**100**	**--**	**32.2**	**C**	**--**

Intersection: I-5 SB Ramps / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
SB	L	1500	1510	101	11	38.0	D	--
	R	643	652	101	10	40.9	D	--
	Subtotal	**2143**	**2162**	**101**	**--**	**38.9**	**D**	**--**
EB	T	1102	1110	101	31	22.9	C	--
	R	175	176	101	9	7.4	A	--
	Subtotal	**1277**	**1286**	**101**	**--**	**20.8**	**C**	**--**
WB	T	1499	1481	99	25	20.5	C	--
	Subtotal	**1499**	**1481**	**99**	**--**	**20.5**	**C**	**--**
	Total	**4919**	**4929**	**100**	**--**	**28.6**	**C**	**--**

CORSIM LEVEL OF SERVICE REPORT
Including Upstream Delays

Project: Weston Ranch Towne Center EIR **HCM:** 2000
Scenario: Year 2035 No Project **PHF:** 1
TOD: PM **# of Runs:** 10

Intersection: I-5 NB Ramps / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	323	318	98	11	27.7	C	--
	R	1010	1013	100	10	37.3	D	--
	Subtotal	**1333**	**1331**	**100**	**--**	**35.0**	**C**	**--**
EB	T	2117	2121	100	18	19.4	B	--
	Subtotal	**2117**	**2121**	**100**	**--**	**19.4**	**B**	**--**
WB	T	3586	3590	100	31	10.8	B	--
	Subtotal	**3586**	**3590**	**100**	**--**	**10.8**	**B**	**--**
	Total	**7036**	**7042**	**100**	**--**	**17.9**	**B**	**--**

Intersection: Sperry Road / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	671	673	100	9	53.1	D	--
	T	100	87	87	8	35.1	D	--
	R	60	53	88	5	19.2	B	--
	Subtotal	**831**	**813**	**98**	**--**	**48.9**	**D**	**--**
SB	L	110	112	102	8	57.0	E	--
	T	130	129	99	16	52.4	D	--
	R	595	601	101	17	40.7	D	--
	Subtotal	**835**	**842**	**101**	**--**	**44.6**	**D**	**--**
EB	L	266	281	106	10	68.1	E	--
	T	2030	2037	100	40	32.2	C	--
	R	831	839	101	18	12.3	B	--
	Subtotal	**3127**	**3158**	**101**	**--**	**30.1**	**C**	**--**
WB	L	140	155	111	5	66.2	E	--
	T	2319	2324	100	7	41.1	D	--
	R	80	68	85	9	21.7	C	--
	Subtotal	**2539**	**2547**	**100**	**--**	**42.1**	**D**	**--**
	Total	**7332**	**7359**	**100**	**--**	**38.0**	**D**	**--**

Weston Ranch Towne Center EIR
Future 2035 Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Yettner/Manthey

Cycle (sec):	60	Critical Vol./Cap. (X):	0.648
Loss Time (sec):	16 (Y+R = 4 sec)	Average Delay (sec/veh):	26.5
Optimal Cycle:	54	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	1	1	0	1 0	1	1	0	1 0	0	1	0	1 0	0	1	0
Volume Module:																
Base Vol:	60	600	50		50	520	250		300	100	60		50	100	50	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	60	600	50		50	520	250		300	100	60		50	100	50	
Added Vol:	0	-116	0		0	-115	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	60	484	50		50	405	250		300	100	60		50	100	50	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	60	484	50		50	405	250		300	100	60		50	100	50	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	60	484	50		50	405	250		300	100	60		50	100	50	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	60	484	50		50	405	250		300	100	60		50	100	50	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.94	0.94		0.95	0.90	0.90		0.95	0.94	0.94		0.95	0.95	0.95	
Lanes:	1.00	1.81	0.19		1.00	1.24	0.76		1.00	0.62	0.38		1.00	0.67	0.33	
Final Sat.:	1805	3226	333		1805	2105	1299		1805	1121	673		1805	1203	602	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.15	0.15		0.03	0.19	0.19		0.17	0.09	0.09		0.03	0.08	0.08	
Crit Moves:	****					****			****					****		
Green/Cycle:	0.12	0.21	0.21		0.15	0.24	0.24		0.21	0.22	0.22		0.15	0.17	0.17	
Volume/Cap:	0.28	0.71	0.71		0.19	0.80	0.80		0.80	0.40	0.40		0.18	0.50	0.50	
Delay/Veh:	25.0	25.2	25.2		22.8	26.9	26.9		33.8	20.7	20.7		22.4	24.0	24.0	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	25.0	25.2	25.2		22.8	26.9	26.9		33.8	20.7	20.7		22.4	24.0	24.0	
HCM2kAvg:	1	6	6		1	8	8		8	3	3		1	3	3	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.86		1.00	0.86	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.93		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	6383		1770	6408	1583	1770	3275		1770	3265	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	6383		1770	6408	1583	1770	3275		1770	3265	
Volume (vph)	286	2260	60	80	2380	108	60	81	80	88	71	76
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	286	2260	60	80	2380	108	60	81	80	88	71	76
RTOR Reduction (vph)	0	2	0	0	0	40	0	72	0	0	67	0
Lane Group Flow (vph)	286	2318	0	80	2380	68	60	89	0	88	80	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)	20.8	73.6		9.6	62.4	62.4	7.0	12.2		8.6	13.8	
Effective Green, g (s)	20.8	73.6		9.6	62.4	62.4	7.0	12.2		8.6	13.8	
Actuated g/C Ratio	0.17	0.61		0.08	0.52	0.52	0.06	0.10		0.07	0.12	
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)	307	3915		142	3332	823	103	333		127	375	
v/s Ratio Prot	c0.16	0.36		0.05	c0.37		c0.03	c0.03		c0.05	0.02	
v/s Ratio Perm						0.04						
v/c Ratio	0.93	0.59		0.56	0.71	0.08	0.58	0.27		0.69	0.21	
Uniform Delay, d1	48.9	14.1		53.2	22.0	14.4	55.1	49.8		54.4	48.2	
Progression Factor	1.00	1.00		1.01	0.79	0.54	1.00	1.00		1.00	1.00	
Incremental Delay, d2	33.8	0.7		4.3	1.1	0.2	8.1	0.4		15.1	0.3	
Delay (s)	82.7	14.8		57.9	18.4	7.9	63.2	50.2		69.5	48.5	
Level of Service	F	B		E	B	A	E	D		E	D	
Approach Delay (s)		22.2			19.2			53.7			56.3	
Approach LOS		C			B			D			E	

Intersection Summary			
HCM Average Control Delay	23.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	73.4%	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)		4.0	4.0	4.0	4.0					4.0		4.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.97		0.88
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		5085	1583	1770	3539					3433		2787
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		5085	1583	1770	3539					3433		2787
Volume (vph)	0	1801	626	500	768	0	0	0	0	640	0	1800
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1801	626	500	768	0	0	0	0	640	0	1800
RTOR Reduction (vph)	0	0	309	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1801	317	500	768	0	0	0	0	640	0	1800
Turn Type			Perm	Prot						Prot		Free
Protected Phases		4		3	8					1		
Permitted Phases			4									Free
Actuated Green, G (s)		46.9	46.9	36.7	87.6					24.4		120.0
Effective Green, g (s)		46.9	46.9	36.7	87.6					24.4		120.0
Actuated g/C Ratio		0.39	0.39	0.31	0.73					0.20		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)		1987	619	541	2583					698		2787
v/s Ratio Prot		c0.35		c0.28	0.22					c0.19		
v/s Ratio Perm			0.20									0.65
v/c Ratio		0.91	0.51	0.92	0.30					0.92		0.65
Uniform Delay, d1		34.5	27.8	40.3	5.6					46.8		0.0
Progression Factor		0.61	1.21	1.06	0.02					1.00		1.00
Incremental Delay, d2		6.3	2.5	19.3	0.3					16.8		1.2
Delay (s)		27.5	36.2	61.8	0.4					63.6		1.2
Level of Service		C	D	E	A					E		A
Approach Delay (s)		29.7			24.6			0.0			17.5	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM Average Control Delay	23.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.7%	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)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	0.97	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)	3433	3539			3539	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	3539			3539	1583	3433		1583			
Volume (vph)	550	1891	0	0	1041	680	226	0	930	0	0	0
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	550	1891	0	0	1041	680	226	0	930	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	208	0	0	0	0	0	0
Lane Group Flow (vph)	550	1891	0	0	1041	472	226	0	930	0	0	0
Turn Type	Prot					Perm	Prot		Free			
Protected Phases	7	4			8		5					
Permitted Phases						8			Free			
Actuated Green, G (s)	32.0	99.0			63.0	63.0	13.0		120.0			
Effective Green, g (s)	32.0	99.0			63.0	63.0	13.0		120.0			
Actuated g/C Ratio	0.27	0.82			0.52	0.52	0.11		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)	915	2920			1858	831	372		1583			
v/s Ratio Prot	0.16	c0.53			0.29		0.07					
v/s Ratio Perm						0.30			c0.59			
v/c Ratio	0.60	0.65			0.56	0.57	0.61		0.59			
Uniform Delay, d1	38.4	3.9			19.2	19.3	51.1		0.0			
Progression Factor	0.56	0.68			1.00	1.00	1.00		1.00			
Incremental Delay, d2	0.5	0.5			1.2	2.8	2.8		1.6			
Delay (s)	22.0	3.2			20.4	22.1	53.9		1.6			
Level of Service	C	A			C	C	D		A			
Approach Delay (s)		7.4			21.1			11.8			0.0	
Approach LOS		A			C			B			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)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	94.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Weston Ranch Towne Center EIR
Future 2035 Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #20 Howard/Wolfe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.945
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 46.7
Optimal Cycle: 120 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	60	200	410	220	80	120	200	410	60	790	380	340
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	60	200	410	220	80	120	200	410	60	790	380	340
Added Vol:	0	0	0	0	0	-4	-4	-4	0	0	-4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	200	410	220	80	116	196	406	60	790	376	340
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	200	410	220	80	116	196	406	60	790	376	340
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	200	410	220	80	116	196	406	60	790	376	340
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	60	200	410	220	80	116	196	406	60	790	376	340
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.95	0.93	0.93	0.95	0.88	0.88
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.74	0.26	1.00	1.05	0.95
Final Sat.:	1805	3610	1615	1805	3610	1615	1805	3085	456	1805	1761	1593
Capacity Analysis Module:												
Vol/Sat:	0.03	0.06	0.25	0.12	0.02	0.07	0.11	0.13	0.13	0.44	0.21	0.21
Crit Moves:			****	****				****		****		
Green/Cycle:	0.16	0.27	0.27	0.13	0.23	0.23	0.20	0.14	0.14	0.46	0.40	0.40
Volume/Cap:	0.20	0.21	0.95	0.95	0.09	0.31	0.53	0.95	0.95	0.95	0.53	0.53
Delay/Veh:	36.5	28.4	65.4	87.0	30.1	32.1	37.2	69.9	69.9	44.7	23.4	23.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.5	28.4	65.4	87.0	30.1	32.1	37.2	69.9	69.9	44.7	23.4	23.4
HCM2kAvg:	2	2	17	11	1	3	6	11	11	30	9	9

Weston Ranch Towne Center EIR
Future 2035 Without Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 French Camp Road/Secondary Driveway

Cycle (sec): 60 Critical Vol./Cap. (X): 0.321
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 6.5
Optimal Cycle: 49 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	0 0	0 0	0	1 0	0 0	1	1 0	3 0	0	0 0	2 1	0
Volume Module:												
Base Vol:	0	0	0	323	0	95	81	942	0	0	1357	93
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	323	0	95	81	942	0	0	1357	93
Added Vol:	0	0	0	-309	0	-66	-67	-57	0	0	-56	-64
Pass-by:	0	0	0	-14	0	-29	-14	14	0	0	29	-29
Initial Fut:	0	0	0	0	0	0	0	899	0	0	1330	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	899	0	0	1330	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	899	0	0	1330	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	0	0	0	0	899	0	0	1330	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	3.00	0.00
Final Sat.:	0	0	0	1900	0	1900	1900	5187	0	0	5187	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.26	0.00
Crit Moves:							****				****	
Green/Cycle:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.68	0.00
Volume/Cap:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.38	0.00
Delay/Veh:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	4.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	4.1	0.0
HCM2kAvg:	0	0	0	0	0	0	0	4	0	0	4	0

2035 PLUS PROJECT

Weston Ranch Towne Center EIR
Future 2035 With Project
AM Peak Hour

Scenario Report

Scenario:	Cumulative AM
Command:	Cumulative AM
Volume:	Cumulative AM
Geometry:	Cumulative
Impact Fee:	Default Impact Fee
Trip Generation:	No Project
Trip Distribution:	Peak Hour
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Weston Ranch Towne Center EIR
Future 2035 With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Carolyn Weston/McDougald

Cycle (sec): 120 Critical Vol./Cap. (X): 0.847
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 41.5
Optimal Cycle: 107 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	1 0	1		1 0	0 1	0		1 0	1 1	0		1 0	1 1	0	
Volume Module:																
Base Vol:	180	70	260		90	70	20		20	1050	120		350	810	60	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	180	70	260		90	70	20		20	1050	120		350	810	60	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	180	70	260		90	70	20		20	1050	120		350	810	60	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	180	70	260		90	70	20		20	1050	120		350	810	60	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	180	70	260		90	70	20		20	1050	120		350	810	60	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	180	70	260		90	70	20		20	1050	120		350	810	60	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	1.00	0.85		0.95	0.97	0.97		0.95	0.94	0.94		0.95	0.94	0.94	
Lanes:	1.00	1.00	1.00		1.00	0.78	0.22		1.00	1.79	0.21		1.00	1.86	0.14	
Final Sat.:	1805	1900	1615		1805	1429	408		1805	3191	365		1805	3327	246	
Capacity Analysis Module:																
Vol/Sat:	0.10	0.04	0.16		0.05	0.05	0.05		0.01	0.33	0.33		0.19	0.24	0.24	
Crit Moves:			****		****					****			****			
Green/Cycle:	0.14	0.19	0.19		0.06	0.11	0.11		0.12	0.39	0.39		0.23	0.50	0.50	
Volume/Cap:	0.74	0.19	0.85		0.85	0.43	0.43		0.09	0.85	0.85		0.85	0.49	0.49	
Delay/Veh:	60.8	41.1	66.0		99.3	51.0	51.0		47.2	38.5	38.5		59.2	20.2	20.2	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	60.8	41.1	66.0		99.3	51.0	51.0		47.2	38.5	38.5		59.2	20.2	20.2	
HCM2kAvg:	8	2	12		6	4	4		1	22	22		16	11	11	

Weston Ranch Towne Center EIR
Future 2035 With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Carolyn Weston/S. Manthey

Cycle (sec): 120 Critical Vol./Cap. (X): 0.704
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 32.6
Optimal Cycle: 73 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Ovl				Include				Include			
Min. Green:	7		10	10	7		10	10	7		10	10	7		10	10
Lanes:	1	0	2	0 1	1	0	2	0 1	1	0	1	1 0	2	0	1	1 0
Volume Module:																
Base Vol:	150		80	340	80		70	80	100		1190	110	500		990	100
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	150		80	340	80		70	80	100		1190	110	500		990	100
Added Vol:	0		0	0	0		0	0	0		0	0	0		0	0
PasserByVol:	0		0	0	0		0	0	0		0	0	0		0	0
Initial Fut:	150		80	340	80		70	80	100		1190	110	500		990	100
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	150		80	340	80		70	80	100		1190	110	500		990	100
Reduct Vol:	0		0	0	0		0	0	0		0	0	0		0	0
Reduced Vol:	150		80	340	80		70	80	100		1190	110	500		990	100
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Final Vol.:	150		80	340	80		70	80	100		1190	110	500		990	100
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.95	0.95		0.85	0.95	0.95		0.85	0.95	0.94		0.94	0.92	0.94		0.94
Lanes:	1.00	2.00		1.00	1.00	2.00		1.00	1.00	1.83		0.17	2.00	1.82		0.18
Final Sat.:	1805	3610		1615	1805	3610		1615	1805	3262		301	3502	3233		327
Capacity Analysis Module:																
Vol/Sat:	0.08	0.02		0.21	0.04	0.02		0.05	0.06	0.36		0.36	0.14	0.31		0.31
Crit Moves:	****					****				****			****			
Green/Cycle:	0.11	0.11		0.30	0.08	0.08		0.19	0.11	0.48		0.48	0.19	0.57		0.57
Volume/Cap:	0.75	0.19		0.69	0.56	0.23		0.26	0.51	0.75		0.75	0.75	0.54		0.54
Delay/Veh:	66.9	48.4		41.2	57.9	51.8		41.8	52.9	27.1		27.1	50.9	16.6		16.6
User DelAdj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:	66.9	48.4		41.2	57.9	51.8		41.8	52.9	27.1		27.1	50.9	16.6		16.6
HCM2kAvg:	7		1	12	4		1	3	4		20	20	11		13	13

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95						1.00	0.88
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		5085	1583	1770	3539						1770	2787
Flt Permitted		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (perm)		5085	1583	1770	3539						1770	2787
Volume (vph)	0	1310	300	80	320	0	0	0	0	480	0	1270
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1310	300	80	320	0	0	0	0	480	0	1270
RTOR Reduction (vph)	0	0	178	0	0	0	0	0	0	0	0	520
Lane Group Flow (vph)	0	1310	122	80	320	0	0	0	0	0	480	750
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		32.5	32.5	6.0	42.5						29.5	29.5
Effective Green, g (s)		32.5	32.5	6.0	42.5						29.5	29.5
Actuated g/C Ratio		0.41	0.41	0.08	0.53						0.37	0.37
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)		2066	643	133	1880						653	1028
v/s Ratio Prot		c0.26		c0.05	0.09							
v/s Ratio Perm			0.08								0.27	0.27
v/c Ratio		0.63	0.19	0.60	0.17						0.74	0.73
Uniform Delay, d1		19.0	15.3	35.8	9.7						21.9	21.8
Progression Factor		1.00	1.00	0.56	1.05						1.00	1.00
Incremental Delay, d2		1.5	0.7	6.9	0.2						4.3	2.6
Delay (s)		20.5	15.9	27.0	10.3						26.2	24.4
Level of Service		C	B	C	B						C	C
Approach Delay (s)		19.6			13.7			0.0			24.9	
Approach LOS		B			B			A			C	

Intersection Summary			
HCM Average Control Delay	21.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	98.2%	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)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	0.97	1.00			0.95			1.00	1.00			
Frt	1.00	1.00			0.92			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (prot)	3433	1863			3253			1770	1583			
Flt Permitted	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (perm)	3433	1863			3253			1770	1583			
Volume (vph)	1090	700	0	0	240	280	160	0	80	0	0	0
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1090	700	0	0	240	280	160	0	80	0	0	0
RTOR Reduction (vph)	0	0	0	0	191	0	0	0	68	0	0	0
Lane Group Flow (vph)	1090	700	0	0	329	0	0	160	12	0	0	0
Turn Type	Prot						Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	30.4	59.8			25.4			12.2	12.2			
Effective Green, g (s)	30.4	59.8			25.4			12.2	12.2			
Actuated g/C Ratio	0.38	0.75			0.32			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)	1305	1393			1033			270	241			
v/s Ratio Prot	c0.32	c0.38			0.10							
v/s Ratio Perm								0.09	0.01			
v/c Ratio	0.84	0.50			0.32			0.59	0.05			
Uniform Delay, d1	22.5	4.1			20.7			31.6	29.0			
Progression Factor	0.59	0.57			1.00			1.00	1.00			
Incremental Delay, d2	3.8	1.0			0.8			3.5	0.1			
Delay (s)	17.2	3.4			21.5			35.0	29.0			
Level of Service	B	A			C			D	C			
Approach Delay (s)		11.8			21.5			33.0			0.0	
Approach LOS		B			C			C			A	

Intersection Summary			
HCM Average Control Delay	15.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	98.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Weston Ranch Towne Center EIR
Future 2035 With Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Downing/Turnpike

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	1!	0	0		0	0	1!	0	0		1	0	0	1	0		1	0	0	1	0	
Volume Module:																								
Base Vol:	110	320		60			80	100		140			150	390		240			150	270		70		
Growth Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
Initial Bse:	110	320		60			80	100		140			150	390		240			150	270		70		
Added Vol:	0	0		0			0	0		0			0	0		0			0	0		0		
PasserByVol:	0	0		0			0	0		0			0	0		0			0	0		0		
Initial Fut:	110	320		60			80	100		140			150	390		240			150	270		70		
User Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
PHF Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
PHF Volume:	110	320		60			80	100		140			150	390		240			150	270		70		
Reduct Vol:	0	0		0			0	0		0			0	0		0			0	0		0		
Final Vol.:	110	320		60			80	100		140			150	390		240			150	270		70		
Critical Gap Module:																								
Critical Gp:	7.1	6.5		6.2			7.1	6.5		6.2			4.1	xxxx		xxxxx			4.1	xxxx		xxxxx		
FollowUpTim:	3.5	4.0		3.3			3.5	4.0		3.3			2.2	xxxx		xxxxx			2.2	xxxx		xxxxx		
Capacity Module:																								
Cnflict Vol:	1535	1450		510			1605	1535		305			340	xxxx		xxxxx			630	xxxx		xxxxx		
Potent Cap.:	96	132		567			86	117		740			1230	xxxx		xxxxx			962	xxxx		xxxxx		
Move Cap.:	0	98		567			0	87		740			1230	xxxx		xxxxx			962	xxxx		xxxxx		
Volume/Cap:	xxxx	3.27		0.11			xxxx	1.15		0.19			0.12	xxxx		xxxx			0.16	xxxx		xxxx		
Level Of Service Module:																								
Queue:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			0.4	xxxx		xxxxx			0.6	xxxx		xxxxx		
Stopped Del:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			8.3	xxxx		xxxxx			9.4	xxxx		xxxxx		
LOS by Move:	*	*		*			*	*		*			A	*		*			A	*		*		
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx		0	xxxxx			xxxx		0	xxxxx			xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx		
SharedQueue:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
Shrd StpDel:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
Shared LOS:	*	*		*			*	*		*			*	*		*			*	*		*		
ApproachDel:	xxxxxx						xxxxxx						xxxxxx						xxxxxx					
ApproachLOS:	F						F						*						*					

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 William Moss/McDougald

Cycle (sec): 60 Critical Vol./Cap. (X): 0.649
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 25.4
Optimal Cycle: 54 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1	0	1	1 0	1	0	1	1 0	1	0	1	1 0	1	0	1	1 0
Volume Module:																
Base Vol:	60	220	120		100	390	160		350	200	60		110	160	140	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	60	220	120		100	390	160		350	200	60		110	160	140	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	60	220	120		100	390	160		350	200	60		110	160	140	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	60	220	120		100	390	160		350	200	60		110	160	140	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	60	220	120		100	390	160		350	200	60		110	160	140	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	60	220	120		100	390	160		350	200	60		110	160	140	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.90	0.90		0.95	0.91	0.91		0.95	0.92	0.92		0.95	0.88	0.88	
Lanes:	1.00	1.29	0.71		1.00	1.42	0.58		1.00	1.54	0.46		1.00	1.07	0.93	
Final Sat.:	1805	2212	1207		1805	2447	1004		1805	2680	804		1805	1791	1567	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.10	0.10		0.06	0.16	0.16		0.19	0.07	0.07		0.06	0.09	0.09	
Crit Moves:	****					****			****					****		
Green/Cycle:	0.12	0.19	0.19		0.13	0.20	0.20		0.25	0.24	0.24		0.17	0.17	0.17	
Volume/Cap:	0.28	0.53	0.53		0.42	0.79	0.79		0.79	0.31	0.31		0.36	0.54	0.54	
Delay/Veh:	25.0	22.8	22.8		25.2	28.5	28.5		30.0	18.8	18.8		22.7	23.9	23.9	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	25.0	22.8	22.8		25.2	28.5	28.5		30.0	18.8	18.8		22.7	23.9	23.9	
HCM2kAvg:	1	4	4		2	7	7		9	2	2		2	3	3	

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 William Moss/S. Manthey

Cycle (sec): 60 Critical Vol./Cap. (X): 0.426
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 13.0
Optimal Cycle: 46 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1	0	2	0 0	0	0	1	1 0	1	0	0	0 1	0	0	0	0 0
Volume Module:																
Base Vol:	80	360	0		0	610	70		190	0	130		0	0	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	80	360	0		0	610	70		190	0	130		0	0	0	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	80	360	0		0	610	70		190	0	130		0	0	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	80	360	0		0	610	70		190	0	130		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	80	360	0		0	610	70		190	0	130		0	0	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	80	360	0		0	610	70		190	0	130		0	0	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	1.00		1.00	0.94	0.94		0.95	1.00	0.85		1.00	1.00	1.00	
Lanes:	1.00	2.00	0.00		0.00	1.79	0.21		1.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	1805	3610	0		0	3190	366		1805	0	1615		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.10	0.00		0.00	0.19	0.19		0.11	0.00	0.08		0.00	0.00	0.00	
Crit Moves:	****					****			****							
Green/Cycle:	0.12	0.56	0.00		0.00	0.44	0.44		0.24	0.00	0.24		0.00	0.00	0.00	
Volume/Cap:	0.38	0.18	0.00		0.00	0.43	0.43		0.43	0.00	0.33		0.00	0.00	0.00	
Delay/Veh:	25.6	6.6	0.0		0.0	11.8	11.8		19.9	0.0	19.3		0.0	0.0	0.0	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	25.6	6.6	0.0		0.0	11.8	11.8		19.9	0.0	19.3		0.0	0.0	0.0	
HCM2kAvg:	2	2	0		0	5	5		4	0	2		0	0	0	

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8 McDougald/Henry Long

Cycle (sec): 100 Critical Vol./Cap. (X): 0.373
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 9.7
Optimal Cycle: 0 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	1! 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	90	110	0	0	160	190	140	0	120	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	110	0	0	160	190	140	0	120	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	90	110	0	0	160	190	140	0	120	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	110	0	0	160	190	140	0	120	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	110	0	0	160	190	140	0	120	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	90	110	0	0	160	190	140	0	120	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.00	1.00	0.54	0.00	0.46	0.00	0.00	0.00
Final Sat.:	577	1255	0	0	648	742	375	0	321	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.16	0.09	xxxx	xxxx	0.25	0.26	0.37	xxxx	0.37	xxxx	xxxx	xxxx
Crit Moves:	****					****	****					
Delay/Veh:	9.8	8.7	0.0	0.0	9.8	8.9	10.6	0.0	10.6	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.8	8.7	0.0	0.0	9.8	8.9	10.6	0.0	10.6	0.0	0.0	0.0
LOS by Move:	A	A	*	*	A	A	B	*	B	*	*	*

ApproachDel:	9.2	9.3	10.6	xxxxxx
Delay Adj:	1.00	1.00	1.00	xxxxx
ApprAdjDel:	9.2	9.3	10.6	xxxxxx
LOS by Appr:	A	A	B	*

Weston Ranch Towne Center EIR
Future 2035 With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Manthey/Henry Long

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: B[10.5]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 0	0	0 0	0 0	1	1 0	0 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	0	0	0	0	0	670	250	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	670	250	0	0	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	670	250	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	670	250	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	0	0	670	250	0	0	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	900	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	900	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.28	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*

ApproachDel:	xxxxxx	xxxxxx	10.5	xxxxxx
ApproachLOS:	*	*	B	*

Weston Ranch Towne Center EIR
Future 2035 With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 French Camp/Wolfe

Cycle (sec): 90 Critical Vol./Cap. (X): 0.748
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 33.7
Optimal Cycle: 74 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Ovl			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	1	1	0	1 0	1	1	0	1 0	2	1	0	1 0	2	1	0
Volume Module:																
Base Vol:	60	660	70		380	570	90		10	730	190		30	570	140	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	60	660	70		380	570	90		10	730	190		30	570	140	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	60	660	70		380	570	90		10	730	190		30	570	140	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	60	660	70		380	570	90		10	730	190		30	570	140	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	60	660	70		380	570	90		10	730	190		30	570	140	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	60	660	70		380	570	90		10	730	190		30	570	140	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.94	0.94		0.95	0.93	0.93		0.95	0.88	0.88		0.95	0.88	0.88	
Lanes:	1.00	1.81	0.19		1.00	1.73	0.27		1.00	2.38	0.62		1.00	2.41	0.59	
Final Sat.:	1805	3218	341		1805	3055	482		1805	3988	1038		1805	4039	992	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.21	0.21		0.21	0.19	0.19		0.01	0.18	0.18		0.02	0.14	0.14	
Crit Moves:		****			****					****			****			
Green/Cycle:	0.15	0.26	0.26		0.26	0.36	0.36		0.11	0.23	0.23		0.08	0.20	0.46	
Volume/Cap:	0.22	0.80	0.80		0.80	0.51	0.51		0.05	0.80	0.80		0.21	0.72	0.31	
Delay/Veh:	33.9	36.7	36.7		40.7	22.7	22.7		36.1	37.1	37.1		39.7	36.3	15.4	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	33.9	36.7	36.7		40.7	22.7	22.7		36.1	37.1	37.1		39.7	36.3	15.4	
HCM2kAvg:	2	12	12		13	7	7		0	10	10		1	8	4	

Weston Ranch Towne Center EIR
Future 2035 With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 French Camp/McDougald

Cycle (sec): 90 Critical Vol./Cap. (X): 0.678
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 26.2
Optimal Cycle: 55 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Protected				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0 0	0	0	0	1 0	0	0	1	1 0	3	0	0	0 0	2	1	0
Volume Module:																
Base Vol:	0	0	0		620	0	60		160	1020	0		0	680	110	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		620	0	60		160	1020	0		0	680	110	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		620	0	60		160	1020	0		0	680	110	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	0	0		620	0	60		160	1020	0		0	680	110	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		620	0	60		160	1020	0		0	680	110	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	0	0	0		620	0	60		160	1020	0		0	680	110	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.95	1.00	0.85		0.95	0.91	1.00		1.00	0.89	0.89	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	3.00	0.00		0.00	2.58	0.42	
Final Sat.:	0	0	0		1805	0	1615		1805	5187	0		0	4371	707	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.34	0.00	0.04		0.09	0.20	0.00		0.00	0.16	0.16	
Crit Moves:					****				****					****		
Green/Cycle:	0.00	0.00	0.00		0.51	0.00	0.51		0.13	0.36	0.00		0.00	0.23	0.23	
Volume/Cap:	0.00	0.00	0.00		0.68	0.00	0.07		0.68	0.55	0.00		0.00	0.68	0.68	
Delay/Veh:	0.0	0.0	0.0		18.8	0.0	11.4		45.0	23.3	0.0		0.0	33.3	33.3	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	0.0		18.8	0.0	11.4		45.0	23.3	0.0		0.0	33.3	33.3	
HCM2kAvg:	0	0	0		14	0	1		6	8	0		0	8	8	

CORSIM LEVEL OF SERVICE REPORT
Including Upstream Delays

Project: Weston Ranch Towne Center EIR **HCM:** 2000
Scenario: Year 2035 With Project **PHF:** 1
TOD: AM **# of Runs:** 10

Intersection: Manthey Road / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	70	65	93	0	54.3	D	--
	T	80	76	95	0	48.2	D	--
	R	210	216	103	0	14.1	B	--
	Subtotal	**360**	**357**	**99**	**--**	**28.6**	**C**	**--**
SB	L	770	768	100	1	40.4	D	--
	T	330	301	91	0	29.4	C	--
	R	40	43	108	0	32.5	C	--
	Subtotal	**1140**	**1112**	**98**	**--**	**37.1**	**D**	**--**
EB	L	250	228	91	0	48.9	D	--
	T	1360	1386	102	2	36.4	D	--
	R	80	85	106	1	43.7	D	--
	Subtotal	**1690**	**1699**	**101**	**--**	**38.5**	**D**	**--**
WB	L	300	307	102	2	50.7	D	--
	T	920	921	100	9	24.4	C	--
	R	310	325	105	1	7.2	A	--
	Subtotal	**1530**	**1553**	**102**	**--**	**26.0**	**C**	**--**
	Total	**4720**	**4721**	**100**	**--**	**33.3**	**C**	**--**

Intersection: I-5 SB Ramps / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
SB	L	1430	1405	98	1	30.4	C	--
	R	520	518	100	1	31.3	C	--
	Subtotal	**1950**	**1923**	**99**	**--**	**30.7**	**C**	**--**
EB	T	1400	1405	100	2	25.4	C	--
	R	940	971	103	2	23.5	C	--
	Subtotal	**2340**	**2376**	**102**	**--**	**24.6**	**C**	**--**
WB	T	1010	1026	102	11	23.6	C	--
	Subtotal	**1010**	**1026**	**102**	**--**	**23.6**	**C**	**--**
	Total	**5300**	**5325**	**100**	**--**	**26.6**	**C**	**--**

CORSIM LEVEL OF SERVICE REPORT
Including Upstream Delays

Project: Weston Ranch Towne Center EIR **HCM:** 2000
Scenario: Year 2035 With Project **PHF:** 1
TOD: AM **# of Runs:** 10

Intersection: I-5 NB Ramps / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	330	326	99	2	27.7	C	--
	R	1120	1136	101	2	43.5	D	--
	Subtotal	**1450**	**1462**	**101**	**--**	**40.0**	**D**	**--**
EB	T	1890	1897	100	2	26.2	C	--
	Subtotal	**1890**	**1897**	**100**	**--**	**26.2**	**C**	**--**
WB	T	3180	3206	101	29	25.1	C	--
	Subtotal	**3180**	**3206**	**101**	**--**	**25.1**	**C**	**--**
	Total	**6520**	**6565**	**101**	**--**	**28.7**	**C**	**--**

Intersection: Sperry Road / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	820	835	102	8	56.4	E	--
	T	80	63	79	0	34.9	C	--
	R	60	55	92	0	17.2	B	--
	Subtotal	**960**	**953**	**99**	**--**	**52.7**	**D**	**--**
SB	L	80	85	106	0	45.1	D	--
	T	70	61	87	0	47.6	D	--
	R	560	556	99	1	32.0	C	--
	Subtotal	**710**	**702**	**99**	**--**	**34.9**	**C**	**--**
EB	L	350	347	99	2	55.0	D	--
	T	2340	2387	102	5	21.1	C	--
	R	320	321	100	1	6.4	A	--
	Subtotal	**3010**	**3054**	**101**	**--**	**23.4**	**C**	**--**
WB	L	180	179	99	2	86.8	F	--
	T	1800	1806	100	18	65.7	E	--
	R	30	29	97	0	11.6	B	--
	Subtotal	**2010**	**2014**	**100**	**--**	**66.8**	**E**	**--**
	Total	**6690**	**6723**	**100**	**--**	**41.8**	**D**	**--**

CORSIM LEVEL OF SERVICE REPORT
Including Upstream Delays

Project: Weston Ranch Towne Center EIR **HCM:** 2000
Scenario: Year 2035 With Project - Mitigated **PHF:** 1
TOD: AM **# of Runs:** 10

Intersection: Manthey Road / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	70	67	96	3	52.8	D	--
	T	80	76	95	4	47.9	D	--
	R	210	214	102	6	20.5	C	--
	Subtotal	**360**	**357**	**99**	**--**	**32.4**	**C**	**--**
SB	L	770	768	100	11	41.8	D	--
	T	330	302	92	11	32.5	C	--
	R	40	46	115	7	28.0	C	--
	Subtotal	**1140**	**1117**	**98**	**--**	**38.7**	**D**	**--**
EB	L	250	238	95	18	48.4	D	--
	T	1360	1375	101	16	32.9	C	--
	R	80	87	109	6	37.7	D	--
	Subtotal	**1690**	**1701**	**101**	**--**	**35.3**	**D**	**--**
WB	L	300	303	101	7	51.5	D	--
	T	920	932	101	29	23.7	C	--
	R	310	316	102	12	6.7	A	--
	Subtotal	**1530**	**1551**	**101**	**--**	**25.7**	**C**	**--**
	Total	**4720**	**4725**	**100**	**--**	**32.7**	**C**	**--**

Intersection: I-5 SB Ramps / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
SB	L	1430	1404	98	24	30.0	C	--
	R	520	519	100	24	31.2	C	--
	Subtotal	**1950**	**1923**	**99**	**--**	**30.3**	**C**	**--**
EB	T	1400	1419	101	22	25.5	C	--
	R	940	945	101	36	20.7	C	--
	Subtotal	**2340**	**2364**	**101**	**--**	**23.6**	**C**	**--**
WB	T	1010	1023	101	19	24.3	C	--
	Subtotal	**1010**	**1023**	**101**	**--**	**24.3**	**C**	**--**
	Total	**5300**	**5311**	**100**	**--**	**26.2**	**C**	**--**

CORSIM LEVEL OF SERVICE REPORT
Including Upstream Delays

Project: Weston Ranch Towne Center EIR **HCM:** 2000
Scenario: Year 2035 With Project - Mitigated **PHF:** 1
TOD: AM **# of Runs:** 10

Intersection: I-5 NB Ramps / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	330	320	97	8	27.7	C	--
	R	1120	1141	102	10	43.9	D	--
	Subtotal	**1450**	**1460**	**101**	**--**	**40.3**	**D**	**--**
EB	T	1890	1905	101	25	25.8	C	--
	Subtotal	**1890**	**1905**	**101**	**--**	**25.8**	**C**	**--**
WB	T	3180	3213	101	27	24.0	C	--
	Subtotal	**3180**	**3213**	**101**	**--**	**24.0**	**C**	**--**
	Total	**6520**	**6578**	**101**	**--**	**28.2**	**C**	**--**

Intersection: Sperry Road / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	820	831	101	13	55.6	E	--
	T	80	71	89	10	33.1	C	--
	R	60	55	92	6	17.8	B	--
	Subtotal	**960**	**957**	**100**	**--**	**51.8**	**D**	**--**
SB	L	80	83	104	5	48.0	D	--
	T	70	64	91	5	45.9	D	--
	R	560	555	99	4	31.6	C	--
	Subtotal	**710**	**702**	**99**	**--**	**34.9**	**C**	**--**
EB	L	350	359	103	14	54.5	D	--
	T	2340	2375	101	29	21.1	C	--
	R	320	328	103	11	6.5	A	--
	Subtotal	**3010**	**3061**	**102**	**--**	**23.4**	**C**	**--**
WB	L	180	179	99	9	77.2	E	--
	T	1800	1817	101	18	57.8	E	--
	R	30	24	80	7	11.0	B	--
	Subtotal	**2010**	**2020**	**100**	**--**	**59.0**	**E**	**--**
	Total	**6690**	**6739**	**101**	**--**	**39.3**	**D**	**--**

Weston Ranch Towne Center EIR
Future 2035 With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Yettner/Manthey

Cycle (sec): 60 Critical Vol./Cap. (X): 0.508
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 20.0
Optimal Cycle: 50 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	1	1	0	1 0	1	1	0	1 0	0	1	0	1 0	0	1	0
Volume Module:																
Base Vol:	60	250	50		50	440	230		110	50	60		50	100	50	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	60	250	50		50	440	230		110	50	60		50	100	50	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	60	250	50		50	440	230		110	50	60		50	100	50	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	60	250	50		50	440	230		110	50	60		50	100	50	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	60	250	50		50	440	230		110	50	60		50	100	50	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	60	250	50		50	440	230		110	50	60		50	100	50	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.93	0.93		0.95	0.90	0.90		0.95	0.92	0.92		0.95	0.95	0.95	
Lanes:	1.00	1.67	0.33		1.00	1.31	0.69		1.00	0.45	0.55		1.00	0.67	0.33	
Final Sat.:	1805	2933	587		1805	2250	1176		1805	793	951		1805	1203	602	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.09	0.09		0.03	0.20	0.20		0.06	0.06	0.06		0.03	0.08	0.08	
Crit Moves:	****					****			****					****		
Green/Cycle:	0.12	0.26	0.26		0.19	0.33	0.33		0.12	0.17	0.17		0.12	0.17	0.17	
Volume/Cap:	0.28	0.32	0.32		0.15	0.59	0.59		0.52	0.38	0.38		0.24	0.50	0.50	
Delay/Veh:	25.0	17.9	17.9		20.7	17.4	17.4		27.3	23.1	23.1		24.7	24.0	24.0	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	25.0	17.9	17.9		20.7	17.4	17.4		27.3	23.1	23.1		24.7	24.0	24.0	
HCM2kAvg:	1	2	2		1	6	6		3	2	2		1	3	3	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.86		1.00	0.86	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.94		1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	6386		1770	6408	1583	1770	3334		1770	3236	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	6386		1770	6408	1583	1770	3334		1770	3236	
Volume (vph)	120	2180	50	80	1750	140	90	270	170	130	60	80
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	120	2180	50	80	1750	140	90	270	170	130	60	80
RTOR Reduction (vph)	0	2	0	0	0	73	0	94	0	0	73	0
Lane Group Flow (vph)	120	2228	0	80	1750	67	90	346	0	130	67	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)	15.8	65.1		7.8	57.1	57.1	19.9	18.5		12.6	11.2	
Effective Green, g (s)	15.8	65.1		7.8	57.1	57.1	19.9	18.5		12.6	11.2	
Actuated g/C Ratio	0.13	0.54		0.06	0.48	0.48	0.17	0.15		0.10	0.09	
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)	233	3464		115	3049	753	294	514		186	302	
v/s Ratio Prot	0.07	c0.35		c0.05	0.27		0.05	c0.10		c0.07	0.02	
v/s Ratio Perm						0.04						
v/c Ratio	0.52	0.64		0.70	0.57	0.09	0.31	0.67		0.70	0.22	
Uniform Delay, d1	48.5	19.3		54.9	22.7	17.2	44.0	47.9		51.9	50.4	
Progression Factor	1.00	1.00		1.05	0.37	0.34	1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.9	0.9		15.3	0.7	0.2	0.6	3.5		10.9	0.4	
Delay (s)	50.5	20.2		73.2	9.1	6.0	44.6	51.4		62.8	50.7	
Level of Service	D	C		E	A	A	D	D		E	D	
Approach Delay (s)		21.8			11.5			50.2			56.5	
Approach LOS		C			B			D			E	

Intersection Summary			
HCM Average Control Delay	22.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	70.3%	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)		4.0	4.0	4.0	4.0					4.0		4.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.97		0.88
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		5085	1583	1770	3539					3433		2787
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		5085	1583	1770	3539					3433		2787
Volume (vph)	0	2060	420	400	1510	0	0	0	0	400	0	460
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	2060	420	400	1510	0	0	0	0	400	0	460
RTOR Reduction (vph)	0	0	170	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	2060	250	400	1510	0	0	0	0	400	0	460
Turn Type			Perm	Prot						Prot		Free
Protected Phases		4		3	8					1		
Permitted Phases			4									Free
Actuated Green, G (s)		60.7	60.7	30.2	94.9					17.1		120.0
Effective Green, g (s)		60.7	60.7	30.2	94.9					17.1		120.0
Actuated g/C Ratio		0.51	0.51	0.25	0.79					0.14		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)		2572	801	445	2799					489		2787
v/s Ratio Prot		c0.41		c0.23	0.43					c0.12		
v/s Ratio Perm			0.16									0.17
v/c Ratio		0.80	0.31	0.90	0.54					0.82		0.17
Uniform Delay, d1		24.6	17.4	43.4	4.6					49.9		0.0
Progression Factor		0.45	0.19	0.97	0.54					1.00		1.00
Incremental Delay, d2		2.2	0.8	2.5	0.1					10.2		0.1
Delay (s)		13.3	4.1	44.7	2.5					60.2		0.1
Level of Service		B	A	D	A					E		A
Approach Delay (s)		11.7			11.4			0.0			28.1	
Approach LOS		B			B			A			C	

Intersection Summary			
HCM Average Control Delay	14.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	107.1%	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)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	0.97	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)	3433	3539			3539	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	3539			3539	1583	3433		1583			
Volume (vph)	1330	1130	0	0	1205	340	705	0	840	0	0	0
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1330	1130	0	0	1205	340	705	0	840	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	177	0	0	0	0	0	0
Lane Group Flow (vph)	1330	1130	0	0	1205	163	705	0	840	0	0	0
Turn Type	Prot					Perm	Prot		Free			
Protected Phases	7	4			8		5					
Permitted Phases						8			Free			
Actuated Green, G (s)	45.0	88.0			39.0	39.0	24.0		120.0			
Effective Green, g (s)	45.0	88.0			39.0	39.0	24.0		120.0			
Actuated g/C Ratio	0.38	0.73			0.32	0.32	0.20		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)	1287	2595			1150	514	687		1583			
v/s Ratio Prot	c0.39	0.32			c0.34		c0.21					
v/s Ratio Perm						0.10			0.53			
v/c Ratio	1.03	0.44			1.05	0.32	1.03		0.53			
Uniform Delay, d1	37.5	6.3			40.5	30.5	48.0		0.0			
Progression Factor	0.65	0.63			1.00	1.00	1.00		1.00			
Incremental Delay, d2	28.3	0.3			40.0	1.6	41.2		1.3			
Delay (s)	52.6	4.2			80.5	32.1	89.2		1.3			
Level of Service	D	A			F	C	F		A			
Approach Delay (s)		30.4			69.8			41.4			0.0	
Approach LOS		C			E			D			A	

Intersection Summary			
HCM Average Control Delay	44.4	HCM Level of Service	D
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	107.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Weston Ranch Towne Center EIR
Future 2035 With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #20 Howard/Wolfe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.937
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 44.0
Optimal Cycle: 120 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	2	0	1	1 0	2	0	1	1 0	1	1	0	1 0	1	1	0
Volume Module:																
Base Vol:	60	220	870		100	300	70		50	390	60		390	290	70	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	60	220	870		100	300	70		50	390	60		390	290	70	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	60	220	870		100	300	70		50	390	60		390	290	70	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	60	220	870		100	300	70		50	390	60		390	290	70	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	60	220	870		100	300	70		50	390	60		390	290	70	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	60	220	870		100	300	70		50	390	60		390	290	70	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.85		0.95	0.95	0.85		0.95	0.93	0.93		0.95	0.92	0.92	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	1.73	0.27		1.00	1.61	0.39	
Final Sat.:	1805	3610	1615		1805	3610	1615		1805	3066	472		1805	2824	682	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.06	0.54		0.06	0.08	0.04		0.03	0.13	0.13		0.22	0.10	0.10	
Crit Moves:			****		****					****			****			
Green/Cycle:	0.26	0.57	0.57		0.07	0.38	0.38		0.15	0.13	0.13		0.23	0.22	0.22	
Volume/Cap:	0.13	0.11	0.95		0.79	0.22	0.12		0.19	0.95	0.95		0.95	0.48	0.48	
Delay/Veh:	28.2	10.0	38.7		73.6	21.4	20.5		37.8	71.6	71.6		69.4	34.8	34.8	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	28.2	10.0	38.7		73.6	21.4	20.5		37.8	71.6	71.6		69.4	34.8	34.8	
HCM2kAvg:	1	2	31		5	3	1		2	11	11		17	5	5	

Weston Ranch Towne Center EIR
Future 2035 With Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 French Camp Road/Secondary Driveway

Cycle (sec): 60 Critical Vol./Cap. (X): 0.384
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 12.4
Optimal Cycle: 49 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0 0	0	0	0	1 0	0	0	1	1 0	3	0	0	0 0	2	1	0
Volume Module:																
Base Vol:	0	0	0		98	0	19		35	1592	0		0	865	25	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		98	0	19		35	1592	0		0	865	25	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		98	0	19		35	1592	0		0	865	25	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	0	0		98	0	19		35	1592	0		0	865	25	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		98	0	19		35	1592	0		0	865	25	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	0	0	0		98	0	19		35	1592	0		0	865	25	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.95	1.00	0.85		0.95	0.91	1.00		1.00	0.91	0.91	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	3.00	0.00		0.00	2.92	0.08	
Final Sat.:	0	0	0		1805	0	1615		1805	5187	0		0	5021	145	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.05	0.00	0.01		0.02	0.31	0.00		0.00	0.17	0.17	
Crit Moves:						****				****			****			
Green/Cycle:	0.00	0.00	0.00		0.17	0.00	0.17		0.26	0.52	0.00		0.00	0.38	0.38	
Volume/Cap:	0.00	0.00	0.00		0.33	0.00	0.07		0.08	0.59	0.00		0.00	0.46	0.46	
Delay/Veh:	0.0	0.0	0.0		22.7	0.0	21.2		17.0	10.5	0.0		0.0	14.2	14.2	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	0.0		22.7	0.0	21.2		17.0	10.5	0.0		0.0	14.2	14.2	
HCM2kAvg:	0	0	0		2	0	0		1	8	0		0	5	5	

Weston Ranch Towne Center EIR
Future 2035 With Project
PM Peak Hour

Scenario Report

Scenario:	Cumulative PM
Command:	Cumulative PM
Volume:	Cumulative PM
Geometry:	Cumulative
Impact Fee:	Default Impact Fee
Trip Generation:	No Project
Trip Distribution:	Peak Hour
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Weston Ranch Towne Center EIR
Future 2035 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Carolyn Weston/McDougald

Cycle (sec): 120 Critical Vol./Cap. (X): 0.861
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 42.1
Optimal Cycle: 112 Level Of Service: D

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Protected						Protected						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	7		10		10		7		10		10		7		10		10		7		10		10	
Lanes:	1	0	1	0	1		1	0	0	1	0		1	0	1	1	0		1	0	1	1	0	
Volume Module:																								
Base Vol:	170		60		300		100		60		20		60		1080		90		320		940		70	
Growth Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	170		60		300		100		60		20		60		1080		90		320		940		70	
Added Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	170		60		300		100		60		20		60		1080		90		320		940		70	
User Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Volume:	170		60		300		100		60		20		60		1080		90		320		940		70	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	170		60		300		100		60		20		60		1080		90		320		940		70	
PCE Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
MLF Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Final Vol.:	170		60		300		100		60		20		60		1080		90		320		940		70	
Saturation Flow Module:																								
Sat/Lane:	1900		1900		1900		1900		1900		1900		1900		1900		1900		1900		1900		1900	
Adjustment:	0.95		1.00		0.85		0.95		0.96		0.96		0.95		0.94		0.94		0.95		0.94		0.94	
Lanes:	1.00		1.00		1.00		1.00		0.75		0.25		1.00		1.85		0.15		1.00		1.86		0.14	
Final Sat.:	1805		1900		1615		1805		1372		457		1805		3292		274		1805		3326		248	
Capacity Analysis Module:																								
Vol/Sat:	0.09		0.03		0.19		0.06		0.04		0.04		0.03		0.33		0.33		0.18		0.28		0.28	
Crit Moves:					****		****								****				****					
Green/Cycle:	0.15		0.22		0.22		0.06		0.13		0.13		0.10		0.38		0.38		0.21		0.49		0.49	
Volume/Cap:	0.63		0.15		0.86		0.86		0.33		0.33		0.33		0.86		0.86		0.86		0.58		0.58	
Delay/Veh:	52.9		38.3		64.5		99.6		48.2		48.2		51.3		40.1		40.1		64.1		22.6		22.6	
User DelAdj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
AdjDel/Veh:	52.9		38.3		64.5		99.6		48.2		48.2		51.3		40.1		40.1		64.1		22.6		22.6	
HCM2kAvg:	7		2		13		6		3		3		2		22		22		15		13		13	

Weston Ranch Towne Center EIR
Future 2035 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Carolyn Weston/S. Manthey

Cycle (sec): 120 Critical Vol./Cap. (X): 0.817
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 45.0
Optimal Cycle: 97 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Ovl				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	2 0	1		1 0	2 0	1		1 0	1 1	0		2 0	1 1	0	
Volume Module:																
Base Vol:	250	140	420		240	120	220		250	1130	100		670	860	200	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	250	140	420		240	120	220		250	1130	100		670	860	200	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	250	140	420		240	120	220		250	1130	100		670	860	200	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	250	140	420		240	120	220		250	1130	100		670	860	200	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	250	140	420		240	120	220		250	1130	100		670	860	200	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	250	140	420		240	120	220		250	1130	100		670	860	200	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.85		0.95	0.95	0.85		0.95	0.94	0.94		0.92	0.92	0.92	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	1.84	0.16		2.00	1.62	0.38	
Final Sat.:	1805	3610	1615		1805	3610	1615		1805	3277	290		3502	2847	662	
Capacity Analysis Module:																
Vol/Sat:	0.14	0.04	0.26		0.13	0.03	0.14		0.14	0.34	0.34		0.19	0.30	0.30	
Crit Moves:	****					****				****			****			
Green/Cycle:	0.16	0.09	0.32		0.15	0.08	0.28		0.20	0.40	0.40		0.22	0.43	0.43	
Volume/Cap:	0.86	0.41	0.82		0.89	0.40	0.49		0.71	0.86	0.86		0.86	0.71	0.71	
Delay/Veh:	71.2	52.0	48.3		77.5	53.0	36.9		51.5	38.5	38.5		54.6	29.8	29.8	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	71.2	52.0	48.3		77.5	53.0	36.9		51.5	38.5	38.5		54.6	29.8	29.8	
HCM2kAvg:	12	3	16		12	3	7		10	23	23		15	17	17	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95						1.00	0.88
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		5085	1583	1770	3539						1770	2787
Flt Permitted		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (perm)		5085	1583	1770	3539						1770	2787
Volume (vph)	0	1580	210	120	690	0	0	0	0	420	0	1060
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1580	210	120	690	0	0	0	0	420	0	1060
RTOR Reduction (vph)	0	0	124	0	0	0	0	0	0	0	0	236
Lane Group Flow (vph)	0	1580	86	120	690	0	0	0	0	0	420	824
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		32.7	32.7	8.1	44.8						27.2	27.2
Effective Green, g (s)		32.7	32.7	8.1	44.8						27.2	27.2
Actuated g/C Ratio		0.41	0.41	0.10	0.56						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)		2078	647	179	1982						602	948
v/s Ratio Prot		c0.31		c0.07	0.19							
v/s Ratio Perm			0.05								0.24	c0.30
v/c Ratio		0.76	0.13	0.67	0.35						0.70	0.87
Uniform Delay, d1		20.3	14.8	34.7	9.6						22.8	24.7
Progression Factor		1.00	1.00	0.67	1.13						1.00	1.00
Incremental Delay, d2		2.7	0.4	4.5	0.2						3.5	8.5
Delay (s)		23.0	15.2	27.7	11.1						26.4	33.3
Level of Service		C	B	C	B						C	C
Approach Delay (s)		22.1			13.5			0.0			31.3	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM Average Control Delay	23.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	116.0%	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)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	0.97	1.00			0.95			1.00	1.00			
Frt	1.00	1.00			0.93			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (prot)	3433	1863			3298			1770	1583			
Flt Permitted	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (perm)	3433	1863			3298			1770	1583			
Volume (vph)	1470	530	0	0	480	400	330	0	90	0	0	0
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1470	530	0	0	480	400	330	0	90	0	0	0
RTOR Reduction (vph)	0	0	0	0	183	0	0	0	70	0	0	0
Lane Group Flow (vph)	1470	530	0	0	697	0	0	330	20	0	0	0
Turn Type	Prot						Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	32.0	54.4			18.4			17.6	17.6			
Effective Green, g (s)	32.0	54.4			18.4			17.6	17.6			
Actuated g/C Ratio	0.40	0.68			0.23			0.22	0.22			
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)	1373	1267			759			389	348			
v/s Ratio Prot	c0.43	0.28			c0.21							
v/s Ratio Perm								0.19	0.01			
v/c Ratio	1.07	0.42			0.92			0.85	0.06			
Uniform Delay, d1	24.0	5.7			30.1			29.9	24.6			
Progression Factor	0.51	0.26			1.00			1.00	1.00			
Incremental Delay, d2	41.9	0.7			17.9			15.7	0.1			
Delay (s)	54.3	2.2			47.9			45.6	24.7			
Level of Service	D	A			D			D	C			
Approach Delay (s)		40.5			47.9			41.1			0.0	
Approach LOS		D			D			D			A	

Intersection Summary			
HCM Average Control Delay	42.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	116.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Downing/Turnpike

Average Delay (sec/veh): 308.4 Worst Case Level Of Service: F[1406.6]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	1!	0	0		0	0	1!	0	0		1	0	0	1	0		1	0	0	1	0	
Volume Module:																								
Base Vol:	280		20		60		60		10		150		180		300		140		60		400		60	
Growth Adj:	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00
Initial Bse:	280		20		60		60		10		150		180		300		140		60		400		60	
Added Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	280		20		60		60		10		150		180		300		140		60		400		60	
User Adj:	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00
PHF Adj:	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00
PHF Volume:	280		20		60		60		10		150		180		300		140		60		400		60	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Final Vol.:	280		20		60		60		10		150		180		300		140		60		400		60	
Critical Gap Module:																								
Critical Gp:	7.1		6.5		6.2		7.1		6.5		6.2		4.1	xxxx	xxxxx				4.1	xxxx	xxxxx			
FollowUpTim:	3.5		4.0		3.3		3.5		4.0		3.3		2.2	xxxx	xxxxx				2.2	xxxx	xxxxx			
Capacity Module:																								
Cnflict Vol:	1360	1310		370		1320	1350		430		460	xxxx	xxxxx				440	xxxx	xxxxx					
Potent Cap.:	127		160		680		135		152		629	1112	xxxx	xxxxx			1131	xxxx	xxxxx					
Move Cap.:	76		127		680		92		121		629	1112	xxxx	xxxxx			1131	xxxx	xxxxx					
Volume/Cap:	3.67	0.16		0.09		0.65	0.08		0.24		0.16	xxxx		xxxx			0.05	xxxx		xxxx				
Level Of Service Module:																								
Queue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx				0.6	xxxx	xxxxx			0.2	xxxx	xxxxx					
Stopped Del:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx				8.9	xxxx	xxxxx			8.4	xxxx	xxxxx					
LOS by Move:	*		*		*		*		*		*	A		*		*	A		*		*			
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT			
Shared Cap.:	xxxx		92	xxxxx		xxxx		225	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx					
SharedQueue:	xxxxx		37.1	xxxxx		xxxxx		8.8	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx					
Shrd StpDel:	xxxxx		1407	xxxxx		xxxxx		99.6	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx					
Shared LOS:	*		F		*		*		F		*	*		*		*	*		*		*			
ApproachDel:			1406.6						99.6					xxxxxx					xxxxxx					
ApproachLOS:			F						F					*					*					

Weston Ranch Towne Center EIR
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 William Moss/McDougald

Cycle (sec): 60 Critical Vol./Cap. (X): 0.579
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 23.4
Optimal Cycle: 50 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	1	1	0	1 0	1	1	0	1 0	1	1	0	1 0	1	1	0
Volume Module:																
Base Vol:	60	680	160		140	240	460		30	150	70		80	150	60	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	60	680	160		140	240	460		30	150	70		80	150	60	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	60	680	160		140	240	460		30	150	70		80	150	60	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	60	680	160		140	240	460		30	150	70		80	150	60	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	60	680	160		140	240	460		30	150	70		80	150	60	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	60	680	160		140	240	460		30	150	70		80	150	60	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.92	0.92		0.95	0.86	0.86		0.95	0.90	0.90		0.95	0.91	0.91	
Lanes:	1.00	1.62	0.38		1.00	1.00	1.00		1.00	1.36	0.64		1.00	1.43	0.57	
Final Sat.:	1805	2841	668		1805	1626	1626		1805	2343	1094		1805	2468	987	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.24	0.24		0.08	0.15	0.28		0.02	0.06	0.06		0.04	0.06	0.06	
Crit Moves:	****						****			****			****			
Green/Cycle:	0.12	0.30	0.30		0.15	0.33	0.33		0.12	0.17	0.17		0.12	0.17	0.17	
Volume/Cap:	0.28	0.79	0.79		0.53	0.44	0.85		0.14	0.38	0.38		0.38	0.36	0.36	
Delay/Veh:	25.0	23.3	23.3		25.6	15.8	26.9		24.1	22.7	22.7		25.6	22.6	22.6	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	25.0	23.3	23.3		25.6	15.8	26.9		24.1	22.7	22.7		25.6	22.6	22.6	
HCM2kAvg:	1	10	10		3	4	11		1	2	2		2	2	2	

Weston Ranch Towne Center EIR
Future 2035 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 William Moss/S. Manthey

Cycle (sec): 60 Critical Vol./Cap. (X): 0.488
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 14.9
Optimal Cycle: 46 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	2	0	0	0 0	1	1	0	1 0	0	0	1	0 0	0	0	0
Volume Module:																
Base Vol:	130	530	0		0	460	130		270	0	180		0	0	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	130	530	0		0	460	130		270	0	180		0	0	0	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	130	530	0		0	460	130		270	0	180		0	0	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	130	530	0		0	460	130		270	0	180		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	130	530	0		0	460	130		270	0	180		0	0	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	130	530	0		0	460	130		270	0	180		0	0	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	1.00		1.00	0.92	0.92		0.95	1.00	0.85		1.00	1.00	1.00	
Lanes:	1.00	2.00	0.00		0.00	1.56	0.44		1.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	1805	3610	0		0	2722	769		1805	0	1615		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.15	0.00		0.00	0.17	0.17		0.15	0.00	0.11		0.00	0.00	0.00	
Crit Moves:	****					****			****							
Green/Cycle:	0.15	0.49	0.00		0.00	0.35	0.35		0.31	0.00	0.28		0.00	0.00	0.00	
Volume/Cap:	0.49	0.30	0.00		0.00	0.49	0.49		0.49	0.00	0.40		0.00	0.00	0.00	
Delay/Veh:	24.9	9.1	0.0		0.0	15.7	15.7		17.7	0.0	18.2		0.0	0.0	0.0	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	24.9	9.1	0.0		0.0	15.7	15.7		17.7	0.0	18.2		0.0	0.0	0.0	
HCM2kAvg:	3	3	0		0	5	5		5	0	3		0	0	0	

Weston Ranch Towne Center EIR
Future 2035 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8 McDougald/Henry Long

Cycle (sec): 100 Critical Vol./Cap. (X): 0.484
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 11.8
Optimal Cycle: 0 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	1! 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	100	630	0	0	130	100	90	0	160	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	100	630	0	0	130	100	90	0	160	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	100	630	0	0	130	100	90	0	160	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	100	630	0	0	130	100	90	0	160	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	630	0	0	130	100	90	0	160	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	100	630	0	0	130	100	90	0	160	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.13	0.87	0.36	0.00	0.64	0.00	0.00	0.00
Final Sat.:	595	1300	0	0	659	555	230	0	410	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.17	0.48	xxxx	xxxx	0.20	0.18	0.39	xxxx	0.39	xxxx	xxxx	xxxx
Crit Moves:		****			****				****			
Delay/Veh:	9.8	13.0	0.0	0.0	10.0	9.2	11.6	0.0	11.6	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.8	13.0	0.0	0.0	10.0	9.2	11.6	0.0	11.6	0.0	0.0	0.0
LOS by Move:	A	B	*	*	B	A	B	*	B	*	*	*
ApproachDel:	12.6			9.7			11.6			xxxxxx		
Delay Adj:	1.00			1.00			1.00			xxxxx		
ApprAdjDel:	12.6			9.7			11.6			xxxxxx		
LOS by Appr:	B			A			B			*		

Weston Ranch Towne Center EIR
Future 2035 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Manthey/Henry Long

Average Delay (sec/veh): 18.1 Worst Case Level Of Service: C[24.5]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 0	0	0 0	0 0	0	1 1	0 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	0	0	0	0	0	260	740	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	260	740	0	0	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	260	740	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	260	740	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	0	0	260	740	0	0	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	900	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	900	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.82	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	24.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	C	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			24.5			xxxxxx		
ApproachLOS:	*			*			C			*		

Weston Ranch Towne Center EIR
Future 2035 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 French Camp/Wolfe

Cycle (sec): 90 Critical Vol./Cap. (X): 0.730
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 31.5
Optimal Cycle: 71 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Ovl			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	1 1	0		1 0	1 1	0		1 0	2 1	0		1 0	2 1	0	
Volume Module:																
Base Vol:	120	660	190		230	700	60		60	440	60		210	640	350	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	120	660	190		230	700	60		60	440	60		210	640	350	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	120	660	190		230	700	60		60	440	60		210	640	350	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	120	660	190		230	700	60		60	440	60		210	640	350	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	120	660	190		230	700	60		60	440	60		210	640	350	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	120	660	190		230	700	60		60	440	60		210	640	350	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.92	0.92		0.95	0.94	0.94		0.95	0.89	0.89		0.95	0.86	0.86	
Lanes:	1.00	1.55	0.45		1.00	1.84	0.16		1.00	2.64	0.36		1.00	2.00	1.00	
Final Sat.:	1805	2708	780		1805	3285	282		1805	4482	611		1805	3275	1637	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.24	0.24		0.13	0.21	0.21		0.03	0.10	0.10		0.12	0.20	0.21	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.13	0.32	0.32		0.17	0.36	0.36		0.08	0.16	0.16		0.17	0.26	0.42	
Volume/Cap:	0.51	0.76	0.76		0.76	0.60	0.60		0.43	0.60	0.60		0.68	0.76	0.50	
Delay/Veh:	38.3	30.6	30.6		46.5	24.4	24.4		41.7	36.2	36.2		41.0	33.6	19.2	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	38.3	30.6	30.6		46.5	24.4	24.4		41.7	36.2	36.2		41.0	33.6	19.2	
HCM2kAvg:	4	12	12		8	9	9		2	5	5		7	10	7	

Weston Ranch Towne Center EIR
Future 2035 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 French Camp/McDougald

Cycle (sec): 90 Critical Vol./Cap. (X): 0.526
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: 49 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0 0	0 0	0		1 0	0 0	1		1 0	3 0	0		0 0	2 1	0	
Volume Module:																
Base Vol:	0	0	0		180	0	250		40	820	0		0	950	430	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		180	0	250		40	820	0		0	950	430	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		180	0	250		40	820	0		0	950	430	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	0	0		180	0	250		40	820	0		0	950	430	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		180	0	250		40	820	0		0	950	430	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	0	0	0		180	0	250		40	820	0		0	950	430	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.95	1.00	0.85		0.95	0.91	1.00		1.00	0.87	0.87	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	3.00	0.00		0.00	2.07	0.93	
Final Sat.:	0	0	0		1805	0	1615		1805	5187	0		0	3403	1540	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.10	0.00	0.15		0.02	0.16	0.00		0.00	0.28	0.28	
Crit Moves:							****		****					****		
Green/Cycle:	0.00	0.00	0.00		0.28	0.00	0.28		0.08	0.59	0.00		0.00	0.51	0.51	
Volume/Cap:	0.00	0.00	0.00		0.35	0.00	0.55		0.28	0.27	0.00		0.00	0.55	0.55	
Delay/Veh:	0.0	0.0	0.0		26.2	0.0	28.9		40.3	9.2	0.0		0.0	15.4	15.4	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	0.0		26.2	0.0	28.9		40.3	9.2	0.0		0.0	15.4	15.4	
HCM2kAvg:	0	0	0		4	0	6		1	4	0		0	9	9	

CORSIM LEVEL OF SERVICE REPORT
Including Upstream Delays

Project: Weston Ranch Towne Center EIR **HCM:** 2000
Scenario: Year 2035 With Project **PHF:** 1
TOD: PM **# of Runs:** 10

Intersection: Manthey Road / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	80	73	91	8	58.4	E	--
	T	540	529	98	23	51.2	D	--
	R	330	350	106	24	9.5	A	--
	Subtotal	**950**	**952**	**100**	**--**	**36.5**	**D**	**--**
SB	L	950	931	98	19	52.7	D	--
	T	240	234	98	5	25.4	C	--
	R	100	103	103	13	21.7	C	--
	Subtotal	**1290**	**1268**	**98**	**--**	**45.2**	**D**	**--**
EB	L	240	237	99	10	118.3	F	--
	T	720	727	101	11	42.4	D	--
	R	60	63	105	9	43.2	D	--
	Subtotal	**1020**	**1027**	**101**	**--**	**60.0**	**E**	**--**
WB	L	520	520	100	18	90.1	F	--
	T	1620	1579	97	22	90.7	F	--
	R	1000	975	98	33	36.6	D	--
	Subtotal	**3140**	**3074**	**98**	**--**	**73.5**	**E**	**--**
	Total	**6400**	**6321**	**99**	**--**	**60.0**	**E**	**--**

Intersection: I-5 SB Ramps / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
SB	L	1500	1368	91	45	92.5	F	--
	R	1030	948	92	31	147.6	F	--
	Subtotal	**2530**	**2316**	**92**	**--**	**115.0**	**F**	**--**
EB	T	1650	1400	85	29	13.7	B	--
	R	700	607	87	19	10.2	B	--
	Subtotal	**2350**	**2006**	**85**	**--**	**12.7**	**B**	**--**
WB	T	2190	2122	97	15	44.2	D	--
	Subtotal	**2190**	**2122**	**97**	**--**	**44.2**	**D**	**--**
	Total	**7070**	**6445**	**91**	**--**	**59.8**	**E**	**--**

CORSIM LEVEL OF SERVICE REPORT
Including Upstream Delays

Project: Weston Ranch Towne Center EIR **HCM:** 2000
Scenario: Year 2035 With Project **PHF:** 1
TOD: PM **# of Runs:** 10

Intersection: I-5 NB Ramps / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	850	857	101	8	41.6	D	--
	R	1010	1010	100	11	55.0	E	--
	Subtotal	**1860**	**1867**	**100**	**--**	**48.9**	**D**	**--**
EB	T	2280	2020	89	51	20.8	C	--
	Subtotal	**2280**	**2020**	**89**	**--**	**20.8**	**C**	**--**
WB	T	3750	3673	98	36	27.8	C	--
	Subtotal	**3750**	**3673**	**98**	**--**	**27.8**	**C**	**--**
	Total	**7890**	**7561**	**96**	**--**	**31.1**	**C**	**--**

Intersection: Sperry Road / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	680	672	99	17	68.4	E	--
	T	100	92	92	12	39.0	D	--
	R	60	55	92	7	21.0	C	--
	Subtotal	**840**	**819**	**98**	**--**	**61.9**	**E**	**--**
SB	L	110	111	101	7	59.0	E	--
	T	130	123	95	9	55.4	E	--
	R	630	640	102	10	42.7	D	--
	Subtotal	**870**	**874**	**100**	**--**	**46.6**	**D**	**--**
EB	L	300	259	86	12	67.2	E	--
	T	2150	2010	93	54	25.9	C	--
	R	840	776	92	27	10.1	B	--
	Subtotal	**3290**	**3044**	**93**	**--**	**25.4**	**C**	**--**
WB	L	140	130	93	8	152.0	F	--
	T	2440	2381	98	34	95.7	F	--
	R	80	79	99	7	27.3	C	--
	Subtotal	**2660**	**2589**	**97**	**--**	**96.5**	**F**	**--**
	Total	**7660**	**7327**	**96**	**--**	**57.1**	**E**	**--**

CORSIM LEVEL OF SERVICE REPORT
Including Upstream Delays

Project: Weston Ranch Towne Center EIR **HCM:** 2000
Scenario: Year 2035 With Project - Mitigated **PHF:** 1
TOD: PM **# of Runs:** 10

Intersection: Manthey Road / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	80	75	94	7	58.2	E	--
	T	540	503	93	16	49.8	D	--
	R	330	357	108	18	16.1	B	--
	Subtotal	**950**	**935**	**98**	**--**	**37.6**	**D**	**--**
SB	L	950	954	100	24	51.9	D	--
	T	240	245	102	17	30.3	C	--
	R	100	104	104	10	23.0	C	--
	Subtotal	**1290**	**1303**	**101**	**--**	**45.5**	**D**	**--**
EB	L	240	242	101	14	83.2	F	--
	T	720	726	101	17	38.8	D	--
	R	60	58	97	6	39.5	D	--
	Subtotal	**1020**	**1026**	**101**	**--**	**49.3**	**D**	**--**
WB	L	520	532	102	18	66.9	E	--
	T	1620	1650	102	18	48.8	D	--
	R	1000	1011	101	25	16.7	B	--
	Subtotal	**3140**	**3193**	**102**	**--**	**41.7**	**D**	**--**
	Total	**6400**	**6456**	**101**	**--**	**43.1**	**D**	**--**

Intersection: I-5 SB Ramps / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
SB	L	1500	1507	100	10	41.8	D	--
	R	1030	1046	102	10	61.3	E	--
	Subtotal	**2530**	**2553**	**101**	**--**	**49.8**	**D**	**--**
EB	T	1650	1398	85	30	35.3	D	--
	R	700	600	86	23	13.3	B	--
	Subtotal	**2350**	**1997**	**85**	**--**	**28.7**	**C**	**--**
WB	T	2190	2129	97	12	40.5	D	--
	Subtotal	**2190**	**2129**	**97**	**--**	**40.5**	**D**	**--**
	Total	**7070**	**6680**	**94**	**--**	**40.5**	**D**	**--**

CORSIM LEVEL OF SERVICE REPORT
Including Upstream Delays

Project: Weston Ranch Towne Center EIR **HCM:** 2000
Scenario: Year 2035 With Project - Mitigated **PHF:** 1
TOD: PM **# of Runs:** 10

Intersection: I-5 NB Ramps / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	850	851	100	19	39.3	D	--
	R	1010	1014	100	19	50.9	D	--
	Subtotal	**1860**	**1865**	**100**	**--**	**45.6**	**D**	**--**
EB	T	2280	2152	94	13	20.7	C	--
	Subtotal	**2280**	**2152**	**94**	**--**	**20.7**	**C**	**--**
WB	T	3750	3699	99	58	24.9	C	--
	Subtotal	**3750**	**3699**	**99**	**--**	**24.9**	**C**	**--**
	Total	**7890**	**7715**	**98**	**--**	**28.7**	**C**	**--**

Intersection: Sperry Road / French Camp Road **Type:** Signalized

Approach	Movement	Demand Volume	Volume Served			Delay/Veh (sec)		
			Avg	%	Std Dev	Avg	LOS	Std Dev
NB	L	680	670	99	14	77.0	E	--
	T	100	90	90	7	38.8	D	--
	R	60	54	90	3	20.8	C	--
	Subtotal	**840**	**814**	**97**	**--**	**69.0**	**E**	**--**
SB	L	110	110	100	9	58.7	E	--
	T	130	121	92	11	54.3	D	--
	R	630	645	102	17	42.3	D	--
	Subtotal	**870**	**875**	**101**	**--**	**46.0**	**D**	**--**
EB	L	300	269	90	10	66.7	E	--
	T	2150	2094	97	42	28.6	C	--
	R	840	816	97	42	11.8	B	--
	Subtotal	**3290**	**3180**	**97**	**--**	**27.5**	**C**	**--**
WB	L	140	136	97	9	115.3	F	--
	T	2440	2407	99	36	73.7	E	--
	R	80	82	103	7	25.0	C	--
	Subtotal	**2660**	**2624**	**99**	**--**	**74.3**	**E**	**--**
	Total	**7660**	**7493**	**98**	**--**	**50.6**	**D**	**--**

Weston Ranch Towne Center EIR
Future 2035 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Yettner/Manthey

Cycle (sec): 60 Critical Vol./Cap. (X): 0.691
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 29.7
Optimal Cycle: 58 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	1 1	0		1 0	1 1	0		1 0	0 1	0		1 0	0 1	0	
Volume Module:																
Base Vol:	60	600	50		50	520	250		300	100	60		50	100	50	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	60	600	50		50	520	250		300	100	60		50	100	50	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	60	600	50		50	520	250		300	100	60		50	100	50	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	60	600	50		50	520	250		300	100	60		50	100	50	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	60	600	50		50	520	250		300	100	60		50	100	50	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	60	600	50		50	520	250		300	100	60		50	100	50	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.94	0.94		0.95	0.90	0.90		0.95	0.94	0.94		0.95	0.95	0.95	
Lanes:	1.00	1.85	0.15		1.00	1.35	0.65		1.00	0.62	0.38		1.00	0.67	0.33	
Final Sat.:	1805	3292	274		1805	2318	1115		1805	1121	673		1805	1203	602	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.18	0.18		0.03	0.22	0.22		0.17	0.09	0.09		0.03	0.08	0.08	
Crit Moves:	****					****			****					****		
Green/Cycle:	0.12	0.23	0.23		0.15	0.26	0.26		0.19	0.21	0.21		0.15	0.17	0.17	
Volume/Cap:	0.28	0.80	0.80		0.19	0.87	0.87		0.87	0.42	0.42		0.19	0.50	0.50	
Delay/Veh:	25.0	27.3	27.3		22.8	30.4	30.4		43.6	21.3	21.3		22.8	24.0	24.0	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	25.0	27.3	27.3		22.8	30.4	30.4		43.6	21.3	21.3		22.8	24.0	24.0	
HCM2kAvg:	1	8	8		1	10	10		9	3	3		1	3	3	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.86		1.00	0.86	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.93		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	6383		1770	6408	1583	1770	3289		1770	3274	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	6383		1770	6408	1583	1770	3289		1770	3274	
Volume (vph)	290	2260	60	80	2380	150	60	90	80	130	80	80
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	290	2260	60	80	2380	150	60	90	80	130	80	80
RTOR Reduction (vph)	0	2	0	0	0	54	0	72	0	0	70	0
Lane Group Flow (vph)	290	2318	0	80	2380	96	60	98	0	130	90	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)	19.0	73.8		8.0	62.8	62.8	7.0	12.4		9.8	15.2	
Effective Green, g (s)	19.0	73.8		8.0	62.8	62.8	7.0	12.4		9.8	15.2	
Actuated g/C Ratio	0.16	0.61		0.07	0.52	0.52	0.06	0.10		0.08	0.13	
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)	280	3926		118	3354	828	103	340		145	415	
v/s Ratio Prot	c0.16	0.36		0.05	c0.37		c0.03	c0.03		c0.07	0.03	
v/s Ratio Perm						0.06						
v/c Ratio	1.04	0.59		0.68	0.71	0.12	0.58	0.29		0.90	0.22	
Uniform Delay, d1	50.5	14.0		54.7	21.7	14.5	55.1	49.7		54.6	47.1	
Progression Factor	1.00	1.00		1.03	0.76	0.45	1.00	1.00		1.00	1.00	
Incremental Delay, d2	63.4	0.7		12.4	1.1	0.2	8.1	0.5		45.1	0.3	
Delay (s)	113.9	14.6		68.5	17.5	6.8	63.2	50.2		99.6	47.3	
Level of Service	F	B		E	B	A	E	D		F	D	
Approach Delay (s)		25.6			18.5			53.6			70.8	
Approach LOS		C			B			D			E	

Intersection Summary			
HCM Average Control Delay	25.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	76.1%	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)		4.0	4.0	4.0	4.0					4.0		4.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.97		0.88
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		5085	1583	1770	3539					3433		2787
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		5085	1583	1770	3539					3433		2787
Volume (vph)	0	1810	660	500	810	0	0	0	0	640	0	1800
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1810	660	500	810	0	0	0	0	640	0	1800
RTOR Reduction (vph)	0	0	316	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1810	344	500	810	0	0	0	0	640	0	1800
Turn Type			Perm	Prot						Prot		Free
Protected Phases		4		3	8					1		
Permitted Phases			4									Free
Actuated Green, G (s)		46.7	46.7	36.9	87.6					24.4		120.0
Effective Green, g (s)		46.7	46.7	36.9	87.6					24.4		120.0
Actuated g/C Ratio		0.39	0.39	0.31	0.73					0.20		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)		1979	616	544	2583					698		2787
v/s Ratio Prot		c0.36		c0.28	0.23					c0.19		
v/s Ratio Perm			0.22									0.65
v/c Ratio		0.91	0.56	0.92	0.31					0.92		0.65
Uniform Delay, d1		34.8	28.6	40.1	5.7					46.8		0.0
Progression Factor		0.64	1.13	0.99	0.02					1.00		1.00
Incremental Delay, d2		6.7	3.0	17.2	0.2					16.8		1.2
Delay (s)		29.0	35.3	56.9	0.4					63.6		1.2
Level of Service		C	D	E	A					E		A
Approach Delay (s)		30.7			22.0			0.0			17.5	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM Average Control Delay	23.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	96.8%	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)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	0.97	0.95			0.95	1.00	1.00		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)	3433	3539			3539	1583	1770		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	3539			3539	1583	1770		1583			
Volume (vph)	550	1900	0	0	1050	680	260	0	930	0	0	0
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	550	1900	0	0	1050	680	260	0	930	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	305	0	0	0	0	0	0
Lane Group Flow (vph)	550	1900	0	0	1050	375	260	0	930	0	0	0
Turn Type	Prot					Perm	Prot		Free			
Protected Phases	7	4			8		5					
Permitted Phases						8			Free			
Actuated Green, G (s)	29.0	89.8			56.8	56.8	22.2		120.0			
Effective Green, g (s)	29.0	89.8			56.8	56.8	22.2		120.0			
Actuated g/C Ratio	0.24	0.75			0.47	0.47	0.18		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)	830	2648			1675	749	327		1583			
v/s Ratio Prot	0.16	c0.54			0.30		c0.15					
v/s Ratio Perm						0.24			0.59			
v/c Ratio	0.66	0.72			0.63	0.50	0.80		0.59			
Uniform Delay, d1	41.1	8.2			23.7	21.8	46.7		0.0			
Progression Factor	0.68	0.82			1.00	1.00	1.00		1.00			
Incremental Delay, d2	0.8	0.7			1.8	2.4	12.5		1.6			
Delay (s)	28.7	7.4			25.5	24.2	59.3		1.6			
Level of Service	C	A			C	C	E		A			
Approach Delay (s)		12.2			25.0			14.2			0.0	
Approach LOS		B			C			B			A	

Intersection Summary			
HCM Average Control Delay	16.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Weston Ranch Towne Center EIR
Future 2035 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #20 Howard/Wolfe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.946
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 46.8
Optimal Cycle: 120 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	1 0	2	0	1	1 0	2	0	1	1 0	1	1	0	1 0	1	1	0
Volume Module:																
Base Vol:	60	200	410		220	80	120		200	410	60		790	380	340	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	60	200	410		220	80	120		200	410	60		790	380	340	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	60	200	410		220	80	120		200	410	60		790	380	340	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	60	200	410		220	80	120		200	410	60		790	380	340	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	60	200	410		220	80	120		200	410	60		790	380	340	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	60	200	410		220	80	120		200	410	60		790	380	340	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.85		0.95	0.95	0.85		0.95	0.93	0.93		0.95	0.88	0.88	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	1.74	0.26		1.00	1.06	0.94	
Final Sat.:	1805	3610	1615		1805	3610	1615		1805	3089	452		1805	1770	1584	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.06	0.25		0.12	0.02	0.07		0.11	0.13	0.13		0.44	0.21	0.21	
Crit Moves:			****		****					****			****			
Green/Cycle:	0.16	0.27	0.27		0.13	0.23	0.23		0.21	0.14	0.14		0.46	0.40	0.40	
Volume/Cap:	0.20	0.21	0.95		0.95	0.09	0.32		0.54	0.95	0.95		0.95	0.54	0.54	
Delay/Veh:	36.5	28.4	65.7		87.3	30.1	32.2		37.1	69.9	69.9		45.0	23.6	23.6	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	36.5	28.4	65.7		87.3	30.1	32.2		37.1	69.9	69.9		45.0	23.6	23.6	
HCM2kAvg:	2	2	17		11	1	3		6	11	11		30	9	9	

Weston Ranch Towne Center EIR
Future 2035 With Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 French Camp Road/Secondary Driveway

Cycle (sec): 60 Critical Vol./Cap. (X): 0.633
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 17.0
Optimal Cycle: 49 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Lanes:	0 0	0	0	0	1 0	0	0	1	1 0	3	0	0	0 0	2	1	0
Volume Module:																
Base Vol:	0	0	0		323	0	95		81	942	0		0	1357	93	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		323	0	95		81	942	0		0	1357	93	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Pass-by:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		323	0	95		81	942	0		0	1357	93	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	0	0		323	0	95		81	942	0		0	1357	93	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		323	0	95		81	942	0		0	1357	93	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	0	0	0		323	0	95		81	942	0		0	1357	93	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.95	1.00	0.85		0.95	0.91	1.00		1.00	0.90	0.90	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	3.00	0.00		0.00	2.81	0.19	
Final Sat.:	0	0	0		1805	0	1615		1805	5187	0		0	4806	329	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.18	0.00	0.06		0.04	0.18	0.00		0.00	0.28	0.28	
Crit Moves:					****				****					****		
Green/Cycle:	0.00	0.00	0.00		0.27	0.00	0.27		0.12	0.33	0.00		0.00	0.42	0.42	
Volume/Cap:	0.00	0.00	0.00		0.68	0.00	0.22		0.38	0.56	0.00		0.00	0.68	0.68	
Delay/Veh:	0.0	0.0	0.0		23.5	0.0	17.5		25.7	17.1	0.0		0.0	15.0	15.0	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	0.0		23.5	0.0	17.5		25.7	17.1	0.0		0.0	15.0	15.0	
HCM2kAvg:	0	0	0		7	0	2		2	6	0		0	8	8	

APPENDIX C:
SIGNAL WARRANTS

EXISTING CONDITIONS

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

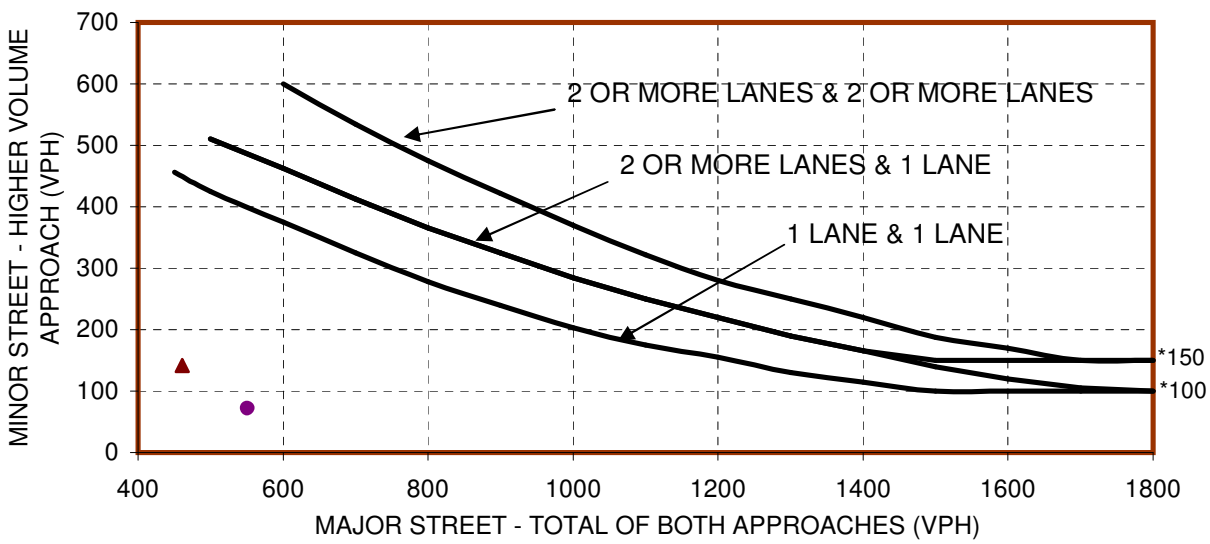
Scenario:	Existing Peak Hour

	Major Street	Minor Street
Street Name	Downing Avenue	French Camp Turnpike
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	551	72
PM	461	142

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

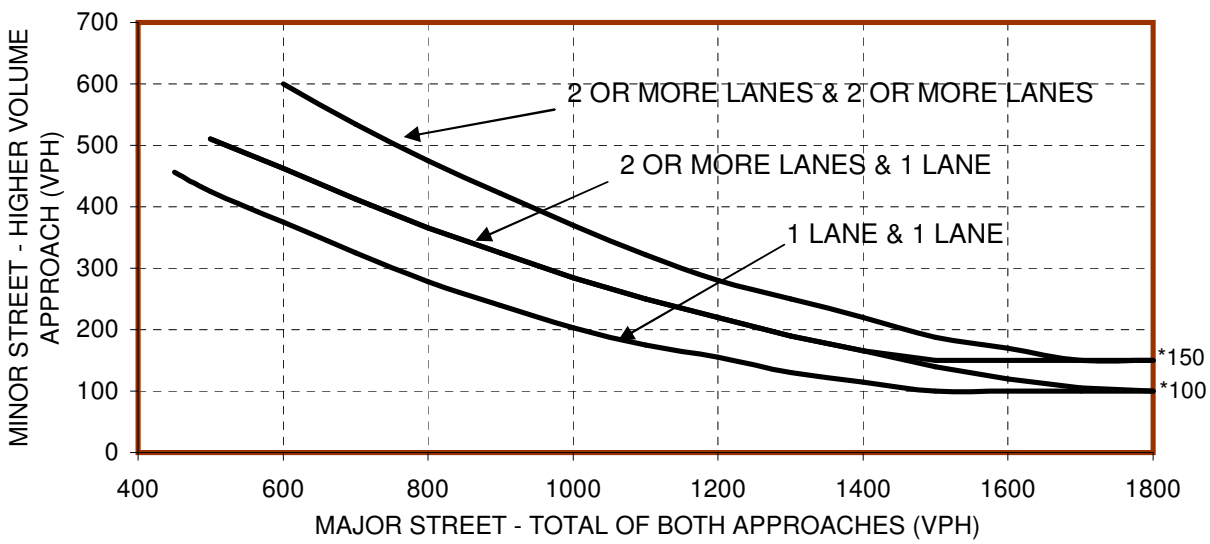
Scenario:	Existing Peak Hour

	Major Street	Minor Street
Street Name	Henry Long	McDougald Boulevard
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	246	201
PM	167	135

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

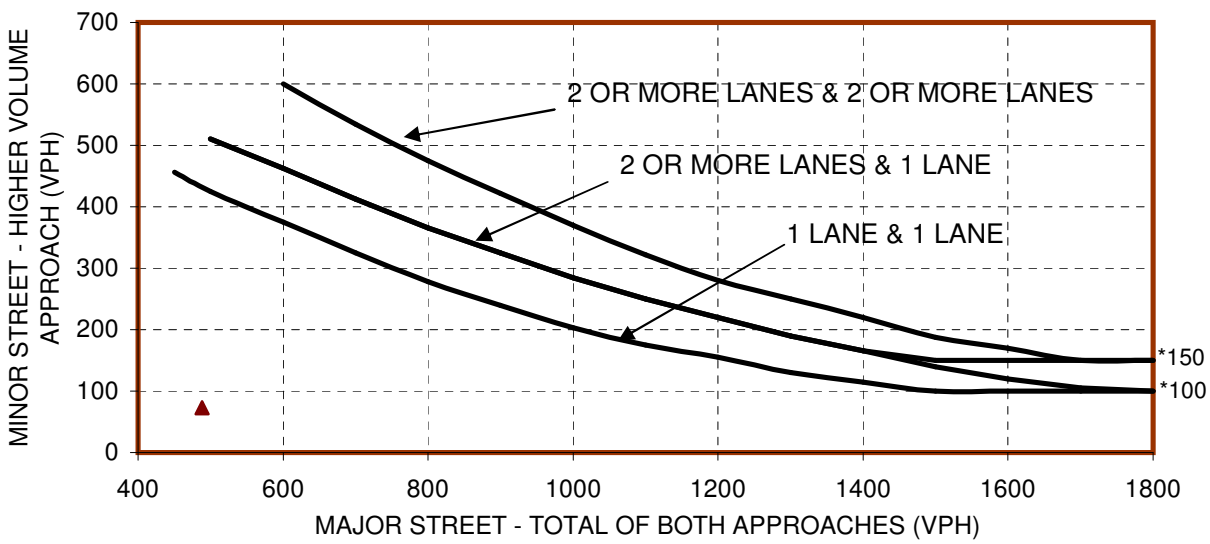
Scenario:	Existing Peak Hour

	Major Street	Minor Street
Street Name	Manthey	Henry Long
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	300	86
PM	488	73

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

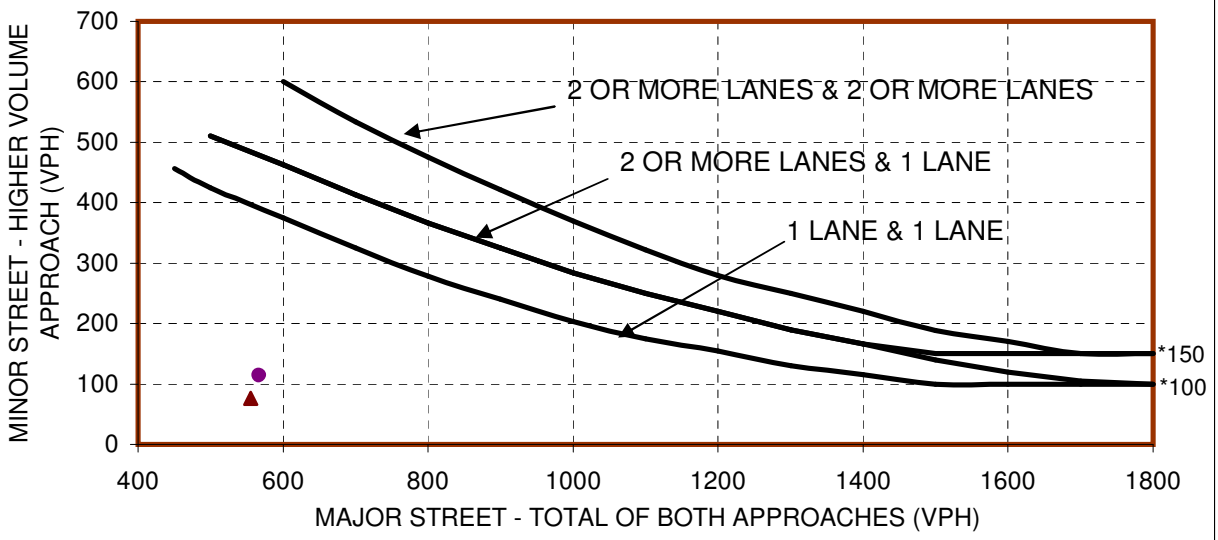
Scenario:	Existing Peak Hour

	Major Street	Minor Street
Street Name	French Camp Road	McDougald Boulevard
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	567	114
PM	555	76

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

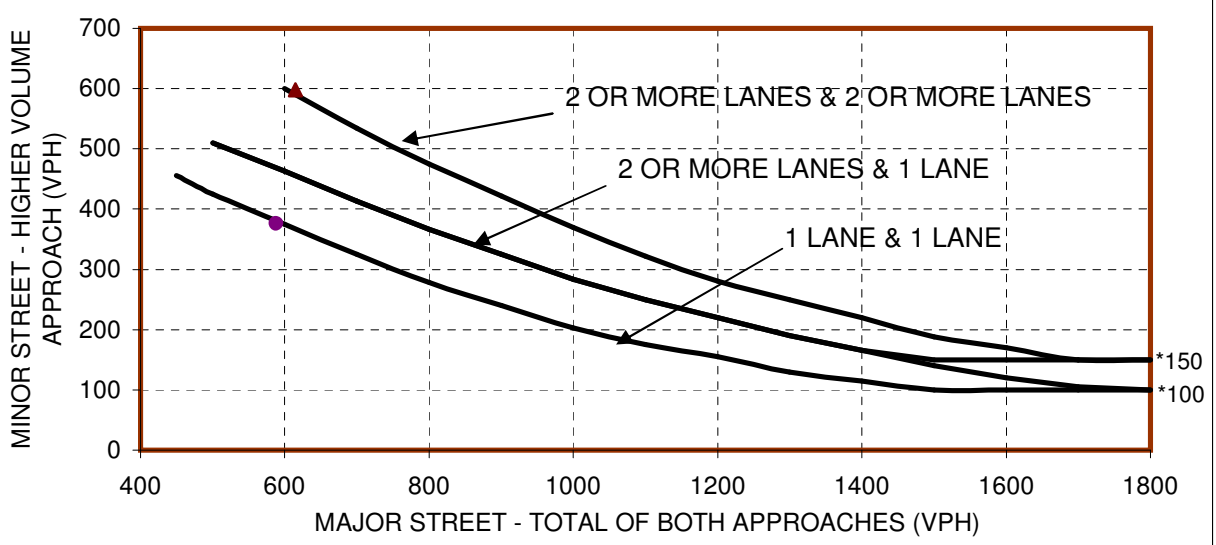
Scenario:	Existing Peak Hour

	Major Street	Minor Street
Street Name	French Camp Road	Manthey Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	588	376
PM	615	598

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

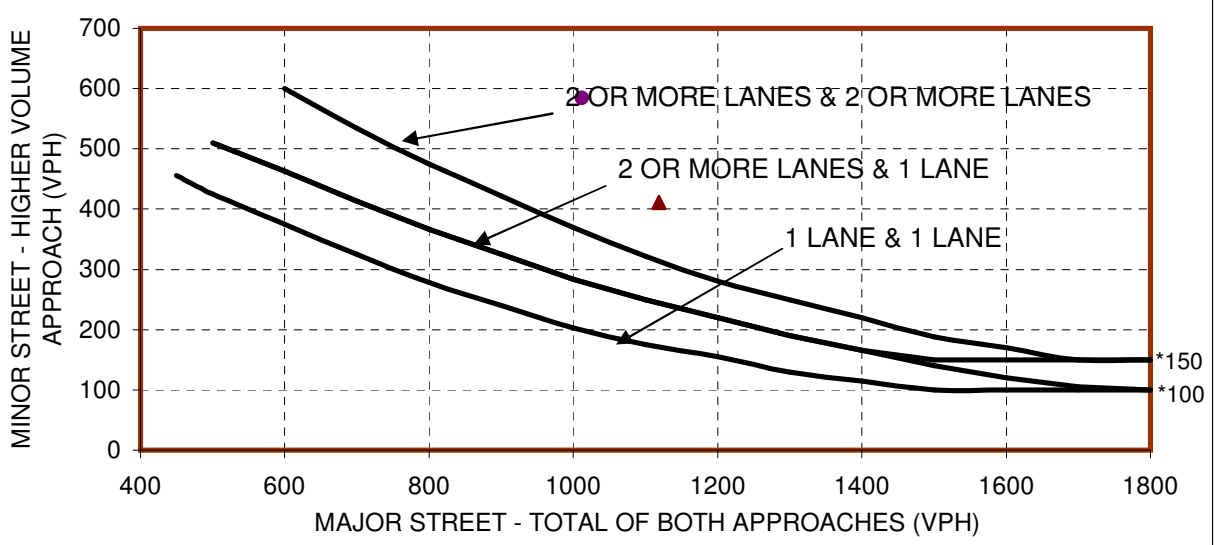
Scenario:	Existing Peak Hour

	Major Street	Minor Street
Street Name	French Camp Road	I-5 SB Ramps
No of lanes	2	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	1,012	584
PM	1,119	411

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

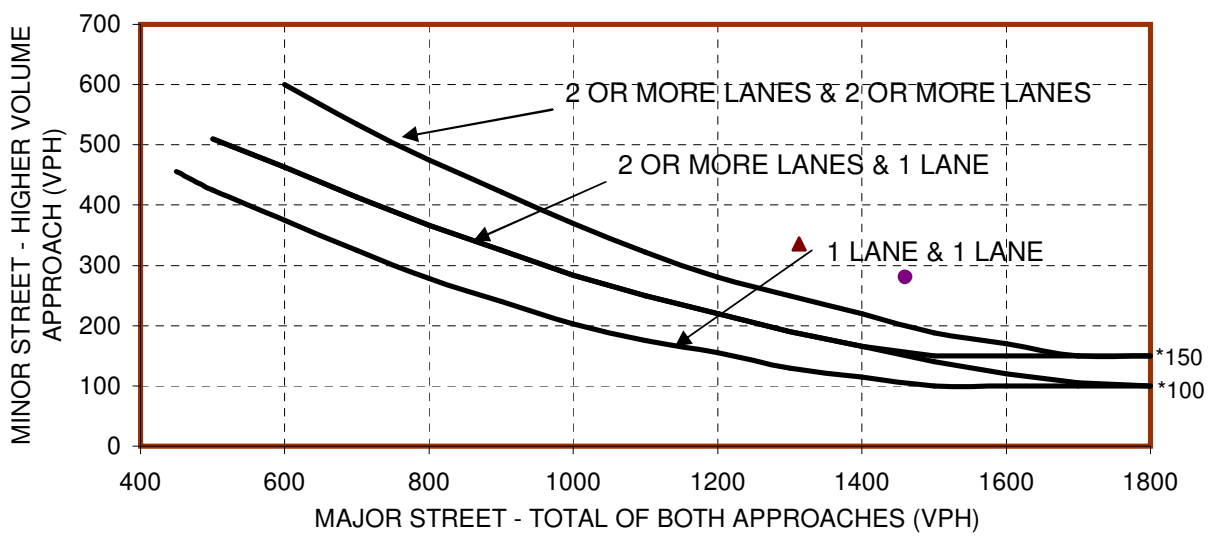
Scenario:	Existing Peak Hour

	Major Street	Minor Street
Street Name	French Camp Road	I-5 NB Ramps
No of lanes	2	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	1,460	280
PM	1,313	336

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

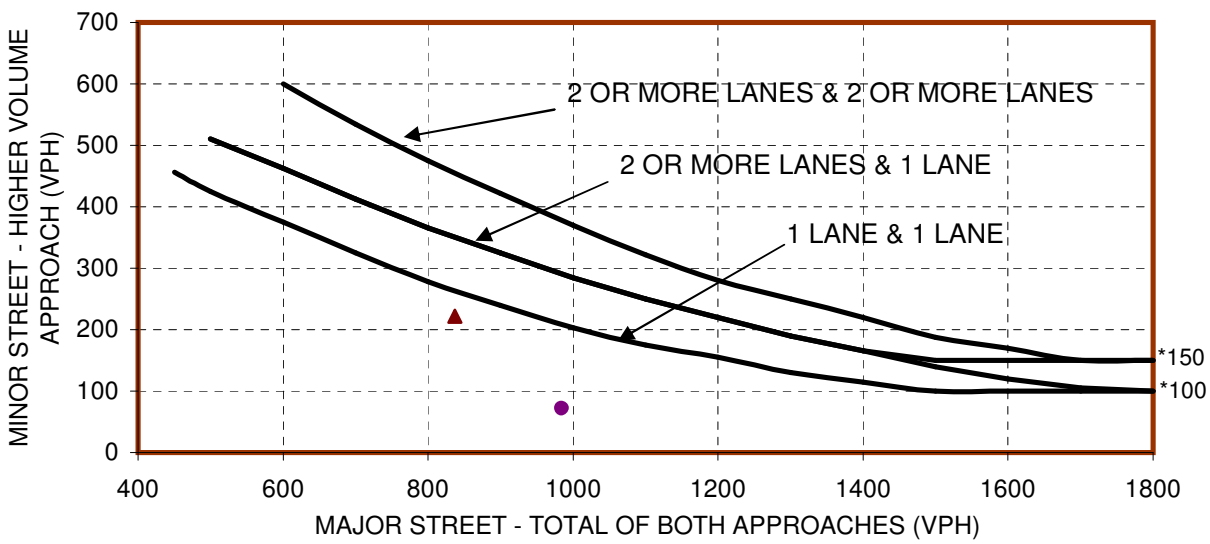
Scenario:	Existing Peak Hour

	Major Street	Minor Street
Street Name	French Camp Road	Val Dervin Parkway
No of lanes	2	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	984	72
PM	837	222

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

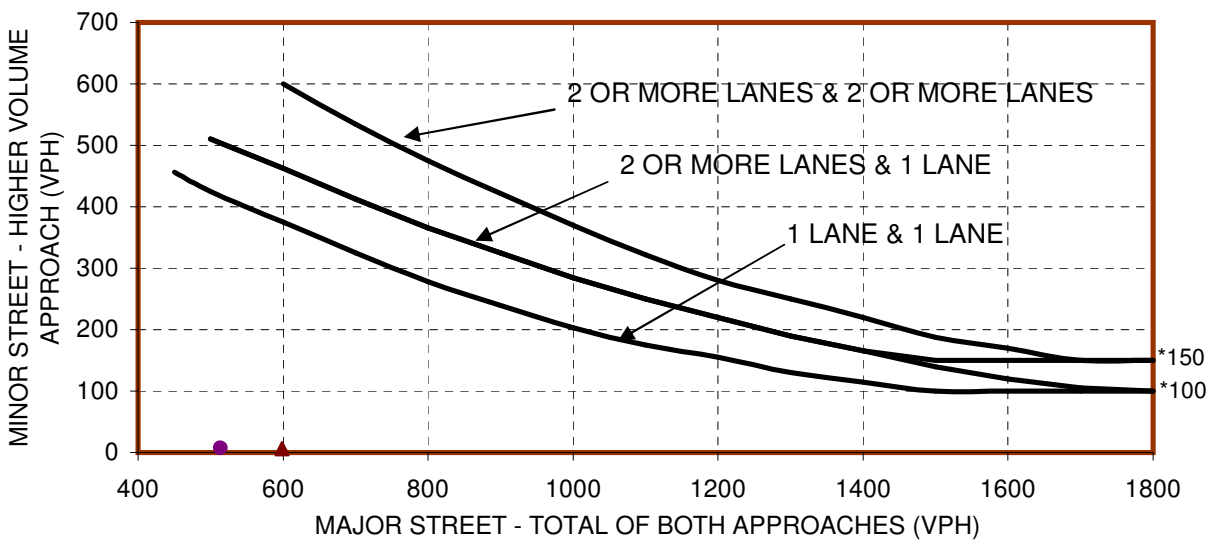
Scenario:	Existing Peak Hour

	Major Street	Minor Street
Street Name	Manthey Road	Yettner Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	514	7
PM	599	6

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

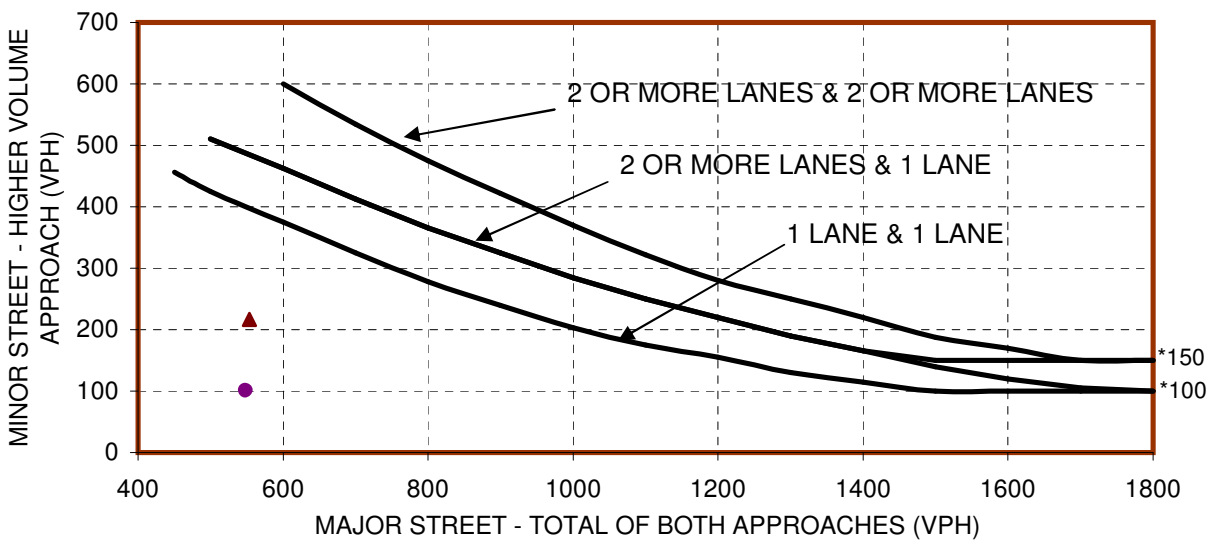
Scenario:	Existing Peak Hour

	Major Street	Minor Street
Street Name	Mathews Road	Manthey Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	548	101
PM	554	217

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

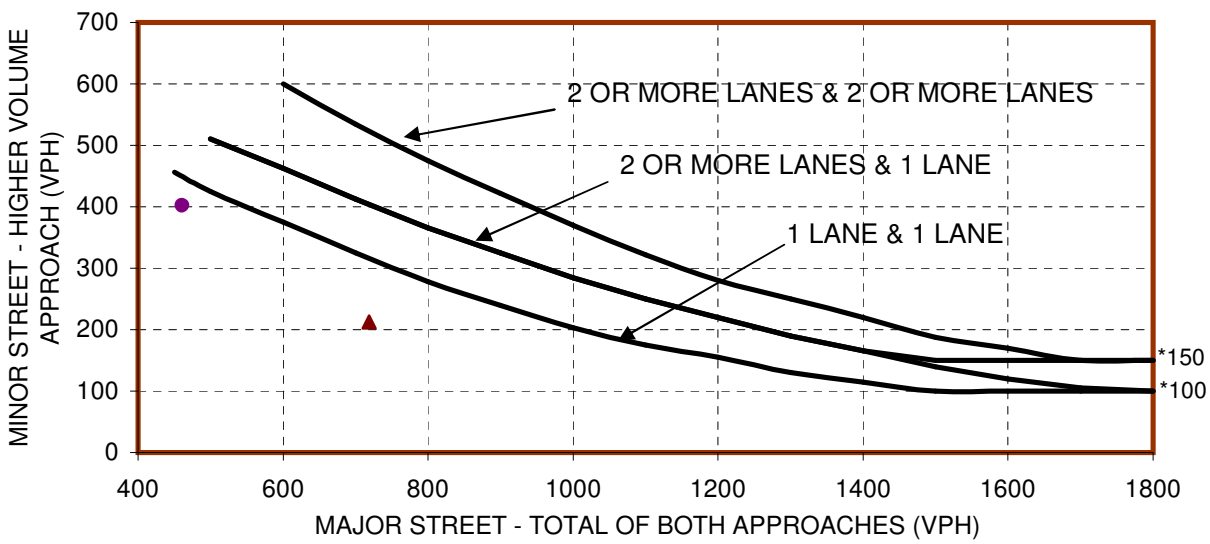
Scenario:	Existing Peak Hour

	Major Street	Minor Street
Street Name	Mathews Road	I-5 SB Ramps
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	461	402
PM	719	212

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

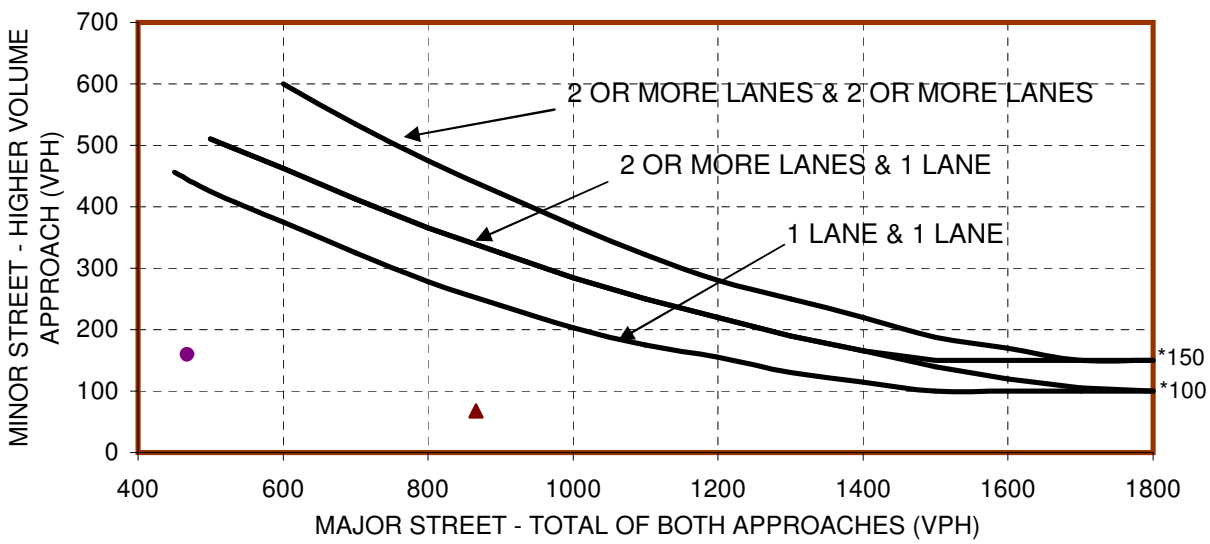
Scenario:	Existing Peak Hour

	Major Street	Minor Street
Street Name	Mathews Road	I-5 NB Ramps
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	468	159
PM	866	68

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

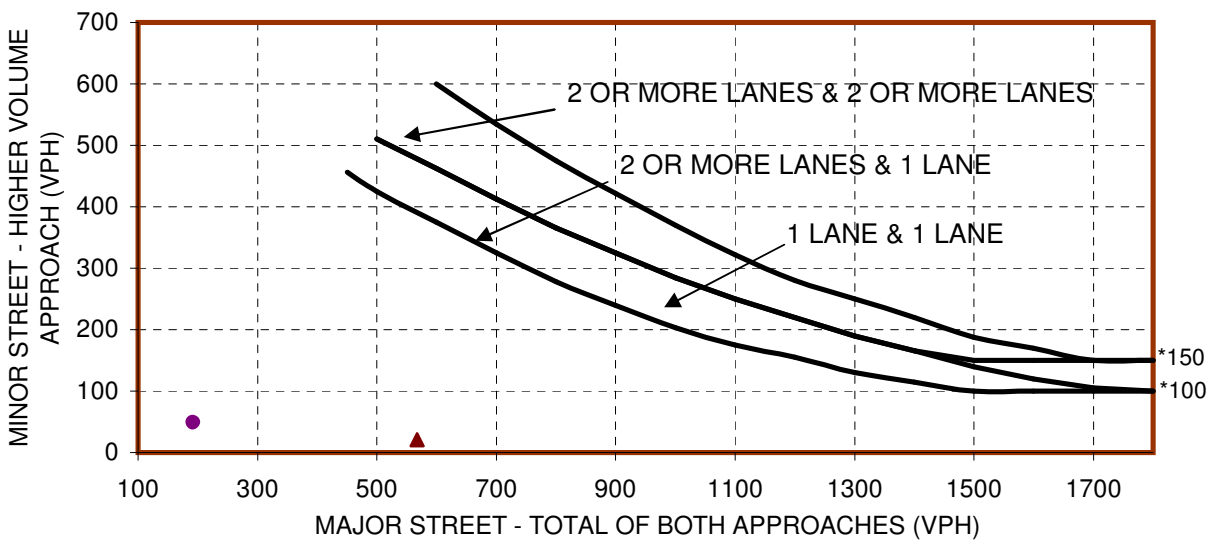
Scenario:	Existing Peak Hour

	Major Street	Minor Street
Street Name	Howard Road	Wolfe Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	192	49
PM	567	21

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

Warrant	Not Met

NEAR-TERM

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

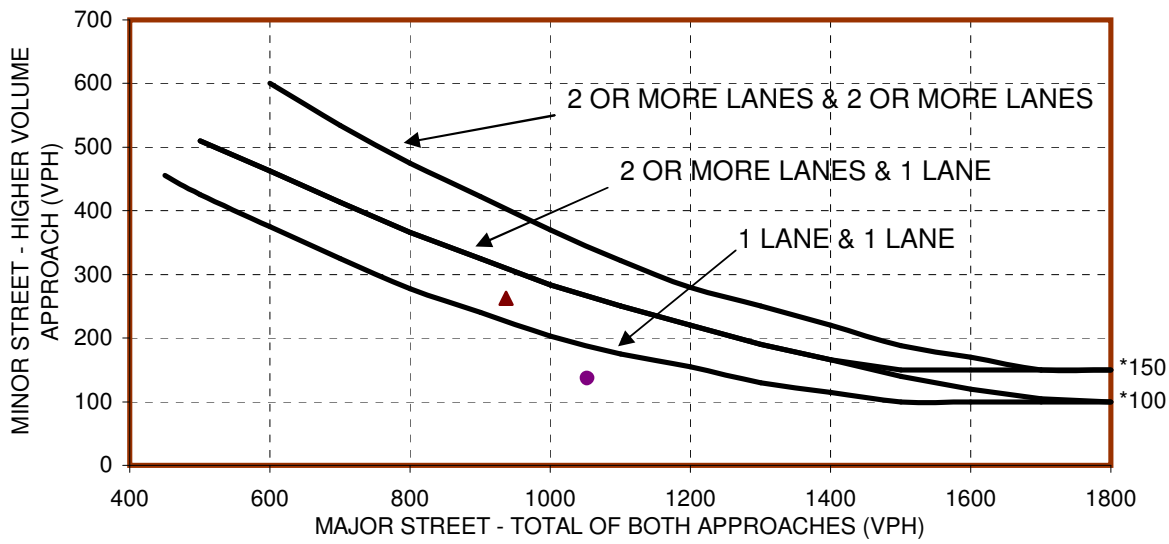
Scenario:	Near-Term Without Project

	Major Street	Minor Street
Street Name	Downing Avenue	French Camp Turnpike
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	1,053	137
PM	937	263

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

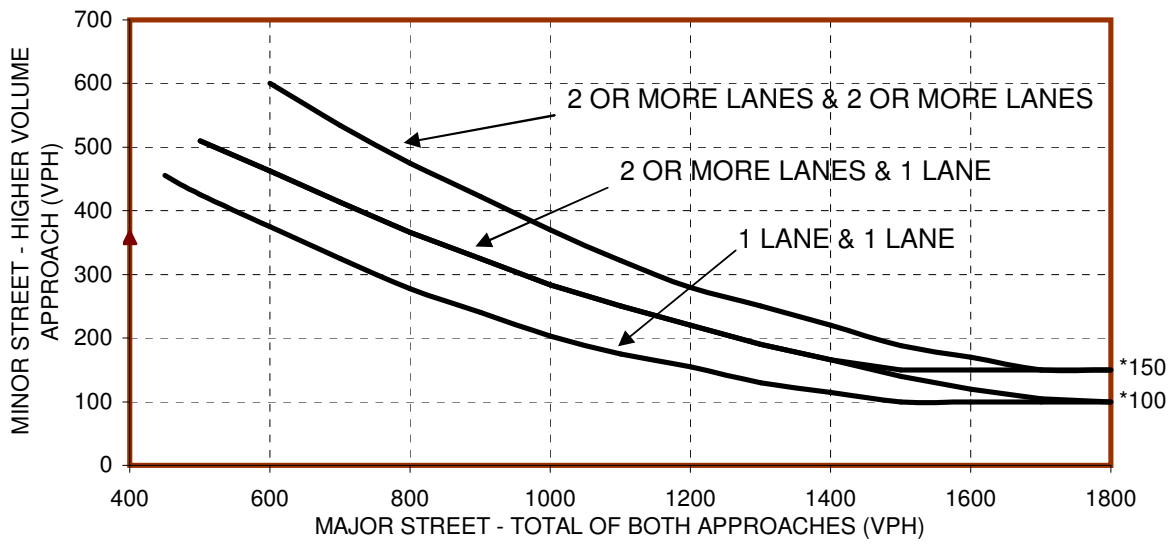
Scenario:	Near-Term Without Project

	Major Street	Minor Street
Street Name	Henry Long	McDougald Boulevard
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	295	274
PM	400	358

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor s19treet approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

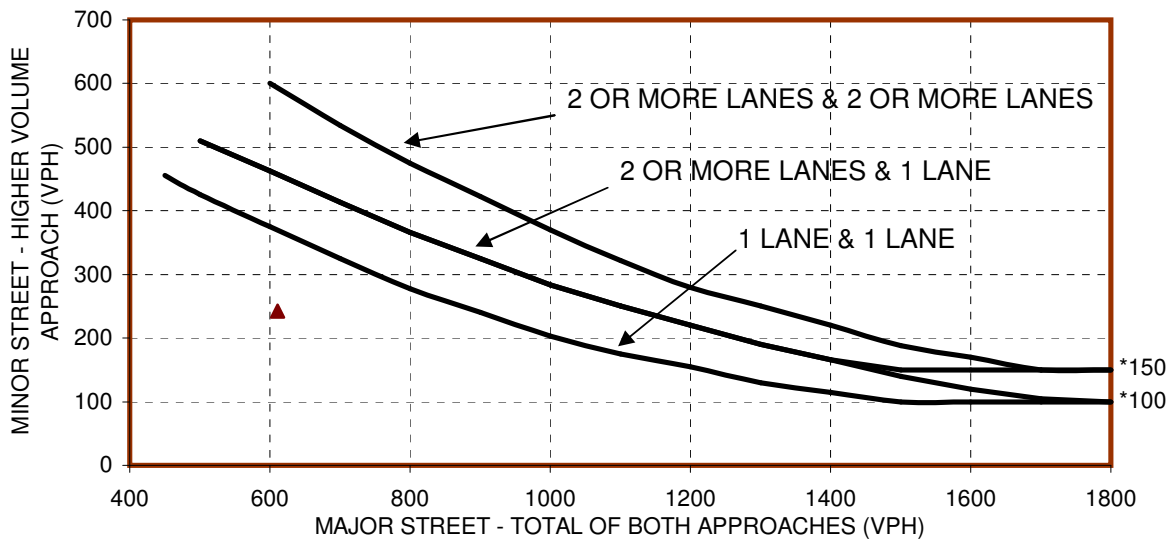
Scenario:	Near-Term Without Project

	Major Street	Minor Street
Street Name	Manthey	Henry Long
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	358	158
PM	611	242

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

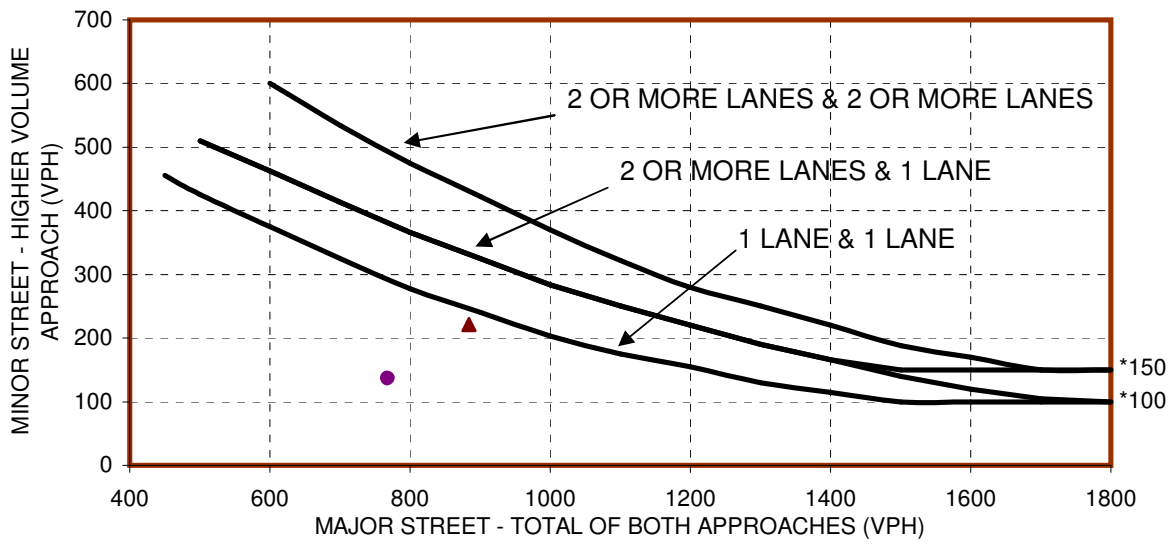
Scenario:	Near-Term Without Project

	Major Street	Minor Street
Street Name	French Camp Road	McDougald Boulevard
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	768	137
PM	884	221

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

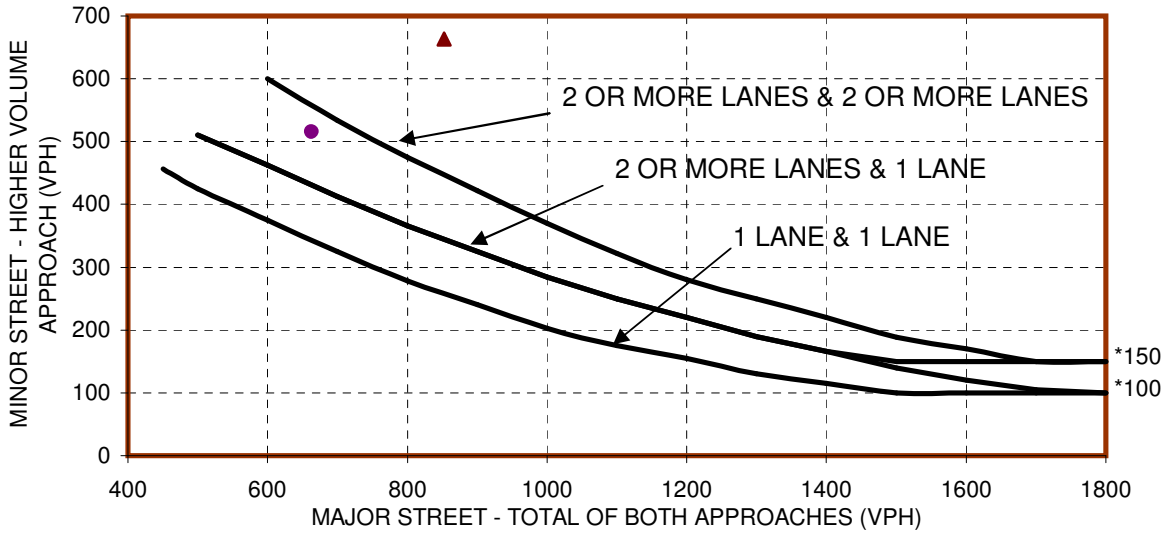
Scenario:	Near-Term Without Project

	Major Street	Minor Street
Street Name	French Camp Road	Manthey Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	663	516
PM	853	663

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

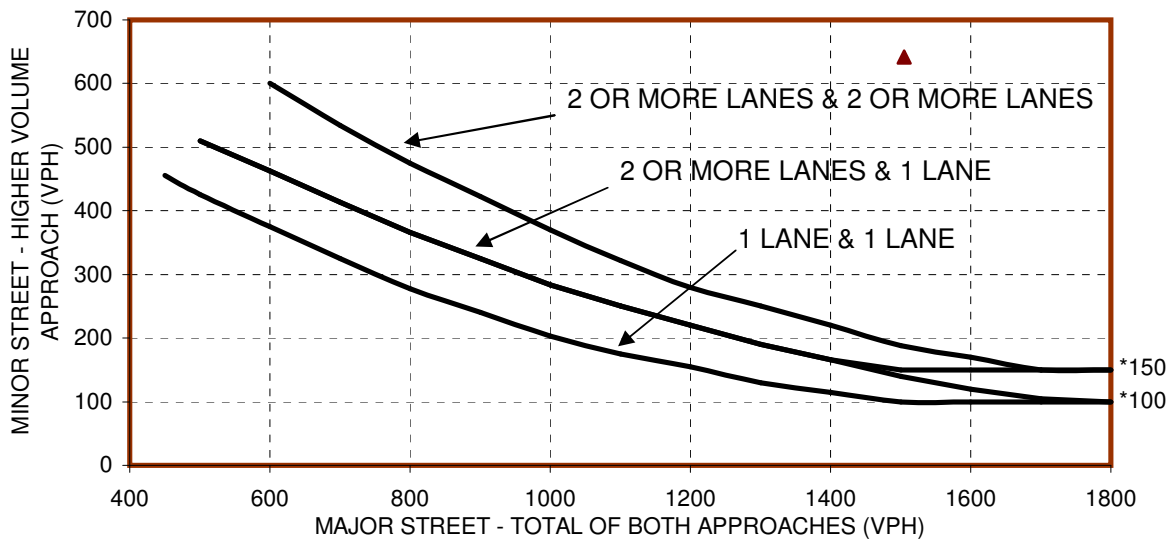
Scenario:	Near-Term Without Project

	Major Street	Minor Street
Street Name	French Camp Road	I-5 SB Ramps
No of lanes	2	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	1,379	842
PM	1,505	642

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

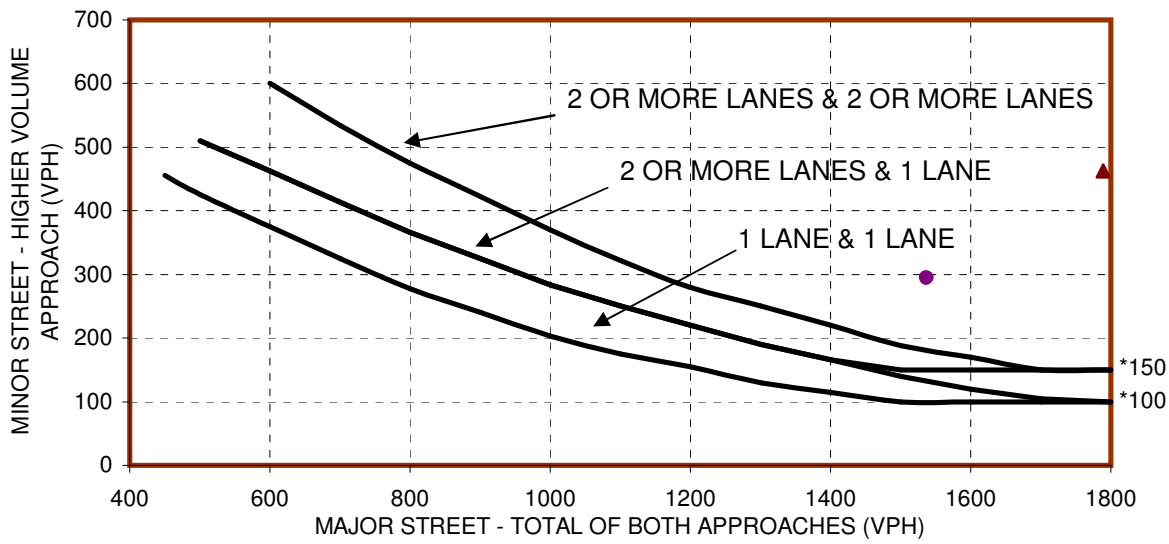
Scenario:	Near-Term Without Project

	Major Street	Minor Street
Street Name	French Camp Road	I-5 NB Ramps
No of lanes	2	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	1,537	295
PM	1,789	463

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

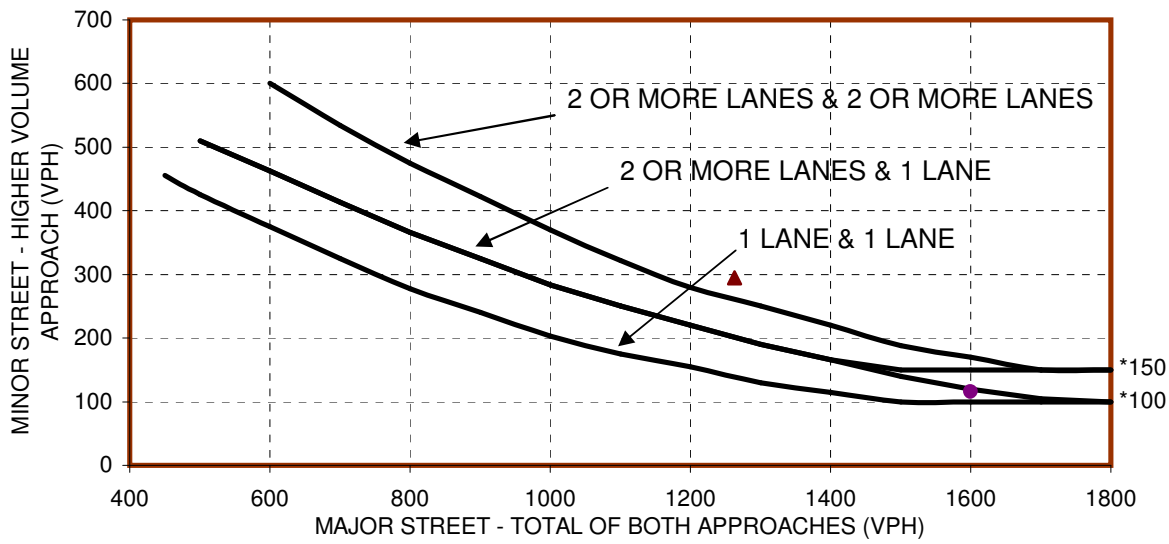
Scenario:	Near-Term Without Project

	Major Street	Minor Street
Street Name	French Camp Road	Val Dervin Parkway
No of lanes	2	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	1,600	116
PM	1,263	295

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

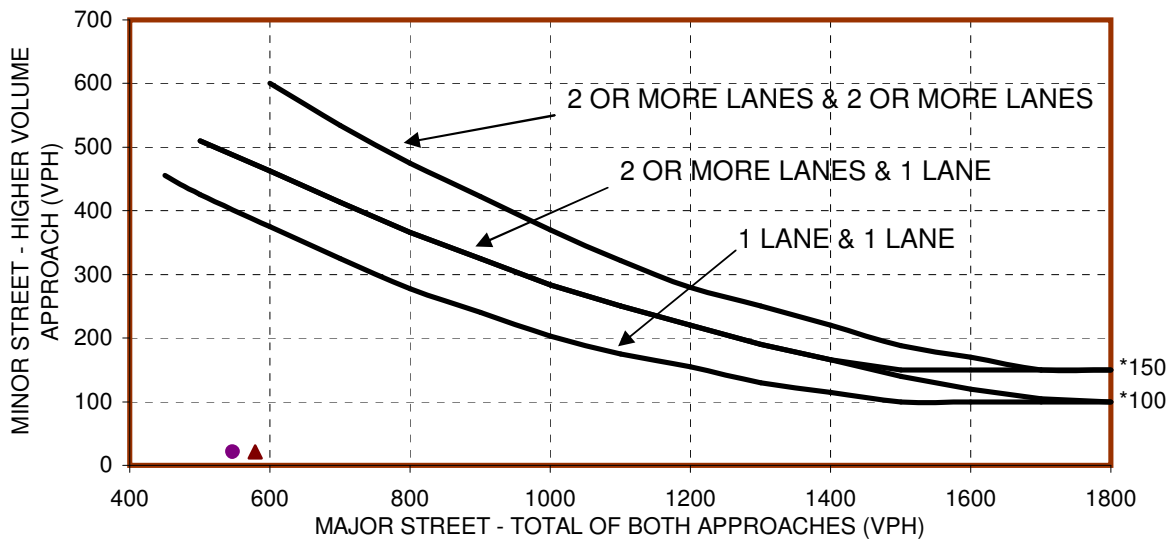
Scenario:	Near-Term Without Project

	Major Street	Minor Street
Street Name	Manthey Road	Yettner Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	547	21
PM	579	21

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

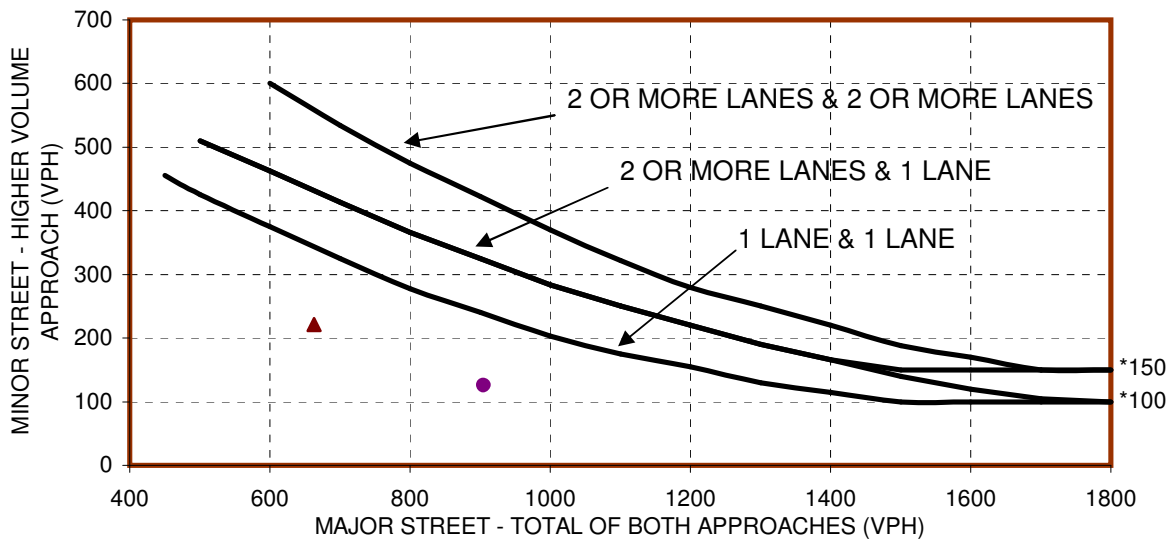
Scenario:	Near-Term Without Project

	Major Street	Minor Street
Street Name	Mathews Road	Manthey Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	905	126
PM	663	221

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

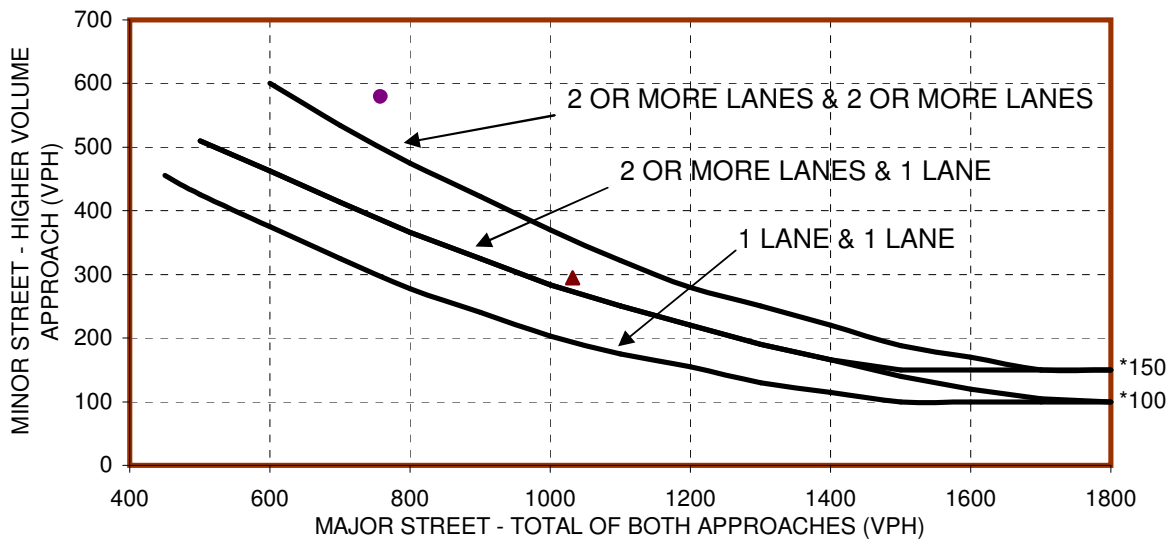
Scenario:	Near-Term Without Project

	Major Street	Minor Street
Street Name	Mathews Road	I-5 SB Ramps
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	758	579
PM	1,032	295

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

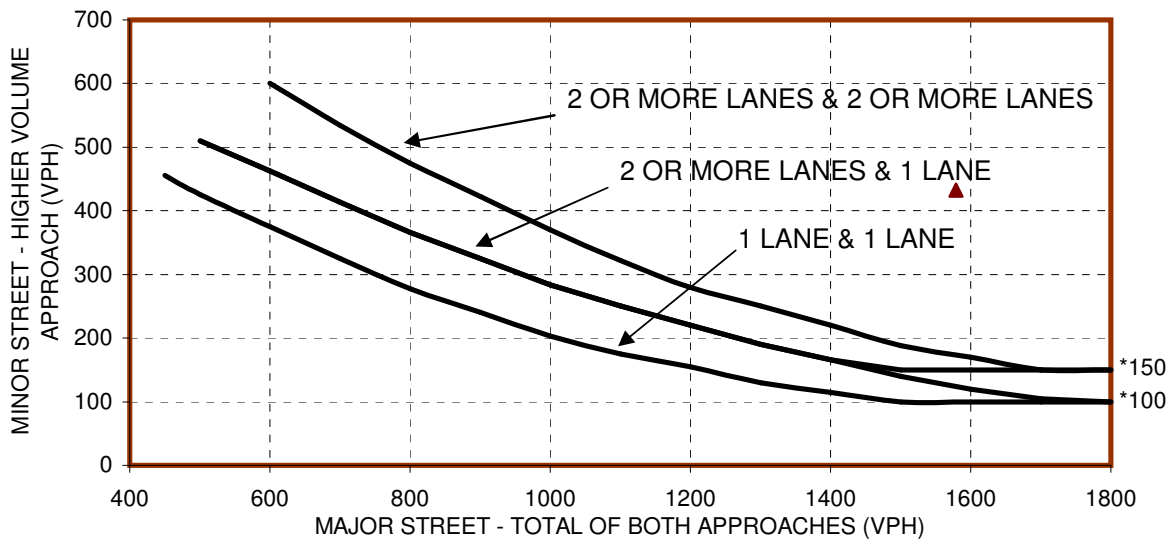
Scenario:	Near-Term Without Project

	Major Street	Minor Street
Street Name	Mathews Road	I-5 NB Ramps
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	874	1,400
PM	1,579	432

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

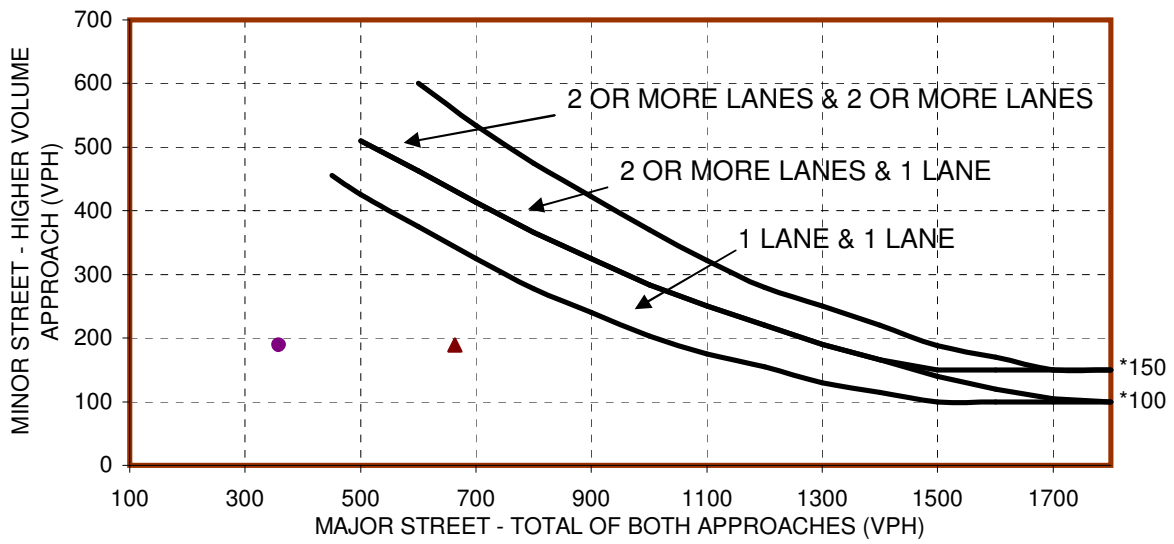
Scenario:	Near-Term Without Project

	Major Street	Minor Street
Street Name	Howard Road	Wolfe Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	358	189
PM	663	189

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

NEAR TERM PLUS PROJECT

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

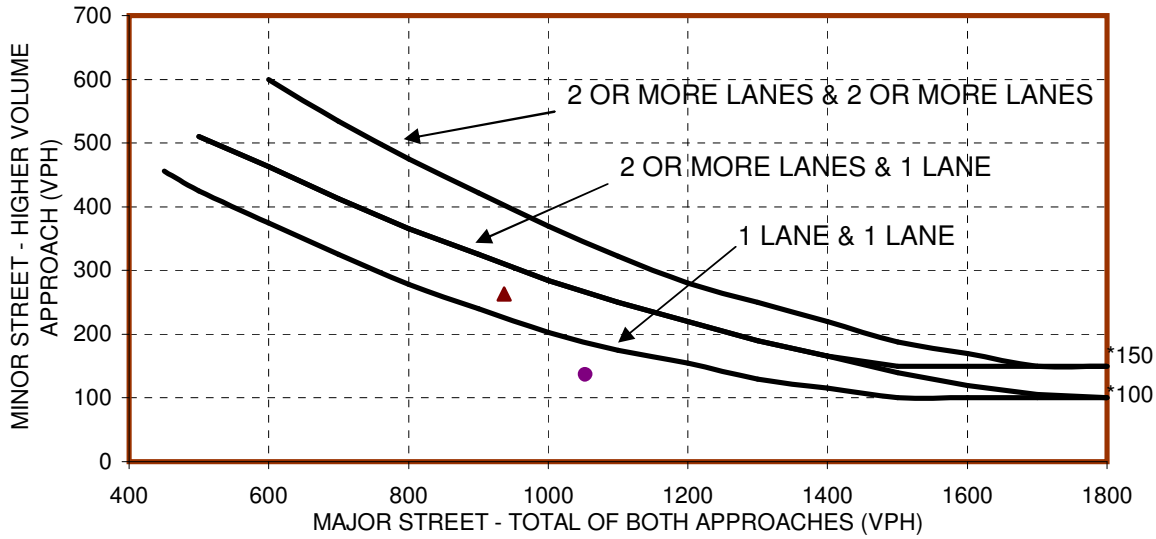
Scenario:	Near-Term With Project	

	Major Street	Minor Street
Street Name	Downing Avenue	French Camp Turnpike
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	1,053	137
PM	937	263

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

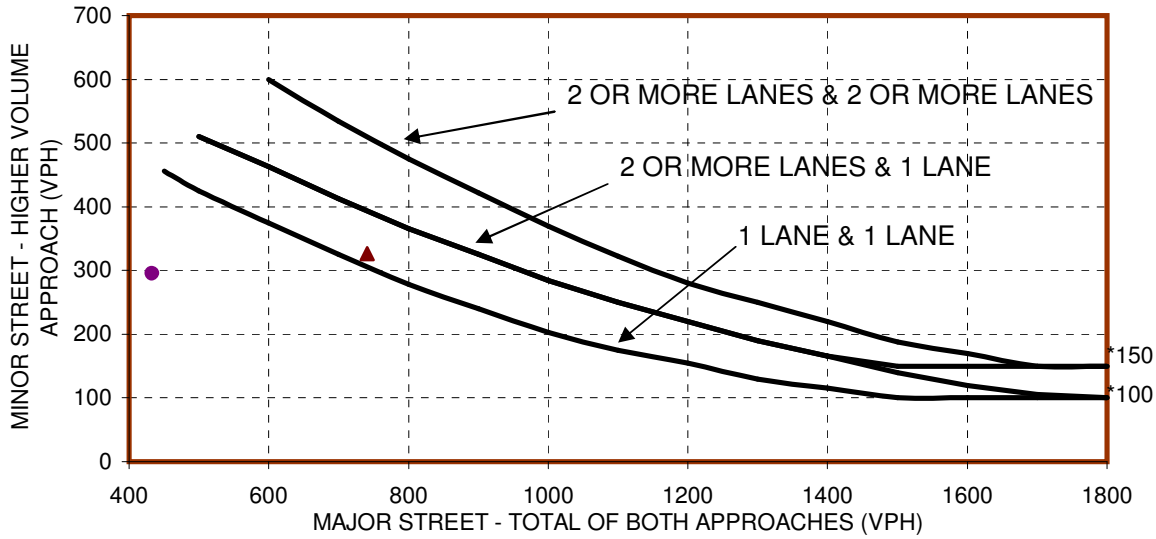
Scenario:	Near-Term With Project	

	Major Street	Minor Street
Street Name	Henry Long	McDougald Boulevard
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	433	295
PM	741	326

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

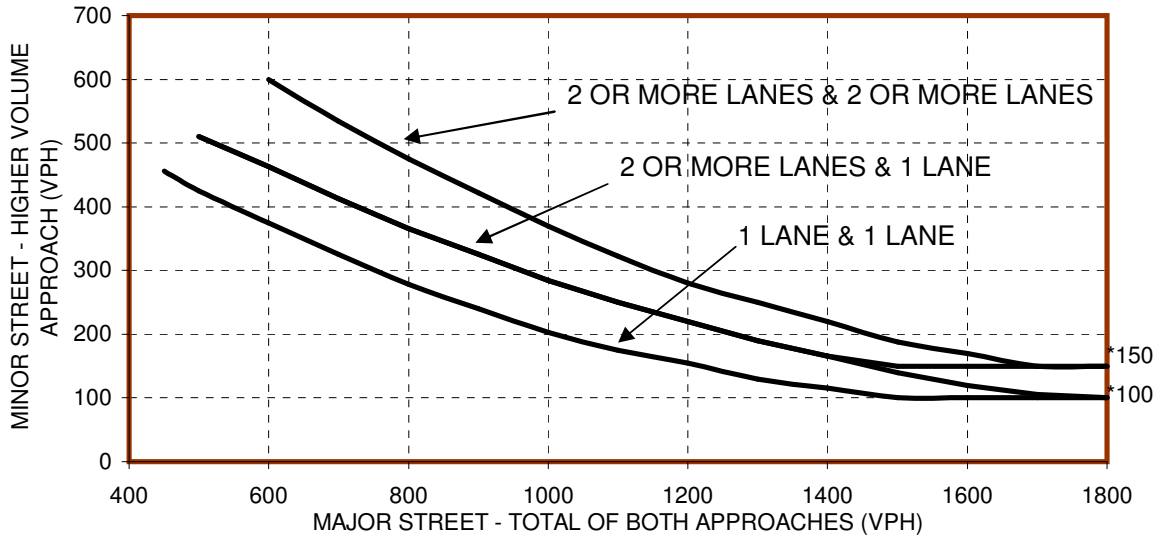
Scenario:	Near-Term With Project	

	Major Street	Minor Street
Street Name	Manthey	Henry Long
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	220	75
PM	292	187

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

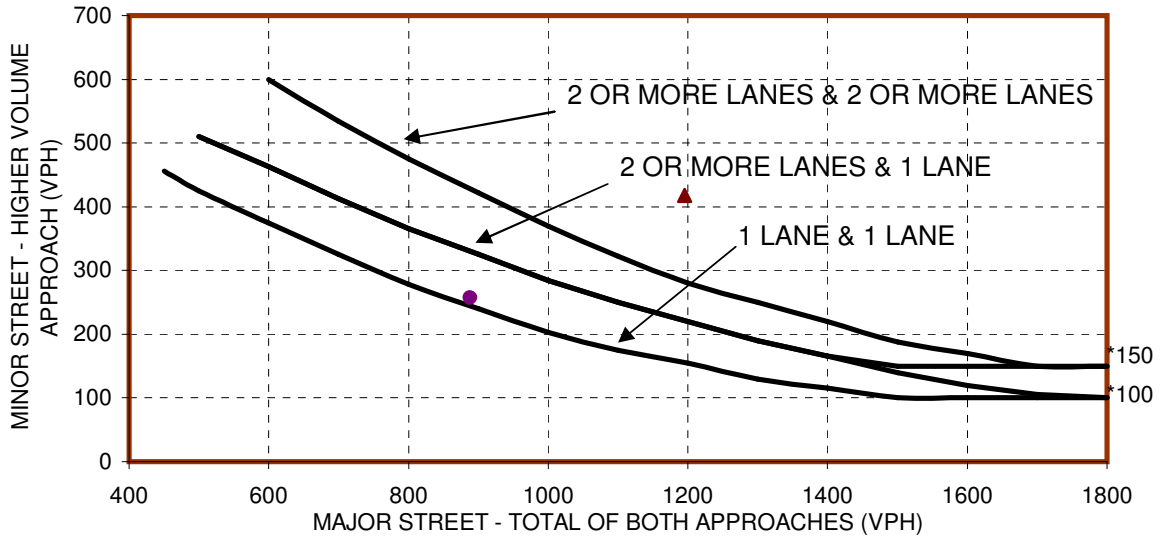
Scenario:	Near-Term With Project	

	Major Street	Minor Street
Street Name	French Camp Road	McDougald Boulevard
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	888	257
PM	1,195	418

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

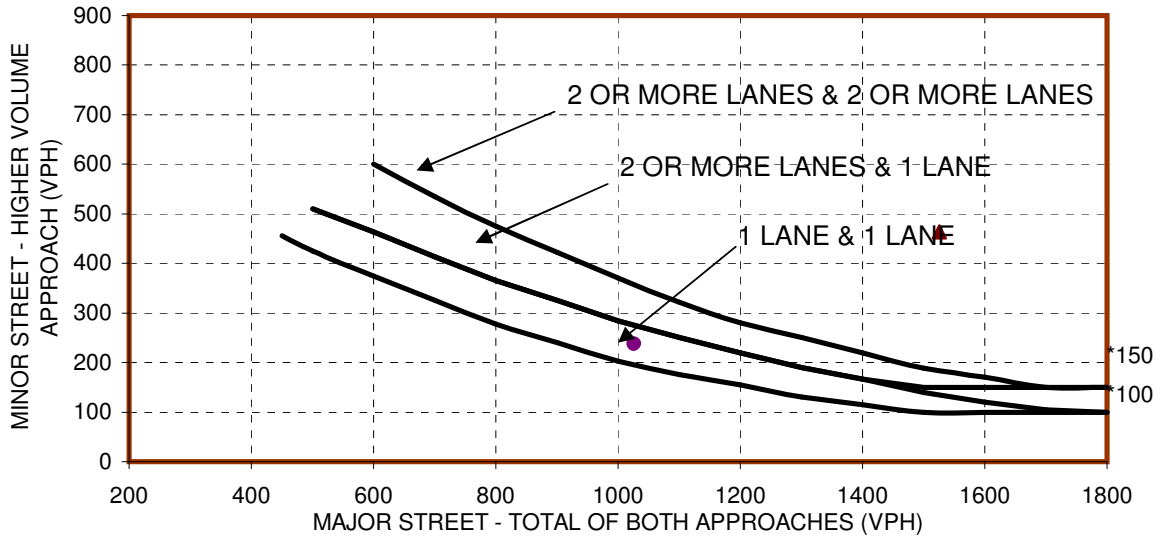
Scenario:	Near-Term With Project	

	Major Street	Minor Street
Street Name	French Camp Road	Manthey Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	1,026	237
PM	1,526	463

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

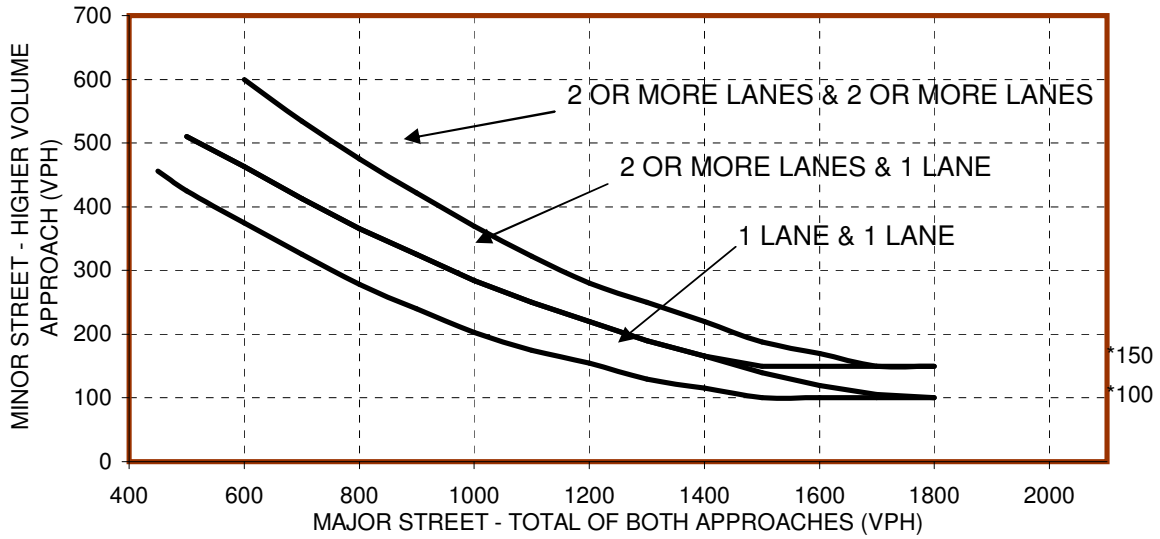
Scenario:	Near-Term With Project	

	Major Street	Minor Street
Street Name	French Camp Road	I-5 SB Ramps
No of lanes	2	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	1,715	925
PM	2,626	862

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

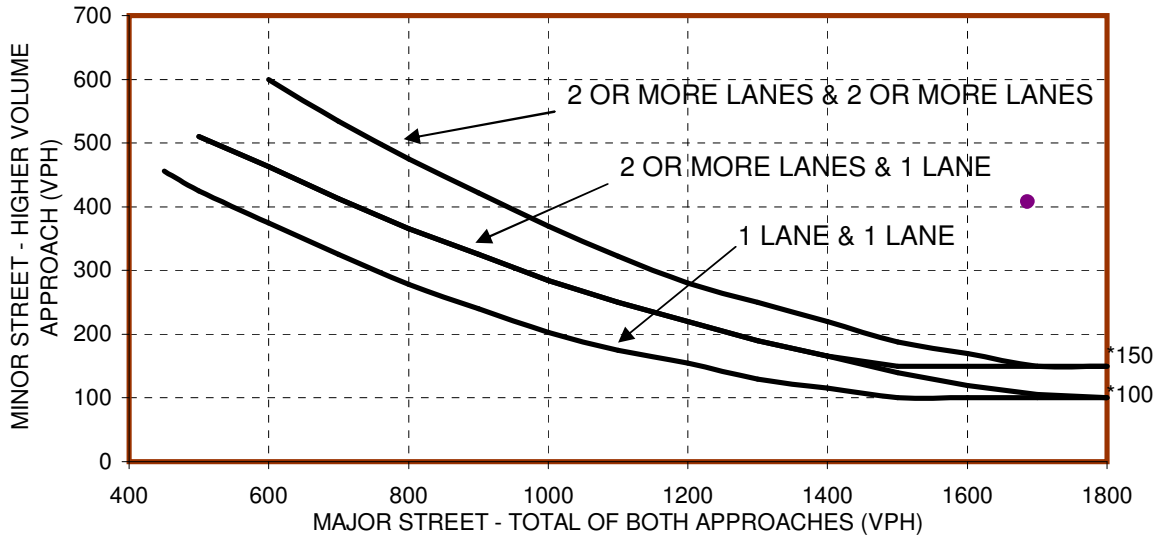
Scenario:	Near-Term With Project	

	Major Street	Minor Street
Street Name	French Camp Road	I-5 NB Ramps
No of lanes	2	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	1,686	408
PM	2,316	762

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

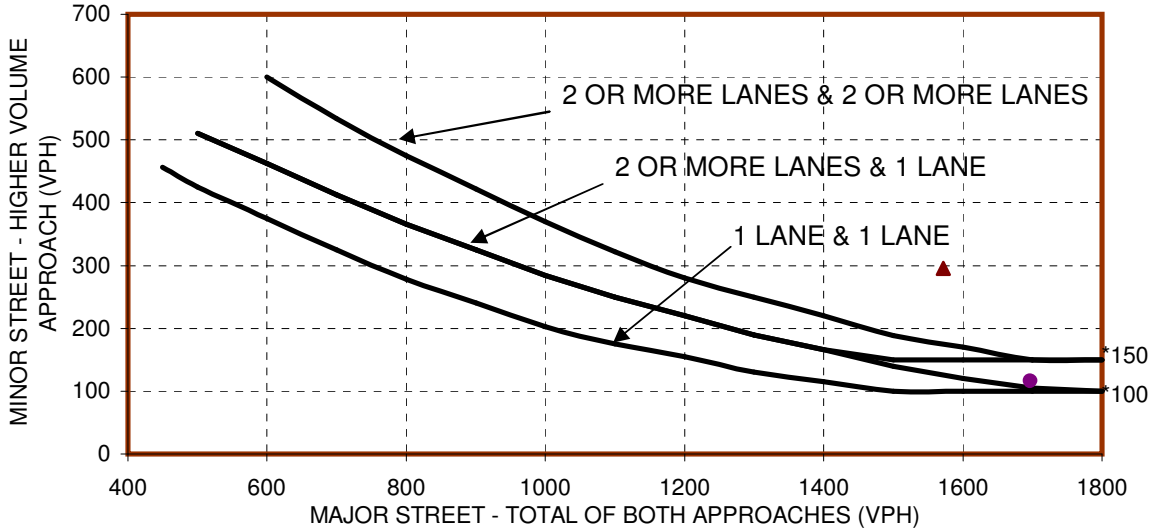
Scenario:	Near-Term With Project	

	Major Street	Minor Street
Street Name	French Camp Road	Val Dervin Parkway
No of lanes	2	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	1,697	116
PM	1,572	295

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

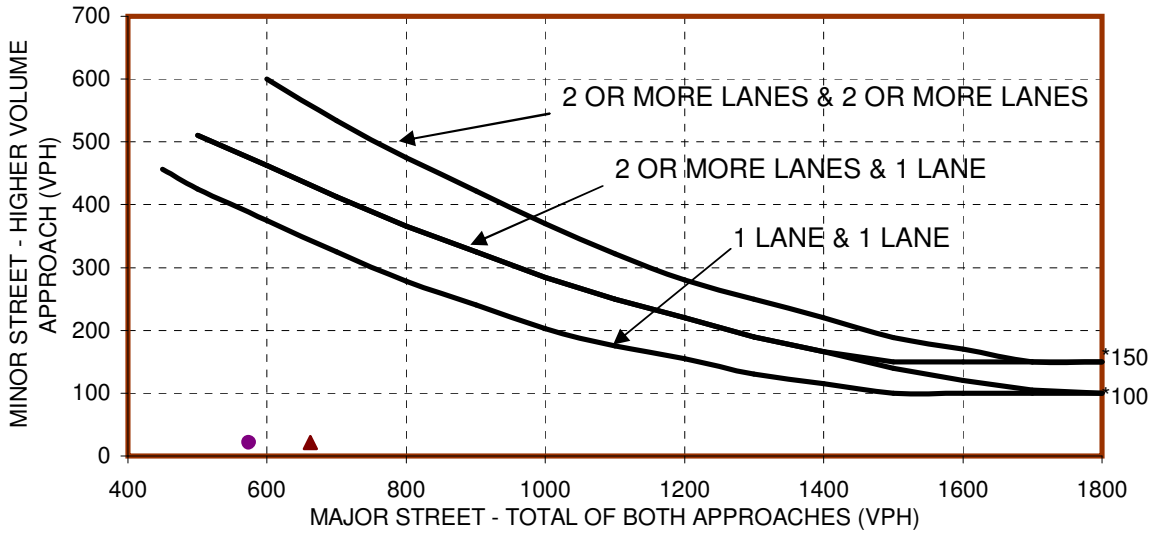
Scenario:	Near-Term With Project

	Major Street	Minor Street
Street Name	Manthey Road	Yettner Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	574	21
PM	662	21

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

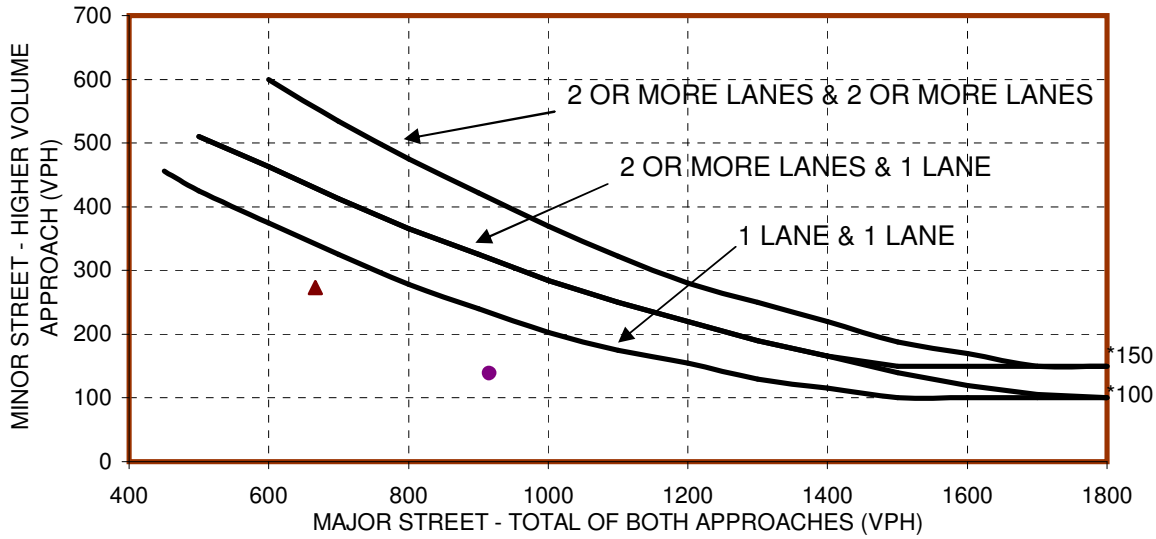
Scenario:	Near-Term With Project	

	Major Street	Minor Street
Street Name	Mathews Road	Manthey Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	916	139
PM	667	273

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

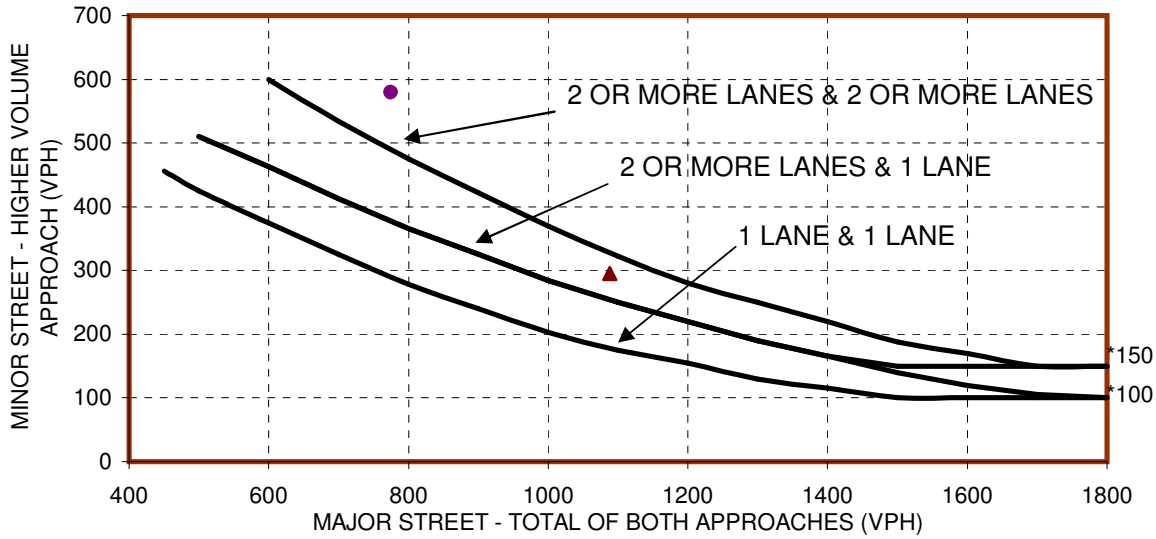
Scenario:	Near-Term With Project	

	Major Street	Minor Street
Street Name	Mathews Road	I-5 SB Ramps
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	775	579
PM	1,088	295

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

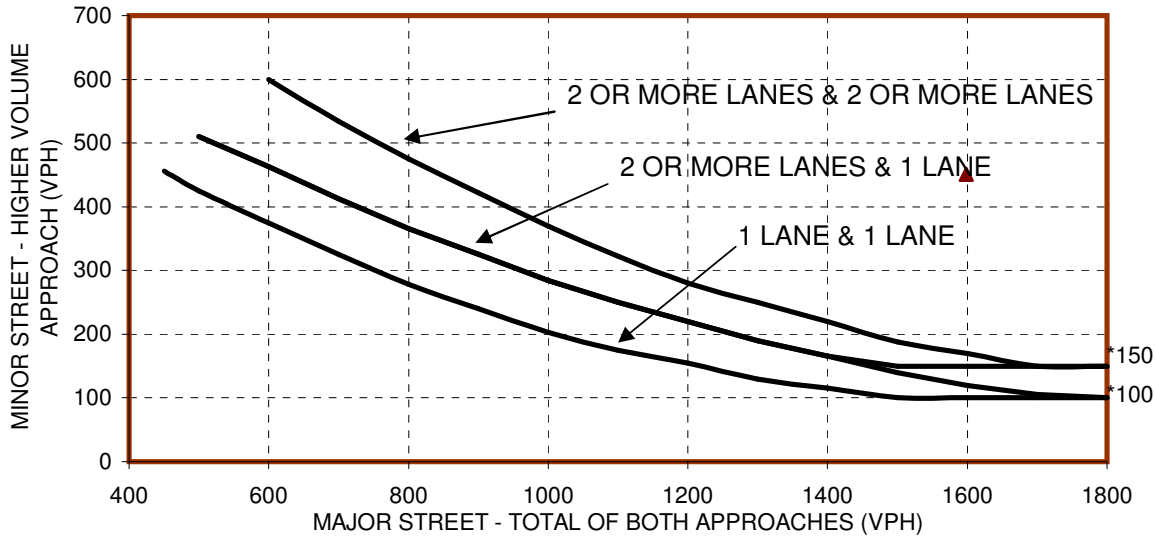
Scenario:	Near-Term With Project

	Major Street	Minor Street
Street Name	Mathews Road	I-5 NB Ramps
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	879	1,407
PM	1,598	451

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

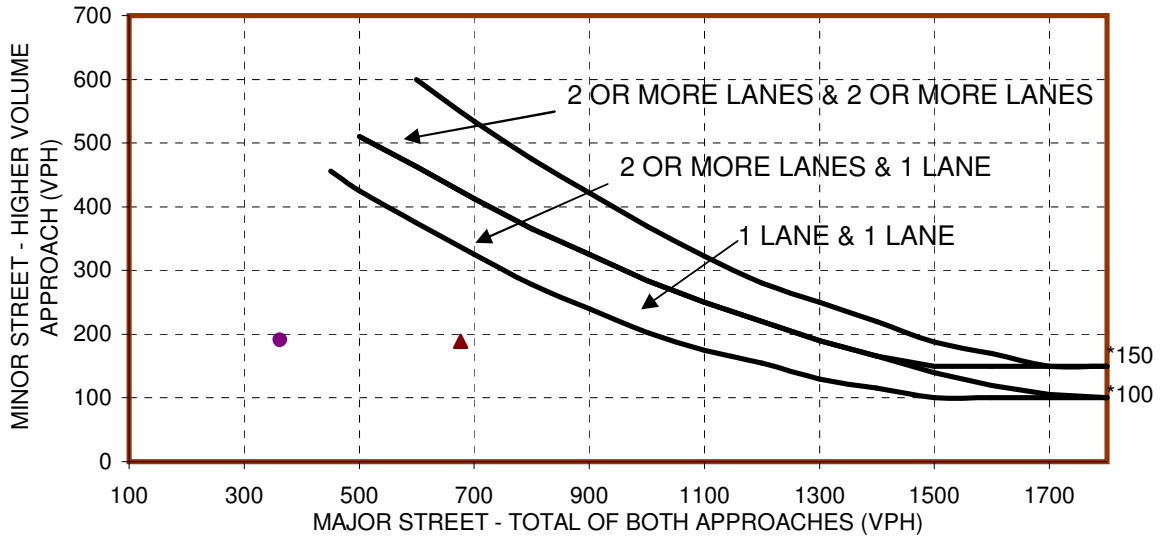
Scenario:	Near-Term With Project	

	Major Street	Minor Street
Street Name	Howard Road	Wolfe Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	363	191
PM	676	189

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

2025

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

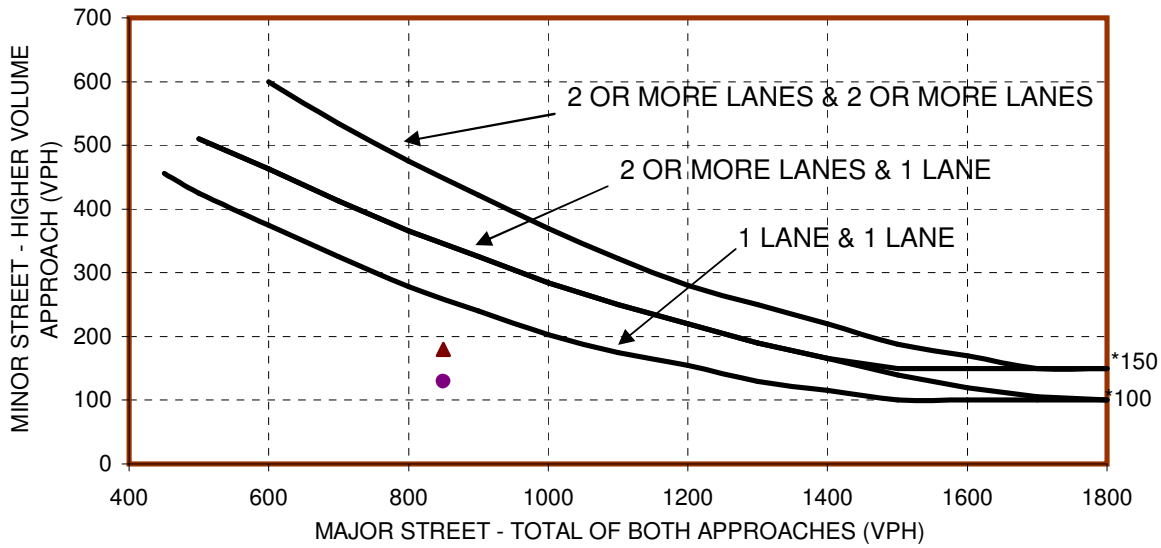
Scenario:	Cumulative Without Project

	Major Street	Minor Street
Street Name	Downing Avenue	French Camp Turnpike
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	850	130
PM	850	180

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

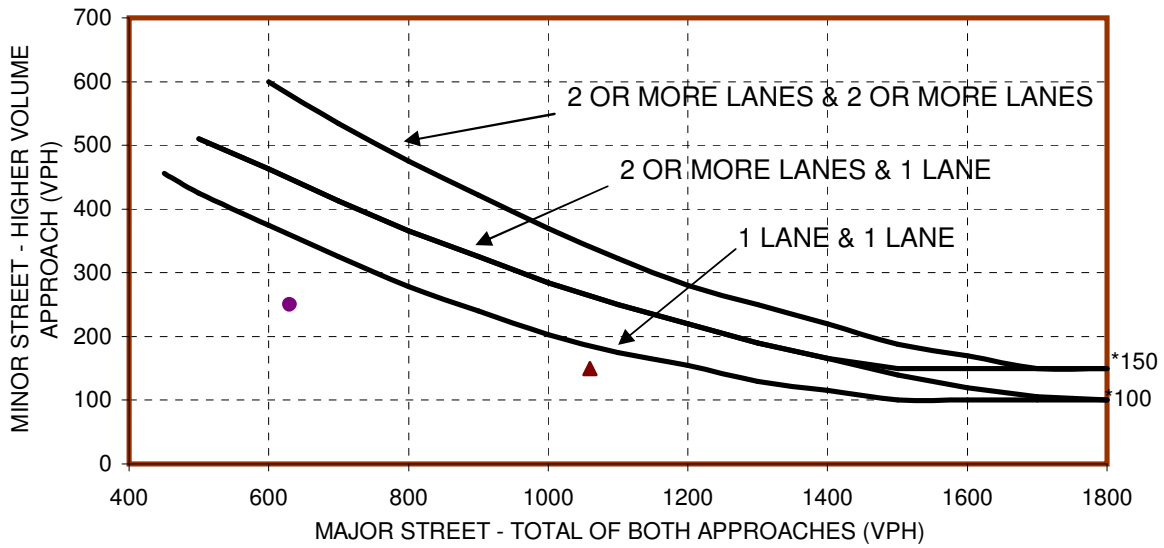
Scenario:	Cumulative Without Project

	Major Street	Minor Street
Street Name	McDougald	Henry Long
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	630	250
PM	1,060	150

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

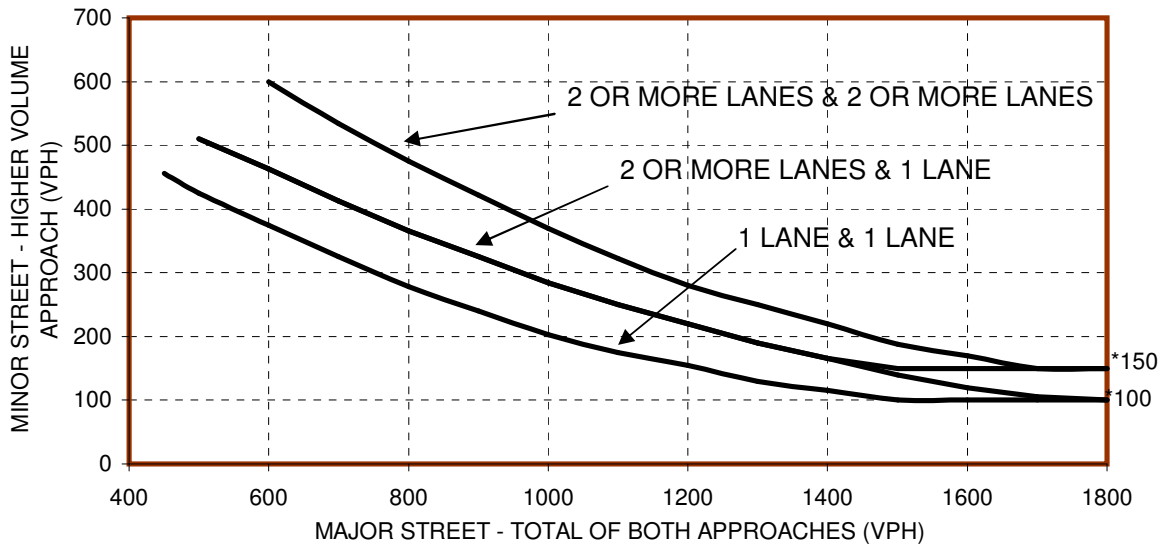
Scenario:	Cumulative Without Project

	Major Street	Minor Street
Street Name	Manthey	Henry Long
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	140	60
PM	100	400

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

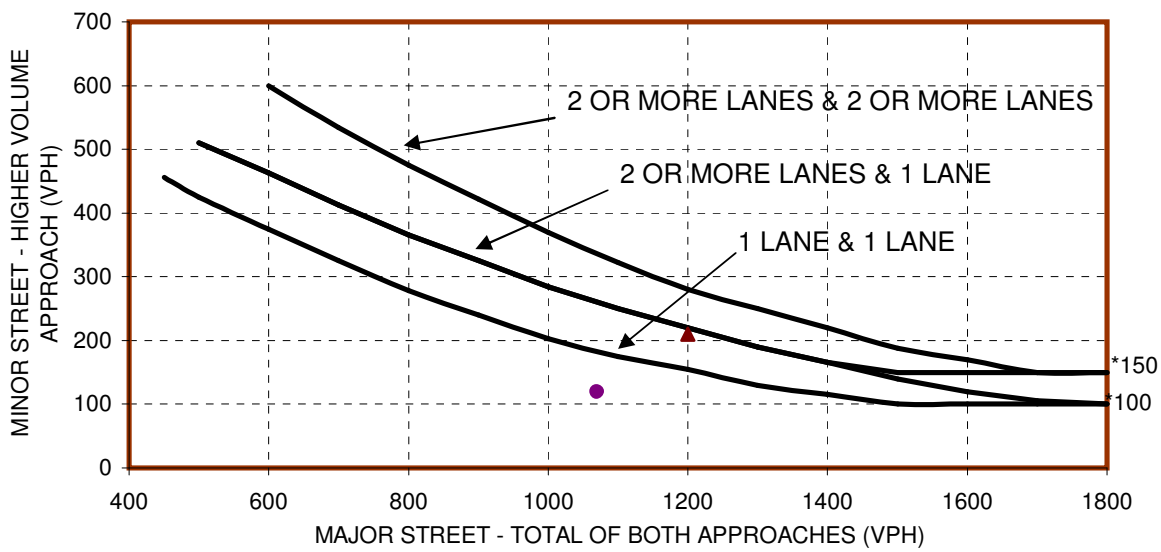
Scenario:	Cumulative Without Project

	Major Street	Minor Street
Street Name	Mathews Road	Manthey Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	1,070	120
PM	1,200	210

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

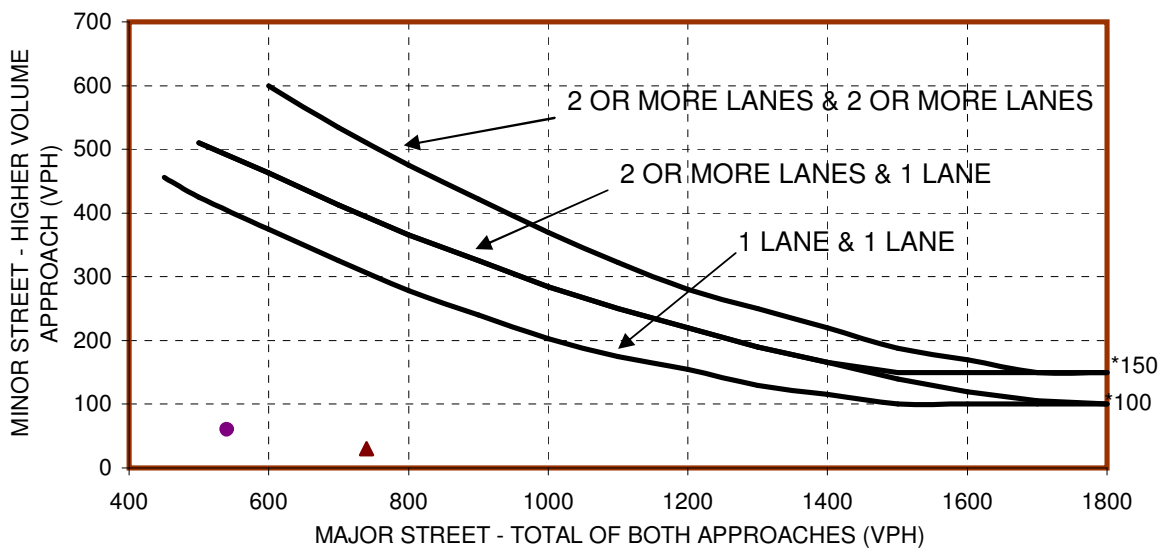
Scenario:	Cumulative Without Project

	Major Street	Minor Street
Street Name	Howard Road	Wolfe Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	540	60
PM	740	30

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

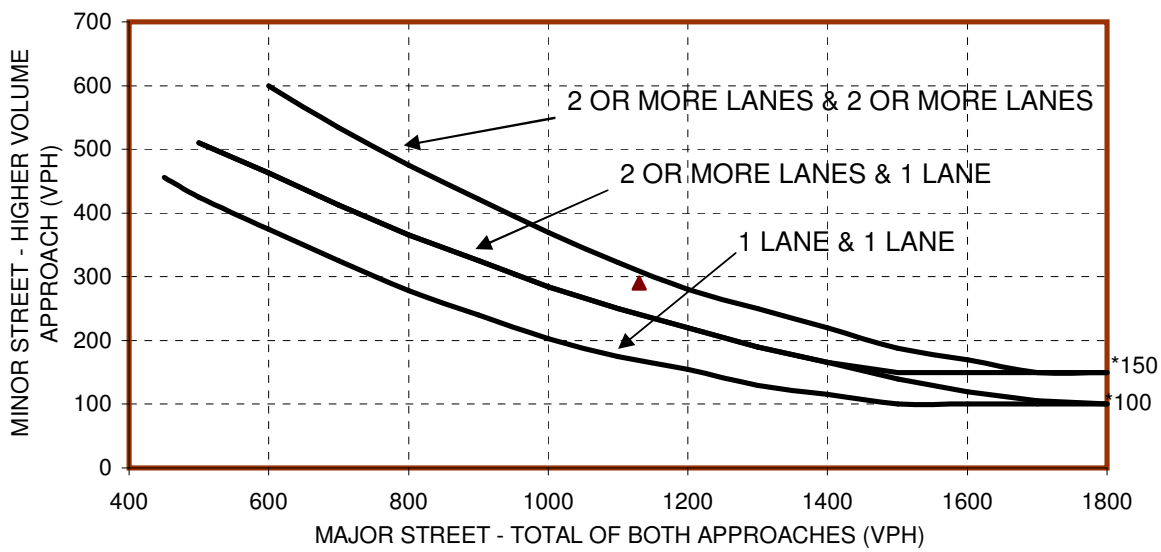
Scenario:	Cumulative Without Project

	Major Street	Minor Street
Street Name	Mathews Road	I-5 SB Ramps
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	640	880
PM	1,130	290

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

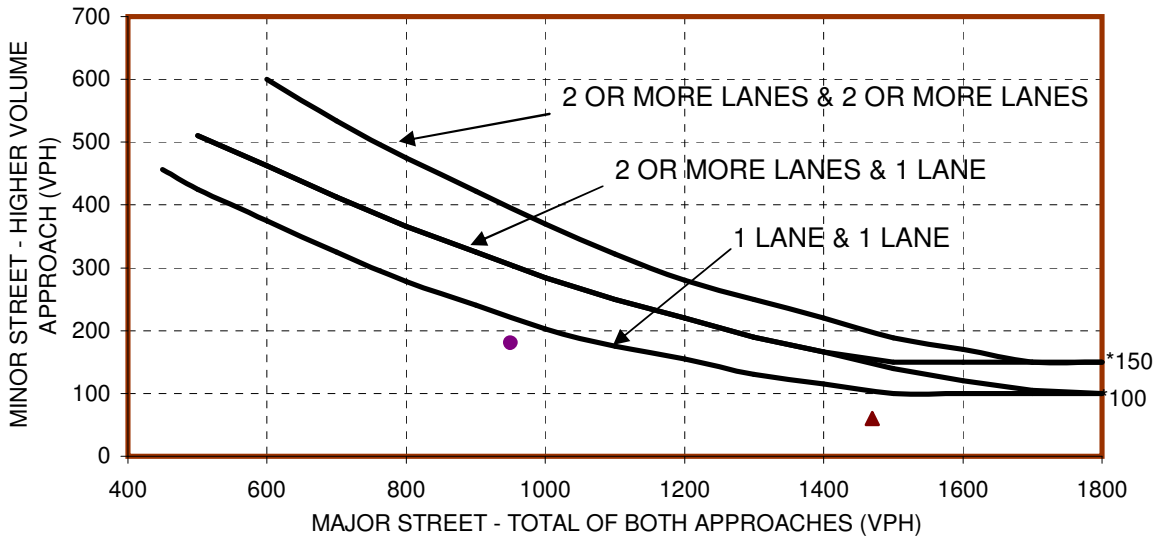
Scenario:	Cumulative Without Project

	Major Street	Minor Street
Street Name	Mathews Road	I-5 NB Ramps
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	950	180
PM	1,470	60

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

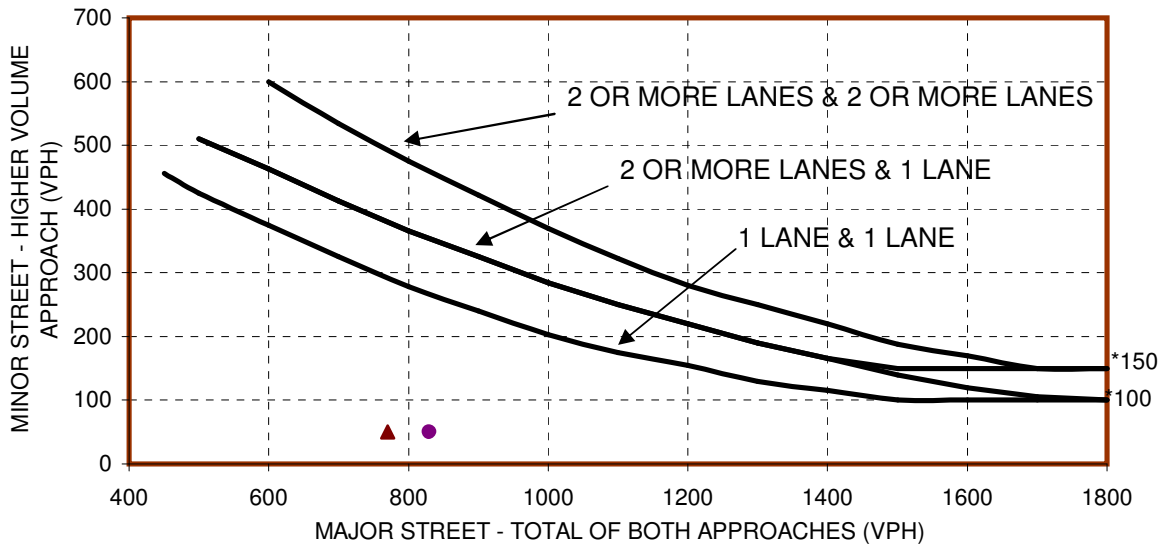
Scenario:	Cumulative Without Project

	Major Street	Minor Street
Street Name	Manthey Road	Yettner Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	830	50
PM	770	50

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

2025 PLUS PROJECT

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

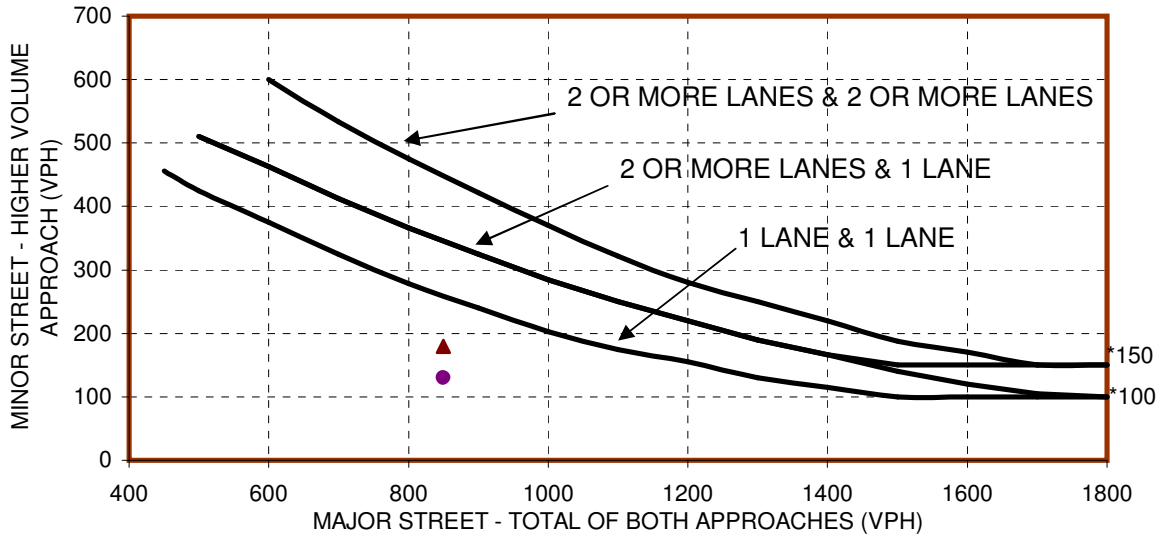
Scenario:	Cumulative With Project

	Major Street	Minor Street
Street Name	Downing Avenue	French Camp Turnpike
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	850	130
PM	850	180

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

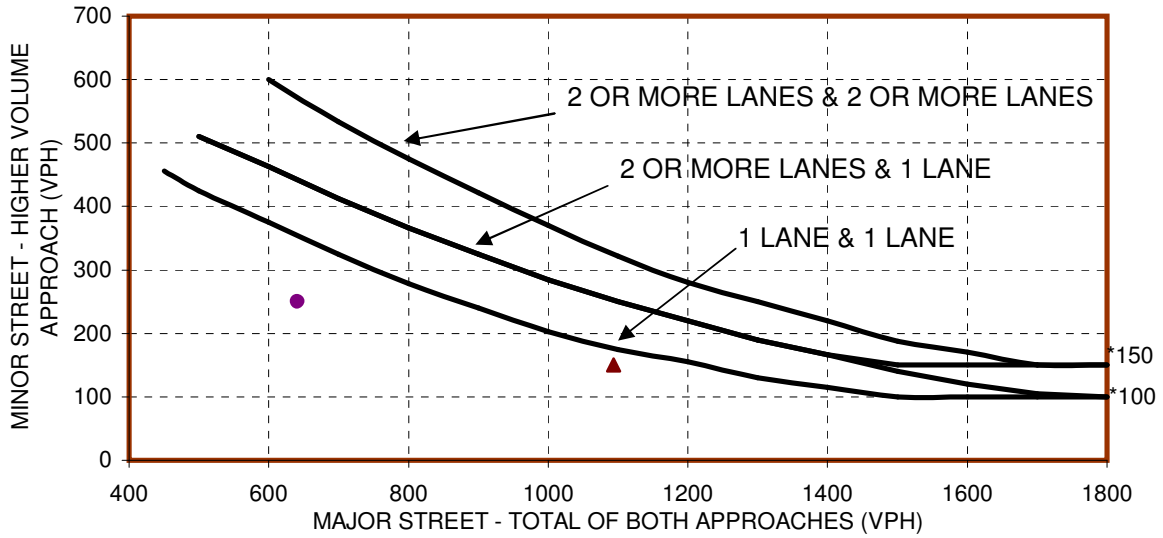
Scenario:	Cumulative With Project

	Major Street	Minor Street
Street Name	McDougald	Herny Long
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	641	250
PM	1,094	150

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

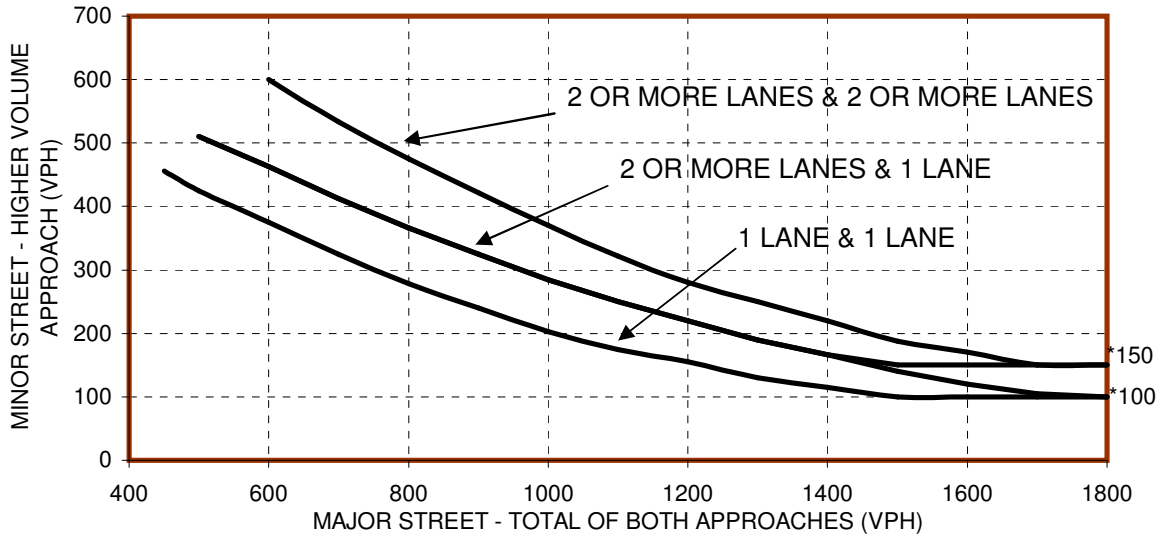
Scenario:	Cumulative With Project

	Major Street	Minor Street
Street Name	Manthey	Henry Long
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	222	125
PM	335	634

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

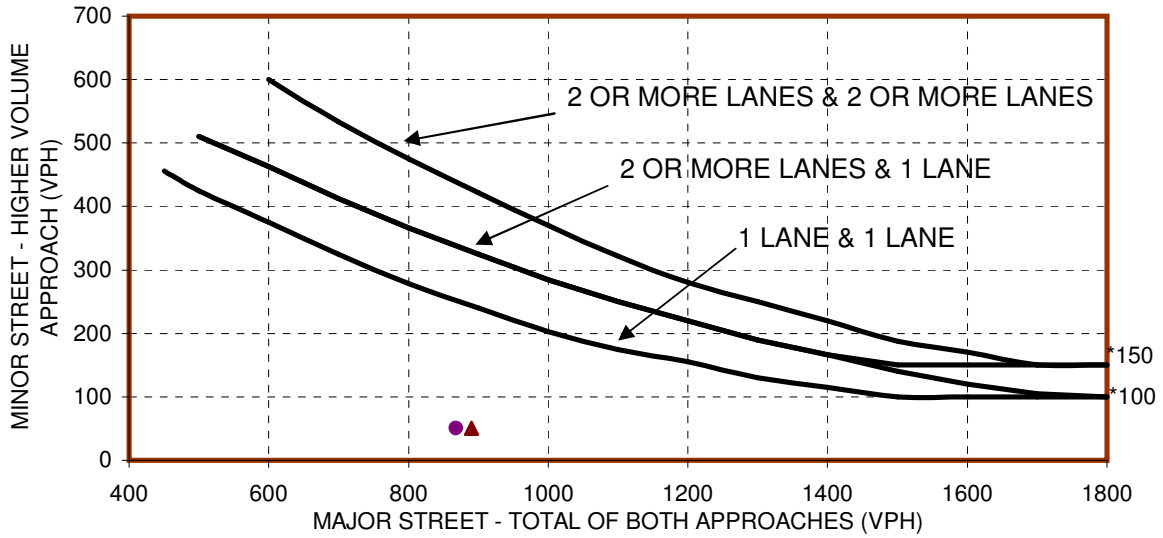
Scenario:	Cumulative With Project

	Major Street	Minor Street
Street Name	Manthey Road	Yettner Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	868	50
PM	890	50

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

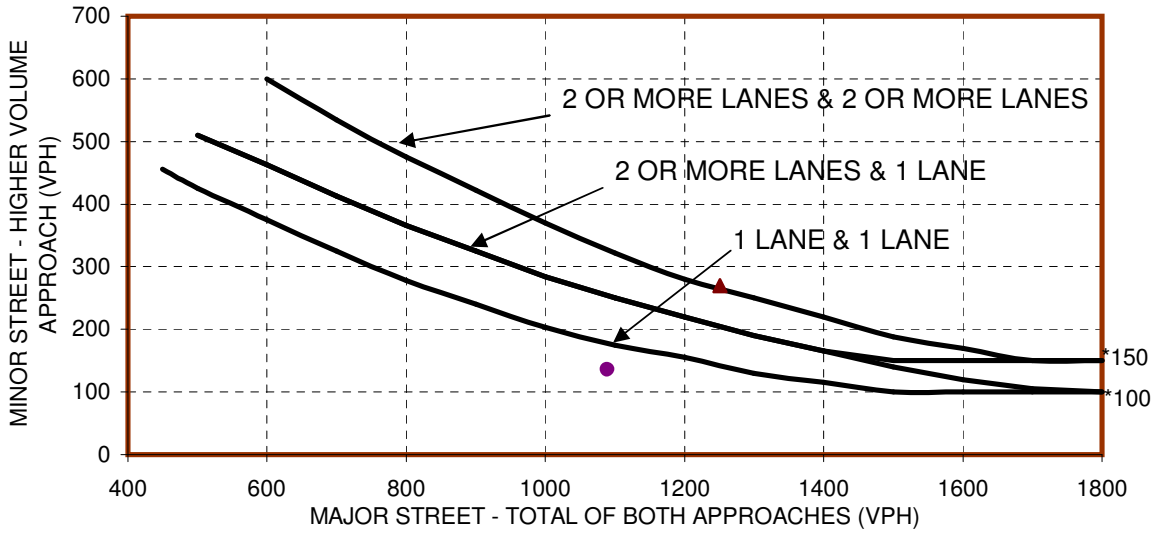
Scenario:	Cumulative With Project

	Major Street	Minor Street
Street Name	Mathews Road	Manthey Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	1,089	136
PM	1,251	270

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

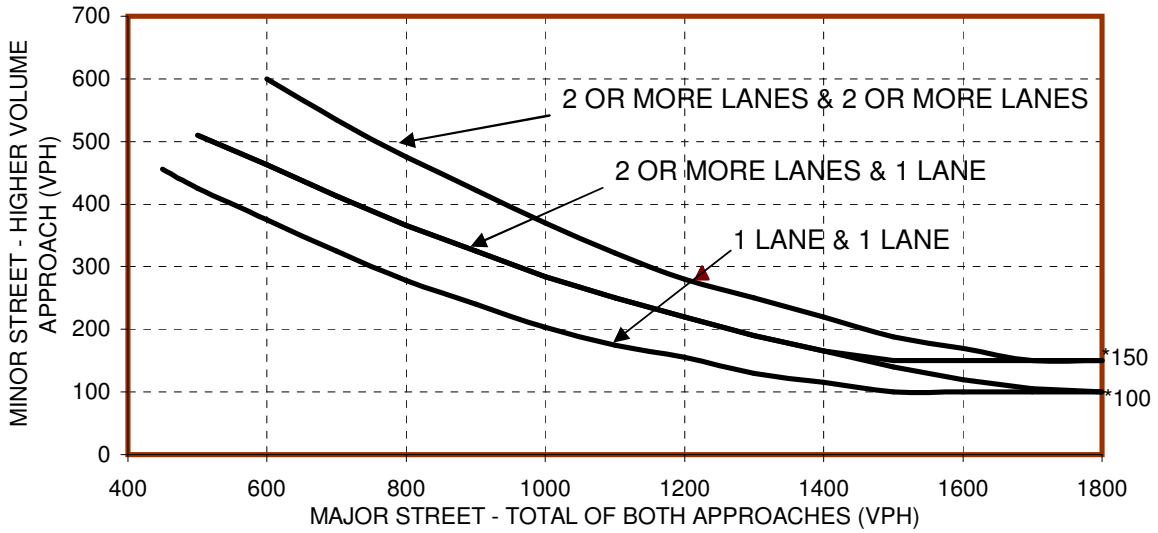
Scenario:	Cumulative With Project

	Major Street	Minor Street
Street Name	Mathews Road	I-5 SB Ramps
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	670	880
PM	1,225	290

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

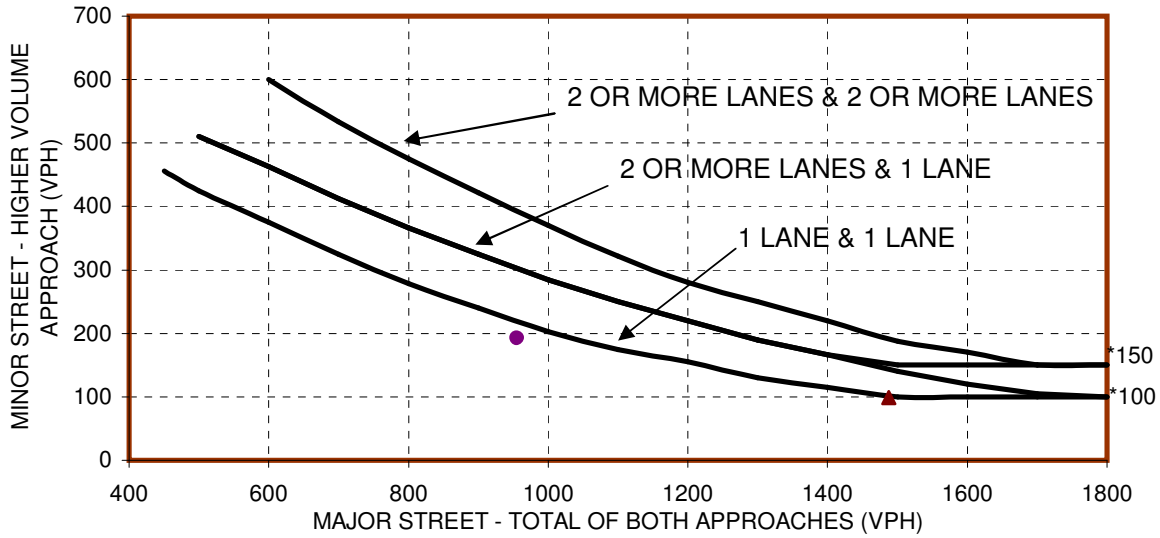
Scenario:	Cumulative With Project

	Major Street	Minor Street
Street Name	Mathews Road	I-5 NB Ramps
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	955	193
PM	1,488	99

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

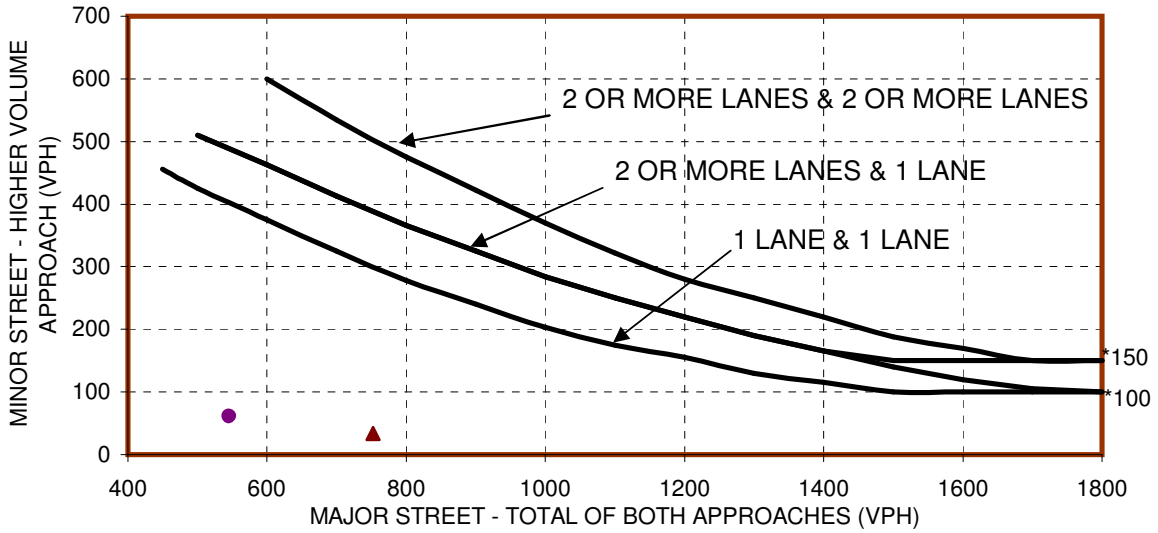
Scenario:	Cumulative With Project

	Major Street	Minor Street
Street Name	Howard Road	Wolfe Road
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	545	61
PM	752	34

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

Warrant	Not Met

2035

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

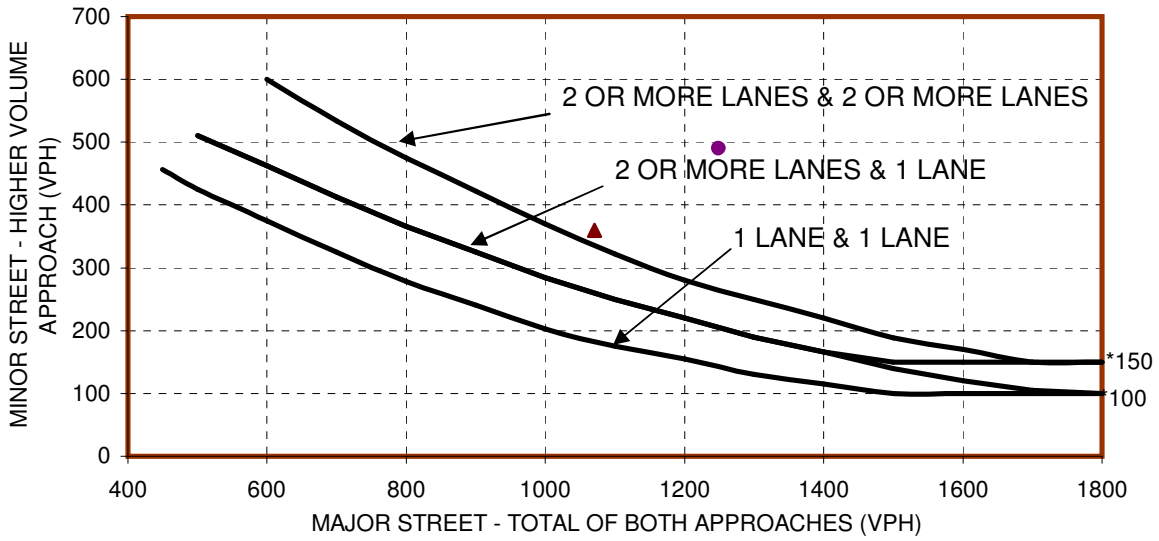
Scenario:	2035 Without Project

	Major Street	Minor Street
Street Name	Downing Avenue	French Camp Turnpike
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	1,249	490
PM	1,071	360

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

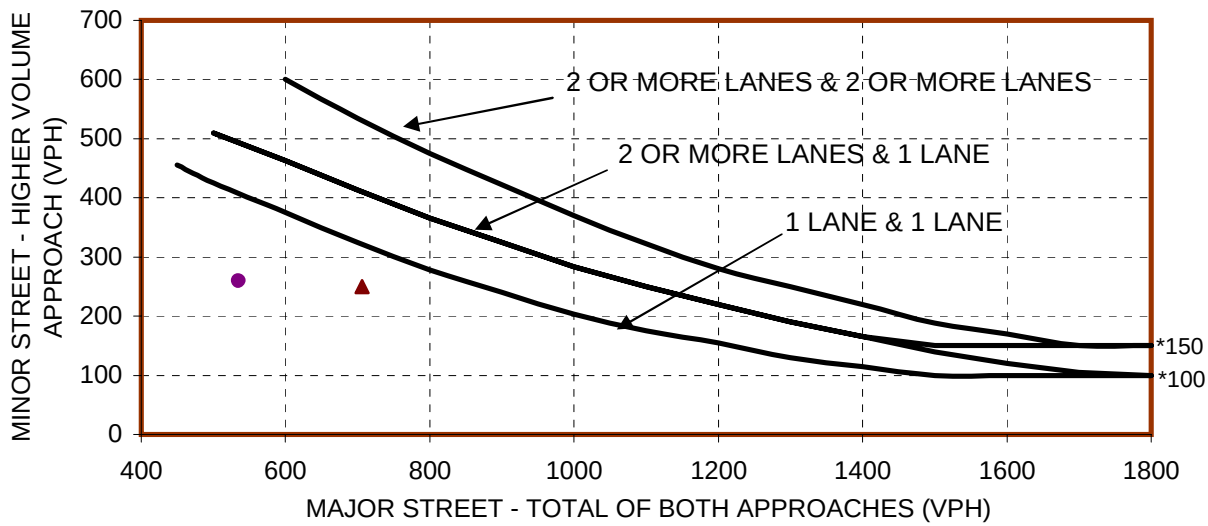
Scenario:	2035 without Project

	Major Street	Minor Street
Street Name	Henry Long	McDougald Boulevard
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	535	260
PM	706	250

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

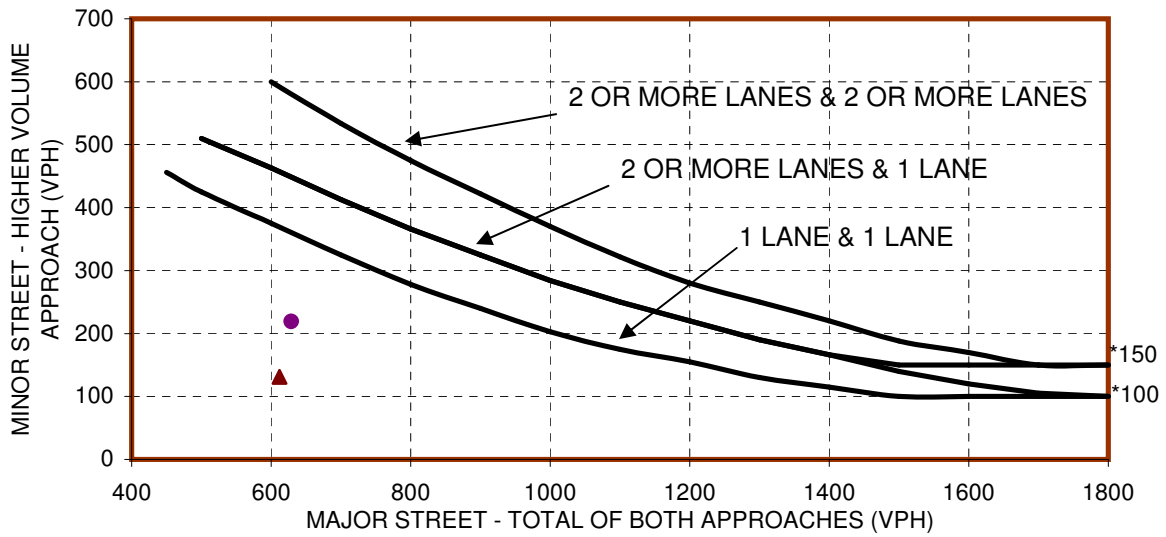
Scenario:	Cumulative With Project

	Major Street	Minor Street
Street Name	Manthey	Henry Long
No of lanes	2	2

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	629	219
PM	612	131

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

2035 PLUS PROJECT

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

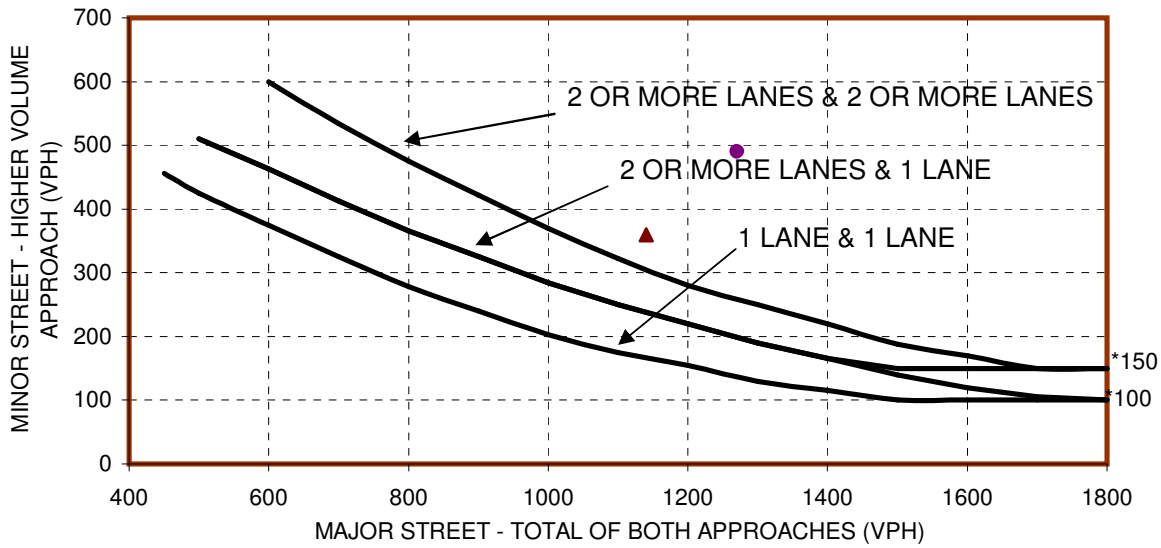
Scenario:	2035 With Project

	Major Street	Minor Street
Street Name	Downing Avenue	French Camp Turnpike
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	1,270	490
PM	1,140	360

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

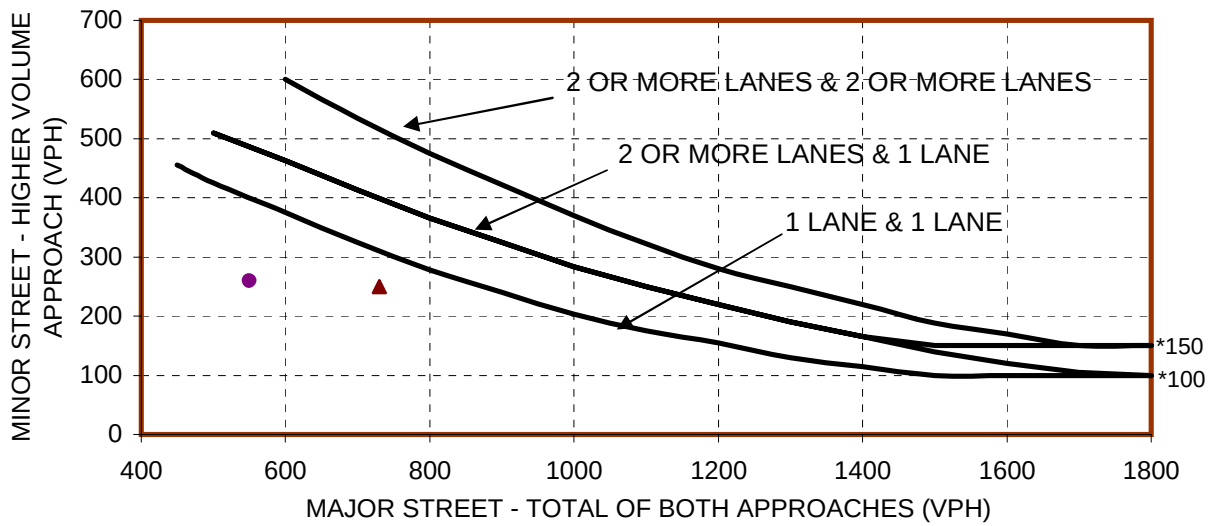
Scenario:	2035 with Project

	Major Street	Minor Street
Street Name	Henry Long	McDougald Boulevard
No of lanes	1	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	550	260
PM	730	250

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for minor street approach with one or lane.

● AM ▲ PM

Warrant	Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

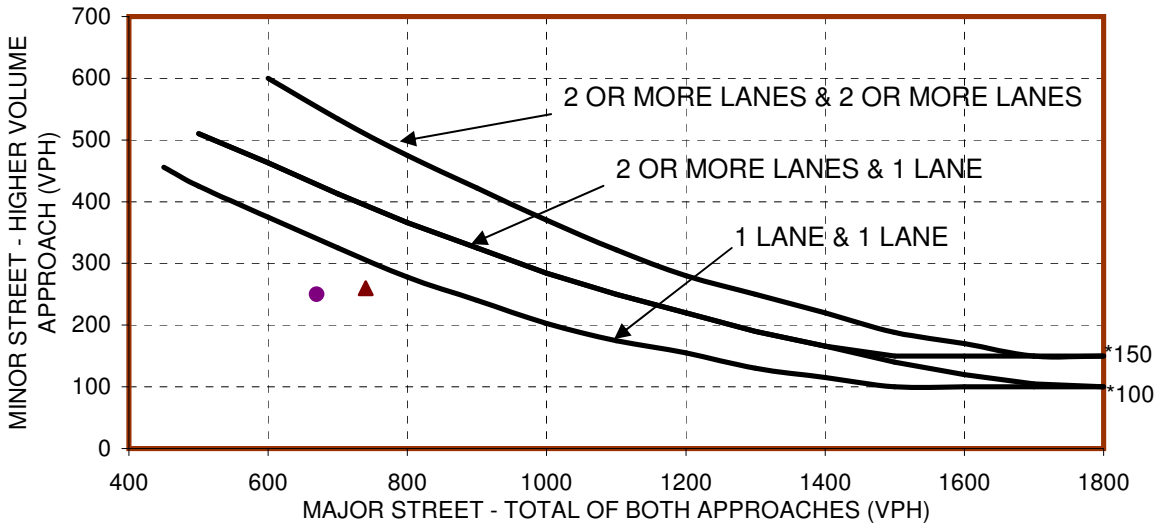
Scenario:	Cumulative With Project

	Major Street	Minor Street
Street Name	Manthey	Henry Long
No of lanes	2	2

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
AM	670	250
PM	740	260

FIGURE 4-5. PEAK HOUR VOLUME WARRANT



*Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with one or lane.

● AM ▲ PM

Warrant	Not Met

APPENDIX D:
FREEWAY ANALYSIS

EXISTING CONDITIONS

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Downing
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	2790	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	734	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1057	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1057	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	15.1	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4690	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1234	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1777	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1777	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	68.1	mi/h
Number of lanes, N	3	
Density, D	26.1	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	2790	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	734	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1057	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1057	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	15.1	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4500	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1184	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1705	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1705	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	68.8	mi/h
Number of lanes, N	3	
Density, D	24.8	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	2610	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	687	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	989	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	989	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	14.1	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne EIR

Flow Inputs and Adjustments

Volume, V	4130	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1087	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1565	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1565	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.6	mi/h
Number of lanes, N	3	
Density, D	22.5	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	2550	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	671	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	966	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	966	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	13.8	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3780	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	995	v
Trucks and buses	0	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	1.000	
Driver population factor, fp	1.00	
Flow rate, vp	1326	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1326	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	18.9	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4500	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1184	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1705	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1705	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	68.8	mi/h
Number of lanes, N	3	
Density, D	24.8	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3870	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1018	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1467	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1467	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.9	mi/h
Number of lanes, N	3	
Density, D	21.0	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2005

Description: Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4500	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1184	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1705	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1705	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	68.8	mi/h
Number of lanes, N	3	
Density, D	24.8	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3520	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	926	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1334	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1334	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	19.1	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2005

Description: Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4070	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1071	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1542	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1542	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.7	mi/h
Number of lanes, N	3	
Density, D	22.1	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3340	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	879	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1266	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1266	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	18.1	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3630	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	955	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1376	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1376	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	19.7	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

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E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3270	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	861	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1239	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1239	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	17.7	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

NEAR-TERM

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3840	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1011	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1455	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1455	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.9	mi/h
Number of lanes, N	3	
Density, D	20.8	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	5230	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1376	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1982	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1982	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	65.2	mi/h
Number of lanes, N	3	
Density, D	30.4	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2005

Description: Weston Ranch Towne Center EIR`

Flow Inputs and Adjustments

Volume, V	2950	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	776	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1118	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1118	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	16.0	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4640	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1221	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1758	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1758	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	68.3	mi/h
Number of lanes, N	3	
Density, D	25.7	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2005

Description: Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	2680	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	705	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1016	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1016	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	14.5	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
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Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4370	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1150	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1656	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1656	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.1	mi/h
Number of lanes, N	3	
Density, D	24.0	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3600	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	947	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1364	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1364	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	19.5	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3920	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1032	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1485	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1485	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.8	mi/h
Number of lanes, N	3	
Density, D	21.3	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	

Flow Inputs and Adjustments

Volume, V	5450	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1434	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2065	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2065	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	63.5	mi/h
Number of lanes, N	3	
Density, D	32.5	pc/mi/ln

Level of service, LOS D

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2005

Description: Weston Ranch Towne Center EIR Plus Mitigation

Flow Inputs and Adjustments

Volume, V	4780	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1258	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1359	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1359	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	4	
Density, D	19.4	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2005

Description: Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4830	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1271	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1830	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1830	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	67.5	mi/h
Number of lanes, N	3	
Density, D	27.1	pc/mi/ln

Level of service, LOS D

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3790	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	997	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1436	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1436	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.9	mi/h
Number of lanes, N	3	
Density, D	20.5	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2005

Description: Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4460	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1174	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1690	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1690	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	68.9	mi/h
Number of lanes, N	3	
Density, D	24.5	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3440	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	905	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1304	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1304	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	18.6	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3770	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	992	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1429	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1429	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.9	mi/h
Number of lanes, N	3	
Density, D	20.4	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3310	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	871	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1254	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1254	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	17.9	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

NEAR TERM PLUS PROJECT

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term + Proj. AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4439	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1168	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1682	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1682	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	68.9	mi/h
Number of lanes, N	3	
Density, D	24.4	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term + Proj. AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3913	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1030	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1483	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1483	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.8	mi/h
Number of lanes, N	3	
Density, D	21.2	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	
Freeway/Direction:	I-5 Southbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	Near-Term

Description: Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4719	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1242	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1788	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1788	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	68.0	mi/h
Number of lanes, N	3	
Density, D	26.3	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term + Proj. AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3993	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1051	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1513	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1513	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.8	mi/h
Number of lanes, N	3	
Density, D	21.7	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term + Proj. AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	

Flow Inputs and Adjustments

Volume, V	5345	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1407	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1519	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1519	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.7	mi/h
Number of lanes, N	4	
Density, D	21.8	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term + Proj. AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	5345	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1407	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2025	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2025	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	64.4	mi/h
Number of lanes, N	3	
Density, D	31.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	
Freeway/Direction:	I-5 Northbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	2778	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	731	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1053	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1053	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	15.0	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	
Freeway/Direction:	I-5 Northbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	Near Term
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3000	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	789	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1137	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1137	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	16.2	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term + Proj. AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	

Flow Inputs and Adjustments

Volume, V	3715	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	978	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1408	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1408	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	20.1	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term + Proj. AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2005

Description: Weston Ranch Towne Center EIR Plus Mitigation

Flow Inputs and Adjustments

Volume, V	3913	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1030	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1112	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1112	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	4	
Density, D	15.9	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term + Proj. PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3722	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	979	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1410	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1410	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	20.2	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

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E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term + Proj. PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4744	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1248	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1798	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1798	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	67.9	mi/h
Number of lanes, N	3	
Density, D	26.5	pc/mi/ln

Level of service, LOS D

Overall results are not computed when free-flow speed is less than 55 mph.

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E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term + Proj. PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	Near-Term
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3997	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1052	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1515	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1515	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.8	mi/h
Number of lanes, N	3	
Density, D	21.7	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

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E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term + Proj. PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3610	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	950	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1368	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1368	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	19.5	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term + Proj. PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2005

Description: Weston Ranch Towne Center EIR Plus Mitigation

Flow Inputs and Adjustments

Volume, V	5082	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1337	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1444	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1444	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.9	mi/h
Number of lanes, N	4	
Density, D	20.7	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
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Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term + Proj. PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	5082	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1337	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1926	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1926	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	66.2	mi/h
Number of lanes, N	3	
Density, D	29.1	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term + Proj. PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	Near Term
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	5037	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1326	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1909	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1909	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	66.4	mi/h
Number of lanes, N	3	
Density, D	28.7	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term + Proj. PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4072	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1072	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1543	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1543	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.7	mi/h
Number of lanes, N	3	
Density, D	22.1	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term + Proj. PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	5750	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1513	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1634	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1634	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.2	mi/h
Number of lanes, N	4	
Density, D	23.6	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	Near Term + Proj. PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2005
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	5750	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1513	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2179	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2179	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	60.7	mi/h
Number of lanes, N	3	
Density, D	35.9	pc/mi/ln
Level of service, LOS	E	

Overall results are not computed when free-flow speed is less than 55 mph.

2025

HCS2000: Basic Freeway Segments Release 4.1d

Kathrin Tellez
Fehr & Peers

Phone: Fax:
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Operational Analysis

Analyst:	KT
Agency or Company:	Fehr & Peers
Date Performed:	4/11/2005
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Downing
Jurisdiction:	City of Stockton
Analysis Year:	Cumulative

Description: Weston Ranch Towne Center

Flow Inputs and Adjustments

Volume, V	6670	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1668	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1801	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1801	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	67.8	mi/h
Number of lanes, N	4	
Density, D	26.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS2000: Basic Freeway Segments Release 4.1d

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Operational Analysis

Analyst:	KT
Agency or Company:	Fehr & Peers
Date Performed:	4/11/2005
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	South of Matthews Road
Jurisdiction:	City of Stockton
Analysis Year:	Cumulative
Description:	Weston Ranch Towne Center

Flow Inputs and Adjustments

Volume, V	4910	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1228	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1768	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1768	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	68.2	mi/h
Number of lanes, N	3	
Density, D	25.9	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS2000: Basic Freeway Segments Release 4.1d

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Operational Analysis

Analyst:	KT
Agency or Company:	Fehr & Peers
Date Performed:	4/11/2005
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	South of French Camp Road
Jurisdiction:	City of Stockton
Analysis Year:	Cumulative
Description:	Weston Ranch Towne Center

Flow Inputs and Adjustments

Volume, V	5050	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1263	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1818	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1818	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	67.6	mi/h
Number of lanes, N	3	
Density, D	26.9	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst:	KT
Agency or Company:	Fehr & Peers
Date Performed:	4/11/2005
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of French Camp Road
Jurisdiction:	City of Stockton
Analysis Year:	Cumulative
Description:	Weston Ranch Towne Center

Flow Inputs and Adjustments

Volume, V	6030	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1508	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1628	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1628	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.3	mi/h
Number of lanes, N	4	
Density, D	23.5	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst:	KT
Agency or Company:	Fehr & Peers
Date Performed:	4/11/2005
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing
Jurisdiction:	City of Stockton
Analysis Year:	Cumulative

Description: Weston Ranch Towne Center

Flow Inputs and Adjustments

Volume, V	6570	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1643	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1774	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1774	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	68.1	mi/h
Number of lanes, N	4	
Density, D	26.0+	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS2000: Basic Freeway Segments Release 4.1d

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Operational Analysis

Analyst:	KT
Agency or Company:	Fehr & Peers
Date Performed:	4/11/2005
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	South of Matthews Road
Jurisdiction:	City of Stockton
Analysis Year:	Cumulative
Description:	Weston Ranch Towne Center

Flow Inputs and Adjustments

Volume, V	3230	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	808	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1163	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1163	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	16.6	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS2000: Basic Freeway Segments Release 4.1d

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Operational Analysis

Analyst:	KT
Agency or Company:	Fehr & Peers
Date Performed:	4/11/2005
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	South of French Camp Road
Jurisdiction:	City of Stockton
Analysis Year:	Cumulative
Description:	Weston Ranch Towne Center

Flow Inputs and Adjustments

Volume, V	3320	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	830	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1195	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1195	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	17.1	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS2000: Basic Freeway Segments Release 4.1d

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Operational Analysis

Analyst:	KT
Agency or Company:	Fehr & Peers
Date Performed:	4/11/2005
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of French Camp Road
Jurisdiction:	City of Stockton
Analysis Year:	Cumulative
Description:	Weston Ranch Towne Center

Flow Inputs and Adjustments

Volume, V	3960	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	990	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1069	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1069	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	4	
Density, D	15.3	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS2000: Basic Freeway Segments Release 4.1d

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Operational Analysis

Analyst:	KT
Agency or Company:	Fehr & Peers
Date Performed:	4/11/2005
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Downing
Jurisdiction:	City of Stockton
Analysis Year:	Cumulative

Description: Weston Ranch Towne Center

Flow Inputs and Adjustments

Volume, V	4300	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1075	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1161	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1161	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	4	
Density, D	16.6	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS2000: Basic Freeway Segments Release 4.1d

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Operational Analysis

Analyst:	KT
Agency or Company:	Fehr & Peers
Date Performed:	4/11/2005
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	South of Matthews Road
Jurisdiction:	City of Stockton
Analysis Year:	Cumulative
Description:	Weston Ranch Towne Center

Flow Inputs and Adjustments

Volume, V	3510	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	878	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1264	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1264	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	18.1	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS2000: Basic Freeway Segments Release 4.1d

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Operational Analysis

Analyst:	KT
Agency or Company:	Fehr & Peers
Date Performed:	4/11/2005
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	South of French Camp Road
Jurisdiction:	City of Stockton
Analysis Year:	Cumulative
Description:	Weston Ranch Towne Center

Flow Inputs and Adjustments

Volume, V	3610	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	903	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1300	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1300	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	18.6	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst:	KT
Agency or Company:	Fehr & Peers
Date Performed:	4/11/2005
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of French Camp Road
Jurisdiction:	City of Stockton
Analysis Year:	Cumulative
Description:	Weston Ranch Towne Center

Flow Inputs and Adjustments

Volume, V	4310	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1078	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1164	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1164	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	4	
Density, D	16.6	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst:	KT
Agency or Company:	Fehr & Peers
Date Performed:	4/11/2005
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing
Jurisdiction:	City of Stockton
Analysis Year:	Cumulative

Description: Weston Ranch Towne Center

Flow Inputs and Adjustments

Volume, V	4690	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1173	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1266	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1266	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	4	
Density, D	18.1	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS2000: Basic Freeway Segments Release 4.1d

Kathrin Tellez
Fehr & Peers

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	KT
Agency or Company:	Fehr & Peers
Date Performed:	4/11/2005
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	South of Matthews Road
Jurisdiction:	City of Stockton
Analysis Year:	Cumulative
Description:	Weston Ranch Towne Center

Flow Inputs and Adjustments

Volume, V	5000	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1250	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1800	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1800	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	67.9	mi/h
Number of lanes, N	3	
Density, D	26.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS2000: Basic Freeway Segments Release 4.1d

Kathrin Tellez
Fehr & Peers

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	KT
Agency or Company:	Fehr & Peers
Date Performed:	4/11/2005
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	South of French Camp Road
Jurisdiction:	City of Stockton
Analysis Year:	Cumulative
Description:	Weston Ranch Towne Center

Flow Inputs and Adjustments

Volume, V	5140	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1285	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1850	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1850	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	67.3	mi/h
Number of lanes, N	3	
Density, D	27.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS2000: Basic Freeway Segments Release 4.1d

Kathrin Tellez
Fehr & Peers

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	KT
Agency or Company:	Fehr & Peers
Date Performed:	4/11/2005
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of French Camp Road
Jurisdiction:	City of Stockton
Analysis Year:	Cumulative
Description:	Weston Ranch Towne Center

Flow Inputs and Adjustments

Volume, V	6130	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1533	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1655	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1655	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.1	mi/h
Number of lanes, N	4	
Density, D	23.9	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

2025 PLUS PROJECT

HCS+: Basic Freeway Segments Release 5.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2025 + Proj. AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2025
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	5119	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1280	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1843	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1843	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	67.3	mi/h
Number of lanes, N	3	
Density, D	27.4	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2025 + Project AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2025
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	6110	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1528	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1650	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1650	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.2	mi/h
Number of lanes, N	4	
Density, D	23.9	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2025 + Proj. AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2025
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4983	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1246	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1794	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1794	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	67.9	mi/h
Number of lanes, N	3	
Density, D	26.4	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2025 + Proj. AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2025
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	6685	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1672	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1805	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1805	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	67.8	mi/h
Number of lanes, N	4	
Density, D	26.6	pc/mi/ln

Level of service, LOS D

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2025 + Project AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2025
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3428	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	857	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1234	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1234	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	17.6	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2025 + Project AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2025
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4010	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1003	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1083	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1083	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	4	
Density, D	15.5	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2025 + Proj. AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2025
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3345	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	837	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1204	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1204	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	17.2	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2025 + Proj. AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2025
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4373	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1094	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1181	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1181	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	4	
Density, D	16.9	pc/mi/ln

Level of service, LOS B

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2025 + Proj. PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2025
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	6970	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1743	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1882	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1882	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	66.8	mi/h
Number of lanes, N	4	
Density, D	28.2	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	
Freeway/Direction:	I-5 Southbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2025
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3610	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	903	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1300	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1300	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	18.6	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2025 + Project PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2025
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4519	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1130	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1220	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1220	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	4	
Density, D	17.4	pc/mi/ln

Level of service, LOS B

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2025 + Proj. PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2025
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	3810	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	953	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1372	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1372	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	19.6	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2025 + Proj. PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2025
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	4992	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1248	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1348	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1348	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	4	
Density, D	19.3	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2025 + Project PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2025
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	5424	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1356	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1953	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1953	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	65.7	mi/h
Number of lanes, N	3	
Density, D	29.7	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2025 + Project PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2025
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	6337	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1585	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1711	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1711	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	68.7	mi/h
Number of lanes, N	4	
Density, D	24.9	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2025 + Proj. PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2025
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	5302	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1326	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1909	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1909	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	66.4	mi/h
Number of lanes, N	3	
Density, D	28.7	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

2035

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	9521	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2381	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2057	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2057	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	63.7	mi/h
Number of lanes, N	5	
Density, D	32.3	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	9493	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2374	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2050	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2050	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	63.8	mi/h
Number of lanes, N	5	
Density, D	32.1	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	9478	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2370	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2047	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2047	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	63.9	mi/h
Number of lanes, N	5	
Density, D	32.0	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	10838	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2710	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2341	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2341	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	55.6	mi/h
Number of lanes, N	5	
Density, D	42.1	pc/mi/ln
Level of service, LOS	E	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	7663	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1916	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1655	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1655	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.1	mi/h
Number of lanes, N	5	
Density, D	23.9	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	8664	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2166	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1871	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1871	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	67.0	mi/h
Number of lanes, N	5	
Density, D	27.9	pc/mi/ln

Level of service, LOS D

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	7528	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1882	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1626	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1626	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.3	mi/h
Number of lanes, N	5	
Density, D	23.5	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	9778	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2445	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2112	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2112	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	62.4	mi/h
Number of lanes, N	5	
Density, D	33.8	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	8349	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2088	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1803	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1803	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	67.8	mi/h
Number of lanes, N	5	
Density, D	26.6	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	9741	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2436	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2104	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2104	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	62.6	mi/h
Number of lanes, N	5	
Density, D	33.6	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	7056	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1764	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1524	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1524	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.7	mi/h
Number of lanes, N	5	
Density, D	21.9	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	10824	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2706	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2338	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2338	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	55.7	mi/h
Number of lanes, N	5	
Density, D	42.0	pc/mi/ln
Level of service, LOS	E	

Overall results are not computed when free-flow speed is less than 55 mph.

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E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	8557	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2140	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1848	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1848	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	67.3	mi/h
Number of lanes, N	5	
Density, D	27.5	pc/mi/ln

Level of service, LOS D

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	9542	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2386	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2061	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2061	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	63.6	mi/h
Number of lanes, N	5	
Density, D	32.4	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	8504	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2126	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1837	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1837	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	67.4	mi/h
Number of lanes, N	5	
Density, D	27.2	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	10926	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2732	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2360	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2360	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	54.9	mi/h
Number of lanes, N	5	
Density, D	43.0	pc/mi/ln
Level of service, LOS	E	

Overall results are not computed when free-flow speed is less than 55 mph.

2035 PLUS PROJECT

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
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Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 + Proj. AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	9570	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2393	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2067	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2067	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	63.5	mi/h
Number of lanes, N	5	
Density, D	32.6	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 + Project AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	9550	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2388	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2063	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2063	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	63.6	mi/h
Number of lanes, N	5	
Density, D	32.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
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Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 + Proj. AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	9530	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2383	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2058	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2058	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	63.7	mi/h
Number of lanes, N	5	
Density, D	32.3	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 + Proj. AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	10920	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2730	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2359	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2359	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	54.9	mi/h
Number of lanes, N	5	
Density, D	43.0	pc/mi/ln
Level of service, LOS	E	

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 + Project AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	7740	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1935	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1672	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1672	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.0	mi/h
Number of lanes, N	5	
Density, D	24.2	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

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Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 + Project AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	8700	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2175	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1879	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1879	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	66.9	mi/h
Number of lanes, N	5	
Density, D	28.1	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 + Proj. AM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of El Dorado Street
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	7610	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1903	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1644	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1644	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.2	mi/h
Number of lanes, N	5	
Density, D	23.8	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 + Proj. AM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	9830	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2458	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2123	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2123	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	62.2	mi/h
Number of lanes, N	5	
Density, D	34.2	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 + Proj. PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2035
Description: Tidewater	

Flow Inputs and Adjustments

Volume, V	8550	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2138	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1847	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1847	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	67.3	mi/h
Number of lanes, N	5	
Density, D	27.4	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 + Proj. PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2035
Description: Tidewater	

Flow Inputs and Adjustments

Volume, V	9890	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2473	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2136	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2136	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	61.8	mi/h
Number of lanes, N	5	
Density, D	34.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 + Proj. PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	11040	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2760	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2385	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2385	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	53.9	mi/h
Number of lanes, N	5	
Density, D	44.2	pc/mi/ln
Level of service, LOS	E	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 + Proj. PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	South of Mathews Road
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch

Flow Inputs and Adjustments

Volume, V	8720	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2180	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1884	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1884	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	66.8	mi/h
Number of lanes, N	5	
Density, D	28.2	pc/mi/ln

Level of service, LOS D

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 + Proj. PM Peak Hour
Freeway/Direction:	I-5 Northbound
From/To:	North of French Camp Road
Jurisdiction:	Stockton
Analysis Year:	2035
Description: Tidewater	

Flow Inputs and Adjustments

Volume, V	9690	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2423	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2093	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2093	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	62.9	mi/h
Number of lanes, N	5	
Density, D	33.3	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 + Proj. PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	North of Downing Avenue
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch Towne Center EIR

Flow Inputs and Adjustments

Volume, V	11140	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	2785	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	2406	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2406	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S		mi/h
Number of lanes, N	5	
Density, D		pc/mi/ln

Level of service, LOS F

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	MEL
Agency or Company:	Fehr & Peers Associates
Date Performed:	12/19/2005
Analysis Time Period:	2035 + Proj. PM Peak Hour
Freeway/Direction:	I-5 Southbound
From/To:	
Jurisdiction:	Stockton
Analysis Year:	2035
Description:	Weston Ranch

Flow Inputs and Adjustments

Volume, V	7270	veh/h
Peak-hour factor, PHF	1.00	
Peak 15-min volume, v15	1818	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	1570	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	0.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1570	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	69.6	mi/h
Number of lanes, N	5	
Density, D	22.6	pc/mi/ln

Level of service, LOS C

Overall results are not computed when free-flow speed is less than 55 mph.

Weston Ranch Towne Center
Internal Intersection Operations
Near-Term

Scenario Report

Scenario:	Near-Term
Command:	Near-Term
Volume:	Near-Term
Geometry:	Near-Term
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

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Weston Ranch Towne Center
Internal Intersection Operations
Near-Term

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 French Camp Road/Right-In/Right-Out Driveway

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: B[11.1]

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	2	0	1
Volume Module:																				
Base Vol:	0	0	0	0	0	0	0	0	0	30	0	0	592	0	0	0	0	772		200
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	30	0	0	592	0	0	0	0	772		200
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
PHF Volume:	0	0	0	0	0	0	0	0	0	30	0	0	592	0	0	0	0	772		200
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
Final Vol.:	0	0	0	0	0	0	0	0	0	30	0	0	592	0	0	0	0	772		200
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx					6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx					3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx					386	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx					618	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx					618	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx					0.05	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx				
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx					0.2	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx					11.1	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	*	*	*	*	*					B	*	*	*	*	*	*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx					xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	*	*	*	*	*	*					*	*	*	*	*	*				
ApproachDel:	xxxxxx					11.1					xxxxxx					xxxxxx				
ApproachLOS:	*					B					*					*				

Note: Queue reported is the number of cars per lane.

Weston Ranch Towne Center
Internal Intersection Operations
Near-Term

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Manthey Road/Driveway A

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: B[13.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 2 0 0			0 0 3 1 0			0 0 0 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	150	1169	0	0	1223	52	0	0	160	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	150	1169	0	0	1223	52	0	0	160	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	150	1169	0	0	1223	52	0	0	160	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	150	1169	0	0	1223	52	0	0	160	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1275	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	332	xxxx	xxxx	xxxxx
Potent Cap.:	551	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	670	xxxx	xxxx	xxxxx
Move Cap.:	551	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	670	xxxx	xxxx	xxxxx
Volume/Cap:	0.27	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.24	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	1.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.9	xxxx	xxxx	xxxxx
Control Del:	13.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	12.1	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			12.1			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the number of cars per lane.

Weston Ranch Towne Center
Internal Intersection Operations
Near-Term

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Manthey Road/Driveway B

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: E[44.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1 1 0			0 1 3 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	1089	80	10	1225	0	0	0	0	50	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1089	80	10	1225	0	0	0	0	50	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1089	80	10	1225	0	0	0	0	50	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	1089	80	10	1225	0	0	0	0	50	0	30
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1169	xxxx	xxxxx	xxxx	xxxx	xxxxx	1455	xxxx	585
Potent Cap.:	xxxx	xxxx	xxxxx	605	xxxx	xxxxx	xxxx	xxxx	xxxxx	123	xxxx	460
Move Cap.:	xxxx	xxxx	xxxxx	605	xxxx	xxxxx	xxxx	xxxx	xxxxx	121	xxxx	460
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.41	xxxx	0.07
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	168	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	11.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	44.6	xxxxx
Shared LOS:	*	*	*	B	*	*	*	*	*	*	E	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			44.6		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

Weston Ranch Towne Center
Internal Intersection Operations
Near-Term

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 Manthey Road/Driveway C

Average Delay (sec/veh): 38.8 Worst Case Level Of Service: F[1082.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 1 1 0			1 0 1 1 0			0 1 0 0 1			1 0 0 1 0		
Volume Module:												
Base Vol:	90	990	30	10	765	50	30	5	410	60	5	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	990	30	10	765	50	30	5	410	60	5	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	990	30	10	765	50	30	5	410	60	5	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	90	990	30	10	765	50	30	5	410	60	5	10
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	815	xxxx	xxxxx	1020	xxxx	xxxxx	1488	2010	408	1590	2020	510
Potent Cap.:	821	xxxx	xxxxx	688	xxxx	xxxxx	88	60	599	74	59	514
Move Cap.:	821	xxxx	xxxxx	688	xxxx	xxxxx	72	52	599	20	52	514
Volume/Cap:	0.11	xxxx	xxxx	0.01	xxxx	xxxx	0.41	0.10	0.68	3.07	0.10	0.02
Level Of Service Module:												
2Way95thQ:	0.4	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	5.3	7.9	xxxx	xxxxx
Control Del:	9.9	xxxx	xxxxx	10.3	xxxx	xxxxx	xxxxx	xxxx	23.1	1344	xxxx	xxxxx
LOS by Move:	A	*	*	B	*	*	*	*	C	F	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	69	xxxx	xxxxx	xxxx	xxxx	129
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.1	xxxx	xxxxx	xxxxx	xxxx	0.4
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	102.9	xxxx	xxxxx	xxxxx	xxxx	36.5
Shared LOS:	*	*	*	*	*	*	F	*	*	*	*	E
ApproachDel:	xxxxxx			xxxxxx			29.3			1082.7		
ApproachLOS:	*			*			D			F		

Note: Queue reported is the number of cars per lane.

Weston Ranch Towne Center
Internal Intersection Operations
Near-Term

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Manthey Road/Driveway D

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: B[10.6]

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	2	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1
Volume Module:																				
Base Vol:	0	1029		10		0	825		0		0		0		0	0		0		10
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	0	1029		10		0	825		0		0		0		0	0		0		10
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	0	1029		10		0	825		0		0		0		0	0		0		10
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
Final Vol.:	0	1029		10		0	825		0		0		0		0	0		0		10
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9								
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3								
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	348								
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	654								
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	654								
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.02								
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0								
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.6								
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	B								
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*								
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			10.6										
ApproachLOS:	*			*			*			B										

Note: Queue reported is the number of cars per lane.

Weston Ranch Towne Center
Internal Intersection Operations
Near-Term

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 Manthey Road (West)/Vacated Henry Long Blvd.

****

Cycle (sec):	90	Critical Vol./Cap.(X):	0.695
Loss Time (sec):	16 (Y+R=4.0 sec)	Average Delay (sec/veh):	26.0
Optimal Cycle:	66	Level Of Service:	C

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 0	1	1 0	0 1	0	0 1	0 0	1	1 0	0 1	0
Volume Module:												
Base Vol:	500	265	274	30	200	10	10	100	400	225	90	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	500	265	274	30	200	10	10	100	400	225	90	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	500	265	274	30	200	10	10	100	400	225	90	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	500	265	274	30	200	10	10	100	400	225	90	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	500	265	274	30	200	10	10	100	400	225	90	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.99	0.99	1.00	1.00	0.85	0.95	0.97	0.97
Lanes:	1.00	1.00	1.00	1.00	0.95	0.05	0.09	0.91	1.00	1.00	0.82	0.18
Final Sat.:	1805	1900	1615	1805	1797	90	172	1719	1615	1805	1513	336
Capacity Analysis Module:												
Vol/Sat:	0.28	0.14	0.17	0.02	0.11	0.11	0.06	0.06	0.25	0.12	0.06	0.06
Crit Moves:	****				****			****		****		
Green/Cycle:	0.40	0.51	0.51	0.05	0.16	0.16	0.08	0.08	0.48	0.18	0.18	0.18
Volume/Cap:	0.69	0.27	0.33	0.33	0.69	0.69	0.69	0.69	0.51	0.69	0.33	0.33
Delay/Veh:	25.5	12.8	13.3	43.5	42.6	42.6	52.7	52.7	16.6	41.0	32.8	32.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.5	12.8	13.3	43.5	42.6	42.6	52.7	52.7	16.6	41.0	32.8	32.8
LOS by Move:	C	B	B	D	D	D	D	D	B	D	C	C
HCM2kAvgQ:	13	4	5	1	7	7	4	4	8	7	3	3

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Note: Queue reported is the number of cars per lane.

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Weston Ranch Towne Center
Internal Intersection Operations
Near-Term

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Vacated Henry Long Blvd./Driveway F

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: B[13.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 0 0 0			0 0 0 1 0			1 0 1 0 0		
Volume Module:												
Base Vol:	40	0	30	0	0	0	0	399	5	10	295	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	0	30	0	0	0	0	399	5	10	295	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	40	0	30	0	0	0	0	399	5	10	295	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	40	0	30	0	0	0	0	399	5	10	295	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	717	xxxx	402	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	404	xxxx	xxxxx
Potent Cap.:	400	xxxx	653	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1166	xxxx	xxxxx
Move Cap.:	397	xxxx	653	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1166	xxxx	xxxxx
Volume/Cap:	0.10	xxxx	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	477	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	13.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	*	*	*
ApproachDel:		13.8		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		B		*			*			*		

Note: Queue reported is the number of cars per lane.

Weston Ranch Towne Center
Internal Intersection Operations
Near-Term

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #10 Vacated Henry Long Blvd./Driveway G

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Average Delay (sec/veh): 2.1 Worst Case Level Of Service: B[13.7]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 1 0 0			0 0 0 1 0		
Volume Module:												
Base Vol:	0	0	0	36	0	40	80	349	0	0	265	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	36	0	40	80	349	0	0	265	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	36	0	40	80	349	0	0	265	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	36	0	40	80	349	0	0	265	20
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	784	xxxx	275	285	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	365	xxxx	769	1289	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	347	xxxx	769	1289	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.10	xxxx	0.05	0.06	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	488	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	13.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx				13.7		xxxxxx			xxxxxx		
ApproachLOS:	*				B		*			*		

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Note: Queue reported is the number of cars per lane.

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Weston Ranch Towne Center
Internal Intersection Operations
2025

Scenario Report

Scenario:	2025
Command:	2025
Volume:	2025
Geometry:	2025
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Weston Ranch Towne Center
Internal Intersection Operations
2025

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 French Camp Road/Right-In/Right-Out Driveway

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: B[13.5]

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0	0	0	3	0	1
Volume Module:																				
Base Vol:	0		0		0	0		0		30	0		742		0	0		1782		200
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	0		0		0	0		0		30	0		742		0	0		1782		200
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Volume:	0		0		0	0		0		30	0		742		0	0		1782		200
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Final Vol.:	0		0		0	0		0		30	0		742		0	0		1782		200
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		xxxxx	xxxx			6.9	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
FollowUpTim:	xxxxx	xxxx		xxxxx		xxxxx	xxxx			3.3	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		xxxx	xxxx			594	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Potent Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx			453	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Move Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx			453	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Volume/Cap:	xxxx	xxxx		xxxx		xxxx	xxxx			0.07	xxxx	xxxx		xxxx		xxxx	xxxx		xxxx	
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx		xxxxx		xxxx	xxxx			0.2	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Control Del:	xxxxx	xxxx		xxxxx		xxxxx	xxxx			13.5	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
LOS by Move:	*	*		*		*	*			B	*	*		*		*	*		*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shared LOS:	*	*		*		*	*		*		*	*		*		*	*		*	
ApproachDel:	xxxxxx					13.5					xxxxxx					xxxxxx				
ApproachLOS:	*					B					*					*				

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Manthey Road/Driveway A

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B[14.5]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 2 0 0			0 0 3 1 0			0 0 0 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	150	1418	0	0	1273	52	0	0	160	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	150	1418	0	0	1273	52	0	0	160	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	150	1418	0	0	1273	52	0	0	160	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	150	1418	0	0	1273	52	0	0	160	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1325	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	344	xxxx	xxxx	xxxxx
Potent Cap.:	528	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	658	xxxx	xxxx	xxxxx
Move Cap.:	528	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	658	xxxx	xxxx	xxxxx
Volume/Cap:	0.28	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.24	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	1.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1.0	xxxx	xxxx	xxxxx
Control Del:	14.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	12.2	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			12.2			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Manthey Road/Driveway B

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: D[32.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1 1	0	0 1	3 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	1338	80	10	1275	0	0	0	0	50	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1338	80	10	1275	0	0	0	0	50	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1338	80	10	1275	0	0	0	0	50	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	1338	80	10	1275	0	0	0	0	50	0	30
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1418	xxxx	xxxxx	xxxx	xxxx	xxxxx	1717	xxxx	709
Potent Cap.:	xxxx	xxxx	xxxxx	487	xxxx	xxxxx	xxxx	xxxx	xxxxx	83	xxxx	381
Move Cap.:	xxxx	xxxx	xxxxx	487	xxxx	xxxxx	xxxx	xxxx	xxxxx	81	xxxx	381
Total Cap:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	748	0	xxxxx	167	0	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.30	xxxx	0.08
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	12.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	211	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.7	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	12.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	32.1	xxxxx
Shared LOS:	*	*	*	B	*	*	*	*	*	*	D	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			32.1		
ApproachLOS:	*			*			*			D		

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 Manthey Road/Driveway C

Average Delay (sec/veh): 107.3 Worst Case Level Of Service: F[3606.2]

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L - T - R					L - T - R					L - T - R					L - T - R				
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	1	1	0	1	0	1	1	0	0	1	0	0	1	0	1	0	0	1
Volume Module:																				
Base Vol:	190	1148		30		10	815		50		30		5	410		60		5		10
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00	1.00		1.00		1.00		1.00
Initial Bse:	190	1148		30		10	815		50		30		5	410		60		5		10
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00	1.00		1.00		1.00		1.00
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00	1.00		1.00		1.00		1.00
PHF Volume:	190	1148		30		10	815		50		30		5	410		60		5		10
Reduct Vol:	0	0		0		0	0		0		0		0	0		0		0		0
Final Vol.:	190	1148		30		10	815		50		30		5	410		60		5		10
Critical Gap Module:																				
Critical Gp:	4.1	xxxx	xxxxx			4.1	xxxx	xxxxx			7.5	6.5		6.9		7.5	6.5		6.9	
FollowUpTim:	2.2	xxxx	xxxxx			2.2	xxxx	xxxxx			3.5	4.0		3.3		3.5	4.0		3.3	
Capacity Module:																				
Cnflict Vol:	865	xxxx	xxxxx			1178	xxxx	xxxxx			1817	2418		433		1973	2428		589	
Potent Cap.:	787	xxxx	xxxxx			600	xxxx	xxxxx			50	33		577		38	32		457	
Move Cap.:	787	xxxx	xxxxx			600	xxxx	xxxxx			33	25		577		7	24		457	
Volume/Cap:	0.24	xxxx	xxxx			0.02	xxxx	xxxx			0.90	0.20		0.71		8.00	0.21		0.02	
Level Of Service Module:																				
2Way95thQ:	0.9	xxxx	xxxxx			0.1	xxxx	xxxxx			xxxx	xxxx		5.8		xxxx	xxxx		0.1	
Control Del:	11.0	xxxx	xxxxx			11.1	xxxx	xxxxx			xxxxx	xxxx		25.1		xxxxx	xxxx		13.1	
LOS by Move:	B	*	*			B	*	*			*	*		D		*	*		B	
Movement:	LT - LTR - RT					LT - LTR - RT					LT - LTR - RT					LT - LTR - RT				
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			32	xxxx	xxxxx			8	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			3.8	xxxx	xxxxx			9.7	xxxx	xxxxx		
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			382.4	xxxx	xxxxx			4159	xxxx	xxxxx		
Shared LOS:	*	*	*			*	*	*			F	*	*			F	*	*		
ApproachDel:	xxxxxx					xxxxxx					53.2					3606.2				
ApproachLOS:	*					*					F					F				

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Manthey Road/Driveway D

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: B[11.0]

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	2	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1
Volume Module:																				
Base Vol:	0	1178		10		0	875		0		0		0		0	0		0		10
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	0	1178		10		0	875		0		0		0		0	0		0		10
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	0	1178		10		0	875		0		0		0		0	0		0		10
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
Final Vol.:	0	1178		10		0	875		0		0		0		0	0		0		10
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx			6.9
FollowUpTim:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx			3.3
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx			398
Potent Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx			607
Move Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx			607
Volume/Cap:	xxxx	xxxx		xxxx		xxxx	xxxx		xxxx		xxxx	xxxx		xxxx		xxxx	xxxx			0.02
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx			0.1
Control Del:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx			11.0
LOS by Move:	*	*		*		*	*		*		*	*		*		*	*			B
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx			xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx			xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx			xxxxx
Shared LOS:	*	*		*		*	*		*		*	*		*		*	*			*
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					11.0				
ApproachLOS:	*					*					*					B				

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Manthey Road (West)/Vacated Henry Long Blvd.

Cycle (sec):	90	Critical Vol./Cap.(X):	0.670
Loss Time (sec):	16 (Y+R=4.0 sec)	Average Delay (sec/veh):	27.1
Optimal Cycle:	63	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 0	1	1 0	0 1	0	0 1	0 0	1	1 0	0 1	0
Volume Module:												
Base Vol:	400	265	523	30	200	10	10	100	400	275	90	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	400	265	523	30	200	10	10	100	400	275	90	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	400	265	523	30	200	10	10	100	400	275	90	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	400	265	523	30	200	10	10	100	400	275	90	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	400	265	523	30	200	10	10	100	400	275	90	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.99	0.99	1.00	1.00	0.85	0.95	0.97	0.97
Lanes:	1.00	1.00	1.00	1.00	0.95	0.05	0.09	0.91	1.00	1.00	0.82	0.18
Final Sat.:	1805	1900	1615	1805	1797	90	172	1719	1615	1805	1513	336
Capacity Analysis Module:												
Vol/Sat:	0.22	0.14	0.32	0.02	0.11	0.11	0.06	0.06	0.25	0.15	0.06	0.06
Crit Moves:			****	****				****		****		
Green/Cycle:	0.34	0.48	0.48	0.02	0.17	0.17	0.09	0.09	0.43	0.23	0.23	0.23
Volume/Cap:	0.66	0.29	0.67	0.67	0.66	0.66	0.67	0.67	0.58	0.67	0.26	0.26
Delay/Veh:	27.9	14.1	20.0	76.4	39.7	39.7	50.1	50.1	21.1	36.0	28.9	28.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.9	14.1	20.0	76.4	39.7	39.7	50.1	50.1	21.1	36.0	28.9	28.9
LOS by Move:	C	B	C	E	D	D	D	D	C	D	C	C
HCM2kAvgQ:	10	4	12	2	7	7	4	4	9	8	3	3

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Vacated Henry Long Blvd./Driveway F

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: C[19.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 0 0 0			0 0 0 1 0			1 0 1 0 0		
Volume Module:												
Base Vol:	40	0	30	0	0	0	0	648	5	10	345	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	0	30	0	0	0	0	648	5	10	345	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	40	0	30	0	0	0	0	648	5	10	345	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	40	0	30	0	0	0	0	648	5	10	345	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1016	xxxx	651	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	653	xxxx	xxxxx
Potent Cap.:	266	xxxx	472	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	943	xxxx	xxxxx
Move Cap.:	264	xxxx	472	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	943	xxxx	xxxxx
Volume/Cap:	0.15	xxxx	0.06	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	326	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	19.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	*	*	*	*	*	*	*	*
ApproachDel:		19.1		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		C		*			*			*		

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 Vacated Henry Long Blvd./Driveway G

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: C[17.7]

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	1	0	0	0	0	0	1	0
Volume Module:																				
Base Vol:	0		0		0	36		0		40	80		598		0	0		315		20
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	0		0		0	36		0		40	80		598		0	0		315		20
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Volume:	0		0		0	36		0		40	80		598		0	0		315		20
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Final Vol.:	0		0		0	36		0		40	80		598		0	0		315		20
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		6.4	xxxx		6.2		4.1	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
FollowUpTim:	xxxxx	xxxx		xxxxx		3.5	xxxx		3.3		2.2	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		1083	xxxx		325		335	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Potent Cap.:	xxxx	xxxx		xxxxx		243	xxxx		721		1236	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Move Cap.:	xxxx	xxxx		xxxxx		231	xxxx		721		1236	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Volume/Cap:	xxxx	xxxx		xxxx		0.16	xxxx		0.06		0.06	xxxx		xxxx		xxxx	xxxx		xxxx	
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		0.2	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Control Del:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		8.1	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
LOS by Move:	*	*		*		*	*		*		A	*		*		*	*		*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	359		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	0.8		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	17.7		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shared LOS:	*	*		*		*	C		*		*	*		*		*	*		*	
ApproachDel:	xxxxxx					17.7					xxxxxx					xxxxxx				
ApproachLOS:	*					C					*					*				

Note: Queue reported is the number of cars per lane.

Weston Ranch Towne Center
Internal Intersection Operations
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Scenario Report

Scenario:	2035
Command:	2035
Volume:	2035
Geometry:	2035
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Weston Ranch Towne Center
Internal Intersection Operations
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 French Camp Road/Right-In/Right-Out Driveway

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: B[13.2]

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0	0	0	3	0	1
Volume Module:																				
Base Vol:	0		0		0	0		0		30	0		1270		0	0		1720		200
Growth Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	0		0		0	0		0		30	0		1270		0	0		1720		200
User Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	0		0		0	0		0		30	0		1270		0	0		1720		200
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Final Vol.:	0		0		0	0		0		30	0		1270		0	0		1720		200
Critical Gap Module:																				
Critical Gp:	xxxxx		xxxx		xxxxx	xxxxx		xxxx		6.9	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
FollowUpTim:	xxxxx		xxxx		xxxxx	xxxxx		xxxx		3.3	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Capacity Module:																				
Cnflict Vol:	xxxx		xxxx		xxxxx	xxxx		xxxx		573	xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx
Potent Cap.:	xxxx		xxxx		xxxxx	xxxx		xxxx		467	xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx
Move Cap.:	xxxx		xxxx		xxxxx	xxxx		xxxx		467	xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx
Volume/Cap:	xxxx		xxxx		xxxx	xxxx		xxxx		0.06	xxxx		xxxx		xxxx	xxxx		xxxx		xxxx
Level Of Service Module:																				
2Way95thQ:	xxxx		xxxx		xxxxx	xxxx		xxxx		0.2	xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx
Control Del:	xxxxx		xxxx		xxxxx	xxxxx		xxxx		13.2	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
LOS by Move:	*		*		*	*		*		B	*		*		*	*		*		*
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx
SharedQueue:	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Shrd ConDel:	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Shared LOS:	*		*		*	*		*		*	*		*		*	*		*		*
ApproachDel:	xxxxxx					13.2					xxxxxx					xxxxxx				
ApproachLOS:	*					B					*					*				

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Manthey Road/Driveway A

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: B[13.7]

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	2	0	0	0	0	3	1	0	0	0	0	0	1	0	0	0	0	0
Volume Module:																				
Base Vol:	150	1530		0		0	1170		80		0		0		160	0		0		0
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	150	1530		0		0	1170		80		0		0		160	0		0		0
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	150	1530		0		0	1170		80		0		0		160	0		0		0
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
Final Vol.:	150	1530		0		0	1170		80		0		0		160	0		0		0
Critical Gap Module:																				
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx		6.9	xxxxx	xxxx	xxxxx							
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx		3.3	xxxxx	xxxx	xxxxx							
Capacity Module:																				
Cnflict Vol:	1250	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx		333	xxxx	xxxx	xxxxx							
Potent Cap.:	564	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx		669	xxxx	xxxx	xxxxx							
Move Cap.:	564	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx		669	xxxx	xxxx	xxxxx							
Volume/Cap:	0.27	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx		0.24	xxxx	xxxx	xxxx							
Level Of Service Module:																				
2Way95thQ:	1.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx		0.9	xxxx	xxxx	xxxxx							
Control Del:	13.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx		12.1	xxxxx	xxxx	xxxxx							
LOS by Move:	B	*	*	*	*	*	*	*		B	*	*	*							
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx		xxxxx	xxxx	xxxx	xxxxx							
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx		xxxxx	xxxxx	xxxx	xxxxx							
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx		xxxxx	xxxxx	xxxx	xxxxx							
Shared LOS:	*	*	*	*	*	*	*	*		*	*	*	*							
ApproachDel:	xxxxxx			xxxxxx			12.1				xxxxxx									
ApproachLOS:	*			*			B				*									

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Manthey Road/Driveway B

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: E[37.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1 1	0	0 1	3 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	1450	80	10	1200	0	0	0	0	50	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1450	80	10	1200	0	0	0	0	50	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1450	80	10	1200	0	0	0	0	50	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	1450	80	10	1200	0	0	0	0	50	0	30
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1530	xxxx	xxxxx	xxxx	xxxx	xxxxx	1810	xxxx	765
Potent Cap.:	xxxx	xxxx	xxxxx	441	xxxx	xxxxx	xxxx	xxxx	xxxxx	72	xxxx	350
Move Cap.:	xxxx	xxxx	xxxxx	441	xxxx	xxxxx	xxxx	xxxx	xxxxx	70	xxxx	350
Total Cap:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	742	0	xxxxx	147	0	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.34	xxxx	0.09
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	13.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	188	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.9	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	13.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	37.6	xxxxx
Shared LOS:	*	*	*	B	*	*	*	*	*	*	E	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			37.6		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 Manthey Road/Driveway C

Average Delay (sec/veh): 105.2 Worst Case Level Of Service: F[3606.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 1 1 0			1 0 1 1 0			0 1 0 0 1			0 1 0 0 1		
Volume Module:												
Base Vol:	190	1260	30	10	740	50	30	5	410	60	5	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	190	1260	30	10	740	50	30	5	410	60	5	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	190	1260	30	10	740	50	30	5	410	60	5	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	190	1260	30	10	740	50	30	5	410	60	5	10
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	790	xxxx	xxxxx	1290	xxxx	xxxxx	1798	2455	395	2048	2465	645
Potent Cap.:	839	xxxx	xxxxx	544	xxxx	xxxxx	51	31	610	33	31	420
Move Cap.:	839	xxxx	xxxxx	544	xxxx	xxxxx	34	24	610	8	23	420
Volume/Cap:	0.23	xxxx	xxxx	0.02	xxxx	xxxx	0.87	0.21	0.67	8.00	0.21	0.02
Level Of Service Module:												
2Way95thQ:	0.9	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	5.1	xxxx	xxxx	0.1
Control Del:	10.5	xxxx	xxxxx	11.7	xxxx	xxxxx	xxxxx	xxxx	22.2	xxxxx	xxxx	13.8
LOS by Move:	B	*	*	B	*	*	*	*	C	*	*	B
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	32	xxxx	xxxxx	8	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.8	xxxx	xxxxx	9.7	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	368.4	xxxx	xxxxx	4159	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	F	*	*	F	*	*
ApproachDel:	xxxxxx			xxxxxx			49.4			3606.4		
ApproachLOS:	*			*			E			F		

Note: Queue reported is the number of cars per lane.

Weston Ranch Towne Center
Internal Intersection Operations
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Manthey Road/Driveway D

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: B[11.4]

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	2	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1
Volume Module:																				
Base Vol:	0	1290		10		0	800		0		0		0		0	0		0		10
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	0	1290		10		0	800		0		0		0		0	0		0		10
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	0	1290		10		0	800		0		0		0		0	0		0		10
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
Final Vol.:	0	1290		10		0	800		0		0		0		0	0		0		10
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx			6.9
FollowUpTim:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx			3.3
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx			435
Potent Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx			575
Move Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx			575
Volume/Cap:	xxxx	xxxx		xxxx		xxxx	xxxx		xxxx		xxxx	xxxx		xxxx		xxxx	xxxx			0.02
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx			0.1
Control Del:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx			11.4
LOS by Move:	*	*		*		*	*		*		*	*		*		*	*			B
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx			xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx			xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx			xxxxx
Shared LOS:	*	*		*		*	*		*		*	*		*		*	*			*
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					11.4				
ApproachLOS:	*					*					*					B				

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Manthey Road (West)/Vacated Henry Long Blvd.

Cycle (sec):	90	Critical Vol./Cap.(X):	0.704
Loss Time (sec):	16 (Y+R=4.0 sec)	Average Delay (sec/veh):	24.6
Optimal Cycle:	67	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 1 0 1			1 0 0 1 0			0 1 0 0 1			1 0 0 1 0		
Volume Module:												
Base Vol:	400	265	635	30	200	10	10	100	400	200	90	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	400	265	635	30	200	10	10	100	400	200	90	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	400	265	635	30	200	10	10	100	400	200	90	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	400	265	635	30	200	10	10	100	400	200	90	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	400	265	635	30	200	10	10	100	400	200	90	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.99	0.99	1.00	1.00	0.85	0.95	0.97	0.97
Lanes:	1.00	1.00	1.00	1.00	0.95	0.05	0.09	0.91	1.00	1.00	0.82	0.18
Final Sat.:	1805	1900	1615	1805	1797	90	172	1719	1615	1805	1513	336
Capacity Analysis Module:												
Vol/Sat:	0.22	0.14	0.39	0.02	0.11	0.11	0.06	0.06	0.25	0.11	0.06	0.06
Crit Moves:			****	****				****		****		
Green/Cycle:	0.39	0.56	0.56	0.02	0.19	0.19	0.08	0.08	0.47	0.16	0.16	0.16
Volume/Cap:	0.57	0.25	0.70	0.70	0.57	0.57	0.70	0.70	0.53	0.70	0.38	0.38
Delay/Veh:	22.8	10.3	17.0	85.3	35.0	35.0	53.8	53.8	17.5	43.7	34.8	34.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.8	10.3	17.0	85.3	35.0	35.0	53.8	53.8	17.5	43.7	34.8	34.8
LOS by Move:	C	B	B	F	D	D	D	D	B	D	C	C
HCM2kAvgQ:	9	4	14	2	6	6	4	4	8	7	3	3

Note: Queue reported is the number of cars per lane.

Weston Ranch Towne Center
Internal Intersection Operations
2035

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Vacated Henry Long Blvd./Driveway F

Average Delay (sec/veh): 1.2 Worst Case Level Of Service: C[17.5]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	40	0	30	0	0	0	0	760	5	10	270	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	0	30	0	0	0	0	760	5	10	270	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	40	0	30	0	0	0	0	760	5	10	270	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	40	0	30	0	0	0	0	760	5	10	270	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	918	xxxx	383	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	765	xxxx	xxxxx
Potent Cap.:	275	xxxx	621	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	857	xxxx	xxxxx
Move Cap.:	272	xxxx	621	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	857	xxxx	xxxxx
Volume/Cap:	0.15	xxxx	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.2	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	359	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	17.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	*	*	*	*	*	*	*	*
ApproachDel:		17.5			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		C			*			*			*	

Note: Queue reported is the number of cars per lane.

Weston Ranch Towne Center
Internal Intersection Operations
2035

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 Vacated Henry Long Blvd./Driveway G

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B[13.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	30	0	40	80	710	0	0	240	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	30	0	40	80	710	0	0	240	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	30	0	40	80	710	0	0	240	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	30	0	40	80	710	0	0	240	20
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	765	xxxx	130	260	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	344	xxxx	902	1316	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	328	xxxx	902	1316	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.09	xxxx	0.04	0.06	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	515	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	13.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx				13.1		xxxxxx			xxxxxx		
ApproachLOS:	*				B		*			*		

Note: Queue reported is the number of cars per lane.

Appendix E

Supplemental 2035 Analysis

E-1 Supplemental 2035 Transportation and Circulation Analysis

This supplemental section addresses the 2035 condition both without and with the proposed project:

- ***Future 2035 Without Project*** – Future (Year 2035) forecast conditions, based on the Stockton *2035 General Plan Update* and *Infrastructure Master Plans Project* (City of Stockton, 2005) taking into account future development in the City of Stockton and the surrounding jurisdictions in addition to planned roadway improvements.

- ***Future 2035 With Project*** – Future (Year 2035) forecasted conditions plus project-related traffic.

The *1990 General Plan* build-out, which was the basis for the 2025 analysis, includes about 160,000 residential units and about 170 million square feet of non-residential uses. The *2035 General Plan Update* build-out is proposed to include about 210,000 residential units and 200 million square feet of non-residential uses. These plans take into account future development in the City of Stockton and the surrounding jurisdictions in addition to planned roadway improvements.

The *2035 General Plan Update EIR* is currently being prepared; however, it is uncertain when the EIR will be completed and the *2035 General Plan Update* adopted. When complete, the EIR provide an assessment of the updated General Plan, the infrastructure master plans, and the expansions to the City's existing Urban Services Boundary and Sphere of Influence. Because the *2035 General Plan Update* has not yet been adopted, a supplemental cumulative analysis for 2035 conditions both without and with the project was conducted and is provided in below for informational purposes.

Project Traffic

Trip generation of the proposed project in 2035 is the same as shown in Table 4.7-7 of section 4.7 for the near-term and 2025 scenarios,

Trip Distribution

The proposed Stockton *2035 General Plan Update* traffic model was used as a preliminary means to determine general trip distribution patterns for the Weston Ranch Towne Center in 2035. Market data as well as existing traffic patterns were used to refine the trip distribution percentages. Trip distribution percentages are presented in Table E-1 and Figure E-1 for the Future 2035 conditions.

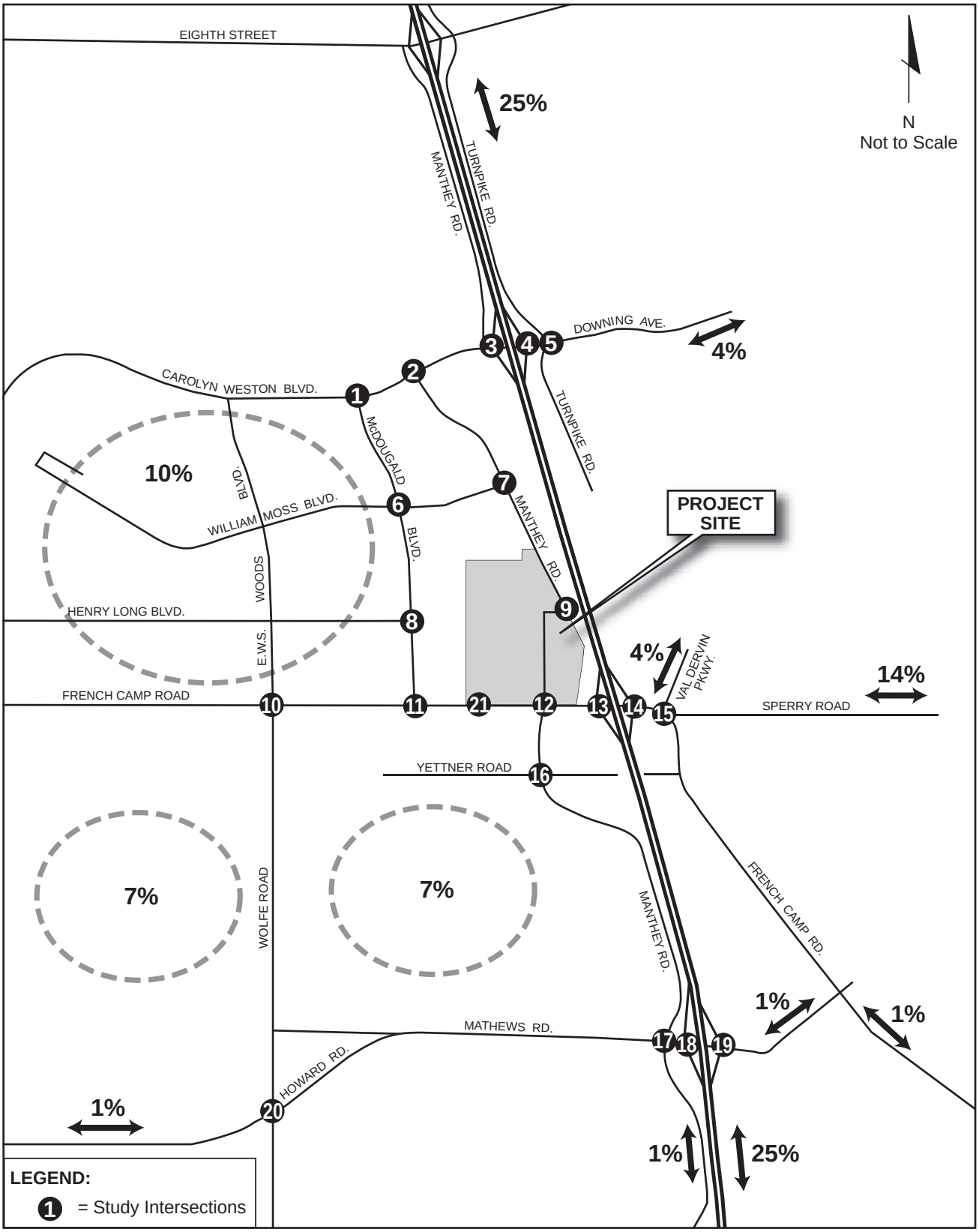
TABLE E-1
WESTON RANCH TOWNE CENTER TRIP DISTRIBUTION PERCENTAGES

Roadway Facility	Future 2035
I-5, northbound via Downing Avenue	8%
I-5, northbound via French Camp Road	17%
I-5, southbound via French Camp Road	23%
I-5, southbound via Mathews Road	2%
Downing Avenue, East	4%
Manthey Road, South	1%
French Camp Road, East	1%
Sperry Road, East	14%
Weston Ranch Area	24%
El Dorado Street, North	0%
Val Dervin Parkway to El Dorado Street	4%
Howard Road, West	1%
Mathews Road, East	1%
Total	**100%**

Note: N/A = Not Applicable. The Sperry Road and Val Dervin Parkway extensions would not be constructed until the Future 2025 scenario.

Source: Fehr & Peers, 2006.

Trips generated by the project were assigned to the roadway system based on the directions of approach and departure shown in Table E-1. AM and PM peak hour project trip assignments are shown on Figure E-2 for the Future 2035 analysis.



Weston Ranch Towne Center EIR

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2035 CUMULATIVE PROJECT TRIP DISTRIBUTION

September 2006
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FIGURE E-1

LEGEND: XX (YY) = AM (PM) Peak Hour

NOTE: Project Trip Assignment includes diverted and pass-by trips.

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2035 CUMULATIVE PEAK HOUR PROJECT VOLUMES

September 2006
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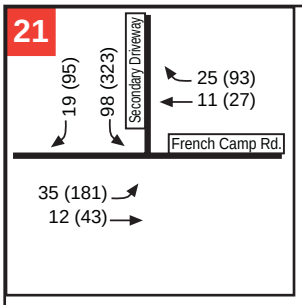
FIGURE E-2A



LEGEND: XX (YY) = AM (PM) Peak Hour

NOTE: Project Trip Assignment includes diverted and pass-by trips.

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2035 CUMULATIVE PEAK HOUR TRAFFIC VOLUMES

September 2006
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FIGURE E-2B

Future 2035 Analysis

This section discusses the methods used to develop the Future 2035 traffic forecasts with and without the project, based on the *2035 General Plan Update*. As the *2035 General Plan Update* has not yet been approved, this analysis was conducted as a supplemental cumulative analysis, based on projected 2035 conditions and is for information purposes only.

The *2035 General Plan Update*, with a planning horizon year of 2035, envisions population growth in Stockton beyond that included in the *1990 General Plan*. Current estimates are that the 2035 scenario from the *2035 General Plan Update* includes citywide population of over 600,000 (210,000 residential units), while the 2025 scenario from the *1990 General Plan* included total population of approximately 430,000 (160,000 residential units). In the *2035 General Plan Update*, substantial new development activity is anticipated in the areas west of I-5 and south of French Camp Road, as well as the areas east of I-5 and south of Sperry Road. The additional growth in these areas will contribute higher traffic volumes to study area roadways than was projected in the Future 2025 scenario based on the *1990 General Plan*. In addition, the *2035 General Plan Update* accounts for continued growth outside of Stockton to the year 2035.

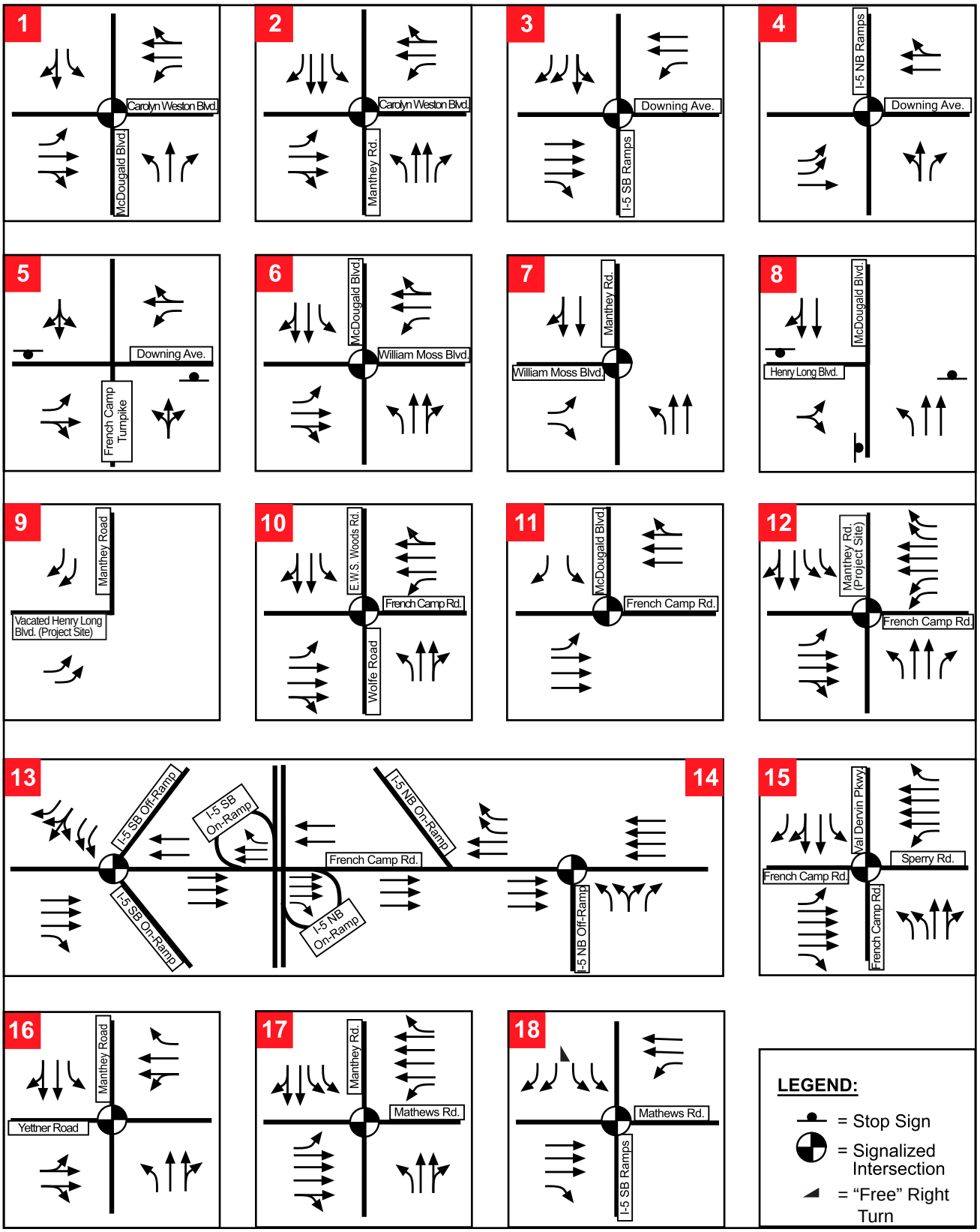
Planned Transportation Improvements

Several major roadway improvements in the study area are being considered as part of the *2035 General Plan Update* and are described in Table E-2. Future lane configurations at the study intersections are shown on Figure E-3. These improvements were used in developing the Future 2035 traffic forecasts.

Intersection Forecasts

Future 2035 intersection traffic forecasts were developed using the *2035 General Plan Update* traffic model as of December 2005. Traffic forecasts from the model were adjusted using the delta method, which considers the difference between the base year and the future year traffic model. In addition, these forecasts were compared to the Near-term and Future 2025 Without Project volumes to ensure appropriate travel patterns and growth. The Future 2035 Without Project forecasts are shown on Figure E-4.

The peak hour project traffic volumes from Figure E-2 were added to the Future 2035 Without Project volumes to determine future traffic volumes with the project. Future 2035 With Project peak hour traffic volumes are shown on Figure E-5.



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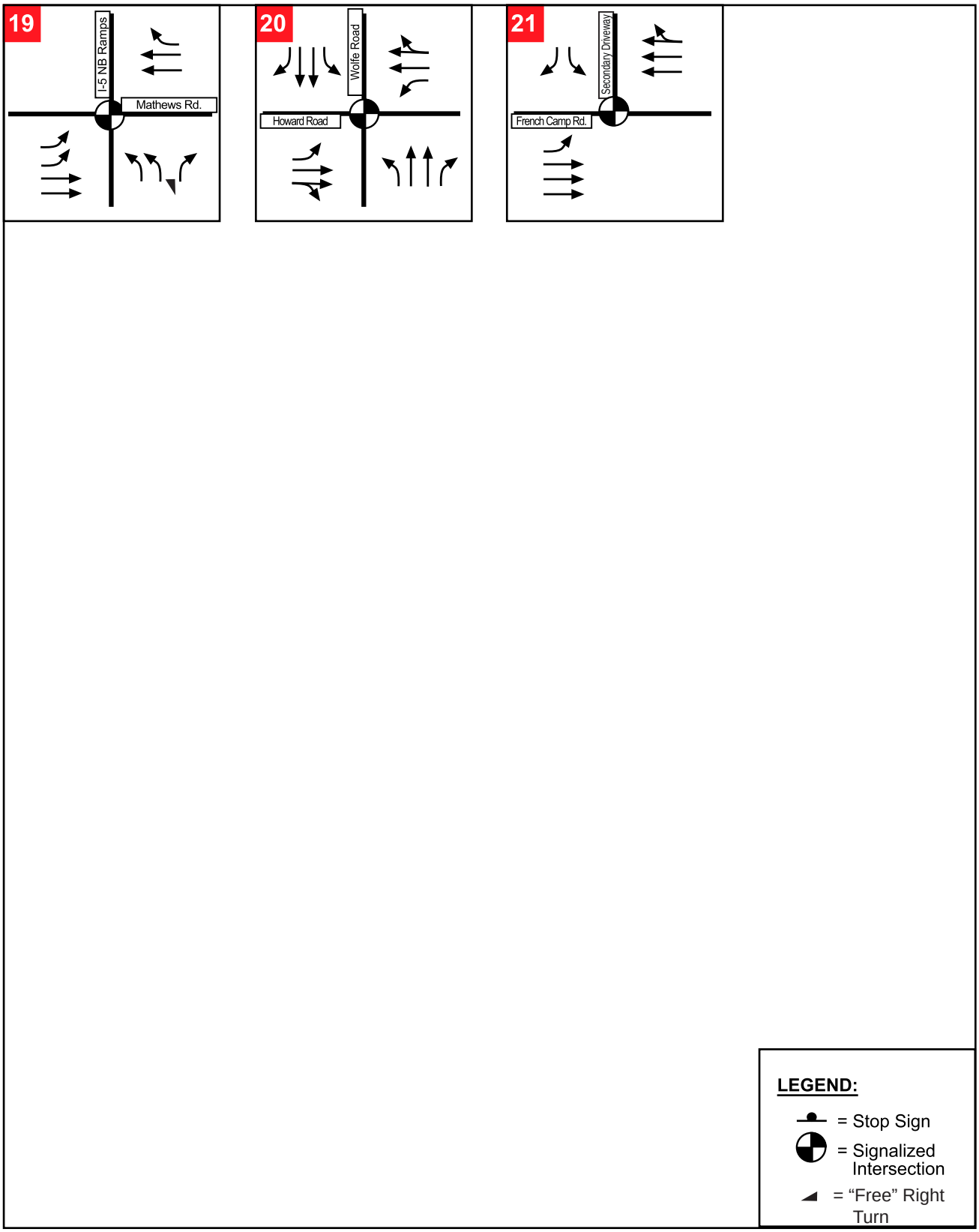
Weston Ranch Towne Center EIR

2035 CUMULATIVE LANE CONFIGURATIONS AND TRAFFIC CONTROL

FIGURE E-3A



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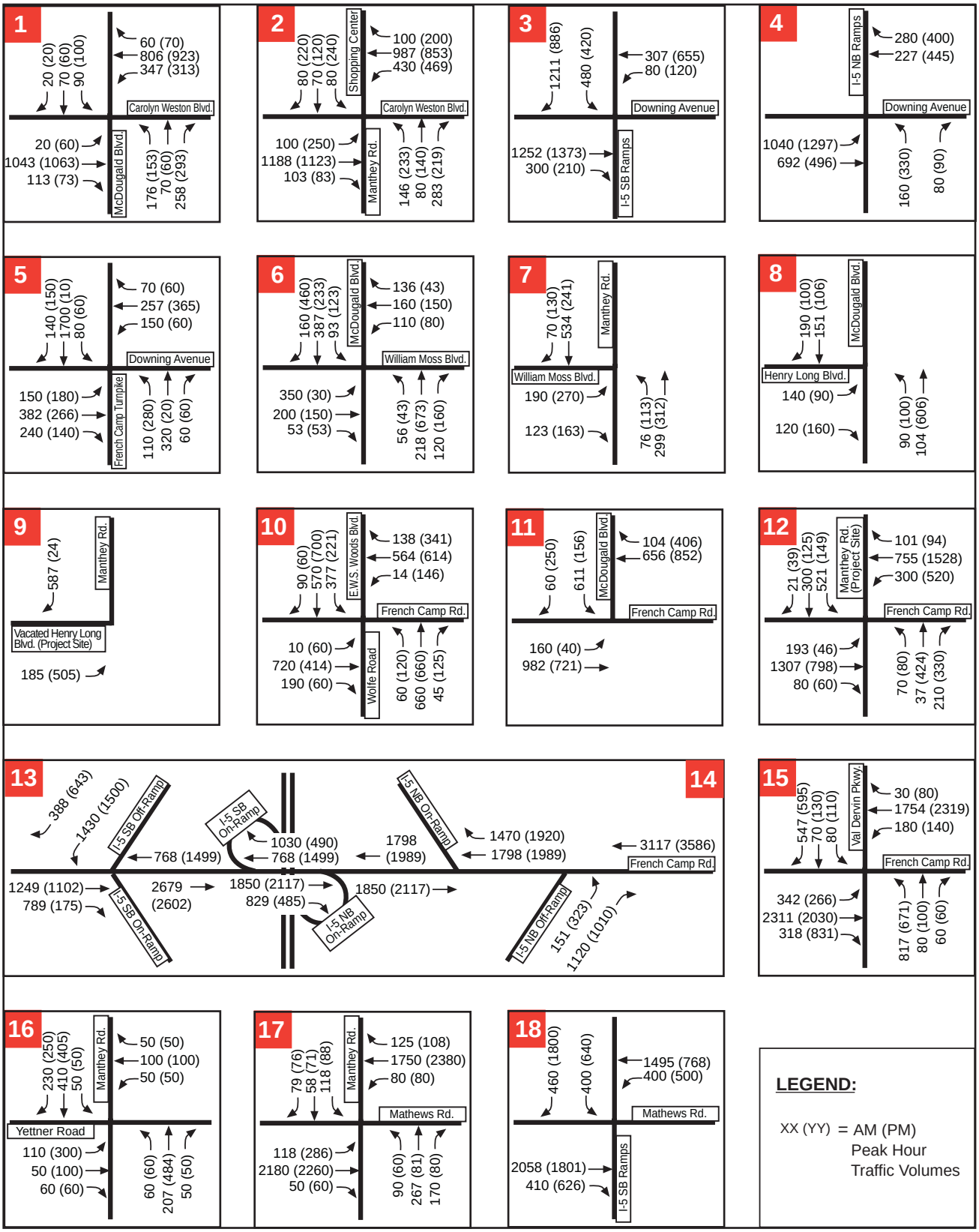
2035 CUMULATIVE LANE CONFIGURATIONS AND TRAFFIC CONTROL

September 2006
Graphics\September 2006\E-3B

FIGURE E-3B



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2035 CUMULATIVE WITHOUT PROJECT PEAK HOUR TRAFFIC VOLUMES

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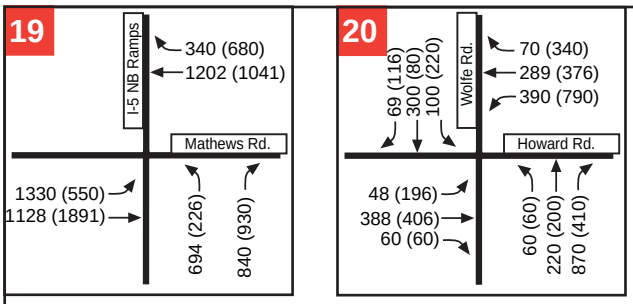
FIGURE E-4A



LEGEND:

XX (YY) = AM (PM) Peak Hour Traffic Volumes

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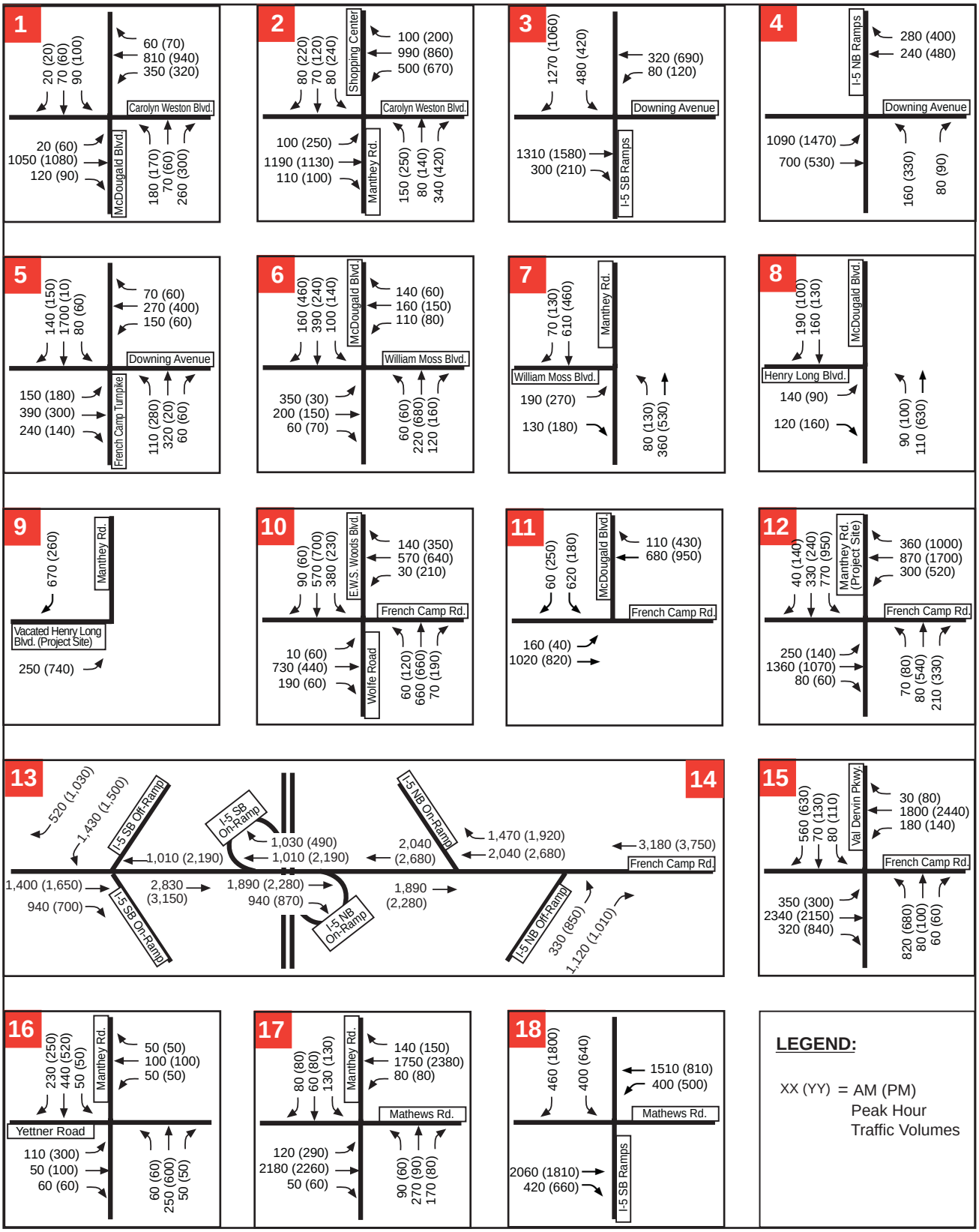
2035 CUMULATIVE WITHOUT PROJECT PEAK HOUR TRAFFIC VOLUMES

September 2006
Graphics\September 2006\E-4B

FIGURE E-4B



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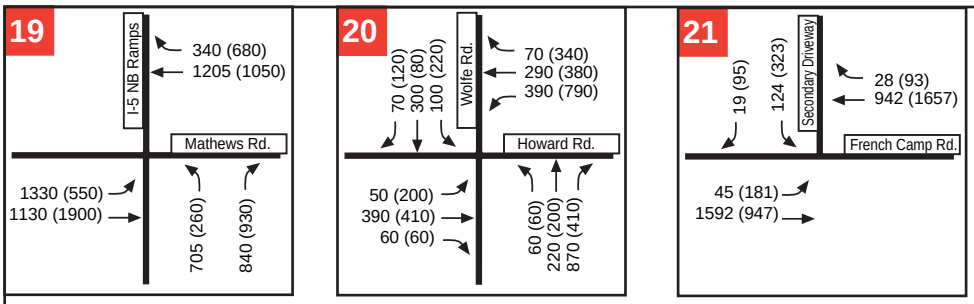
2035 CUMULATIVE WITH PROJECT PEAK HOUR TRAFFIC VOLUMES

September 2006
Graphics\September 2006\E-5A

FIGURE E-5A



LEGEND:

XX (YY) = AM (PM) Peak Hour Traffic Volumes

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Weston Ranch Towne Center EIR

2035 CUMULATIVE WITH PROJECT PEAK HOUR TRAFFIC VOLUMES

September 2006
Graphics\September 2006\E-5B

FIGURE E-5B

TABLE E-2
PLANNED ROADWAY IMPROVEMENTS FOR 2035 SCENARIO

Location	Lane Configuration
I-5	Ten lanes between Downing Avenue and Mathews Road
French Camp Road	Eight lanes between Manthey Road and Sperry Road Six Lanes between Wolfe Road and Manthey Road
I-5/French Camp Road Interchange	Construction of an L-9 Interchange including loop on-ramps in the southeast and northwest quadrants. In conjunction with this improvement, Manthey Road would be realigned to the west and Val Dervin Parkway to the east across from the Sperry Road/French Camp Road intersection.
El Dorado Street	Six lanes north of the proposed Sperry Road extension Four lanes south of the proposed Sperry Road extension
Manthey Road	Four lanes between Carolyn Weston Boulevard and Mathews Road
Sperry Road/Arch-Airport Road	Eight lanes between French Camp Road and Airport Way
Mathews Road	Eight lanes from west of Manthey Road to I-5 Six lanes from west of Manthey Road to Wolfe Road
I-5/Mathews Road Interchange	Construction of a diamond interchange with a seven-lane cross section (including turn lanes) under the freeway, and northbound and southbound free right-turn lanes.

SOURCE: City-wide Traffic Model for the 2035 General Plan Update, conversations with City staff.

Analysis of Future 2035 Conditions

Intersection Analysis

The Future 2035 Without Project conditions analysis results are shown in Table E-3. The results indicate that all study intersections but one (French Camp Turnpike/Downing Avenue) would operate at acceptable LOS ranges (i.e., LOS D or better) prior to the addition of project traffic. No additional intersections are projected to operate at deficient service levels with the addition of project traffic.

Signal Warrants

To assess the need for signalization of stop-controlled intersections, the MUTCD presents eight signal warrants. The Peak Hour Volume Warrant (Warrant 3) is used in this study as a supplemental analysis tool to assess operations at the unsignalized intersections.[1] The results of the peak hour volume warrant analysis are shown in Table E-4.

As shown in Table E-4 peak hour signal warrants would be satisfied at the Downing Avenue/ Turnpike Drive intersection, although they would not be satisfied at the McDougald Boulevard intersection with Henry Long Boulevard in the Future 2035 condition. The addition of project traffic is not expected to cause the McDougald Boulevard/Henry Long Boulevard intersection to satisfy peak hour signal warrants.

[1] See footnote 3 of Section 4.7.

TABLE E-3
FUTURE 2035 PEAK HOUR INTERSECTION OPERATIONS

	Intersection	Control	Peak Hour	Future 2035 Without Project		Future 2035 With Project	
				Delay	LOS	Delay	LOS
1.	McDougald Boulevard/ Carolyn Weston Boulevard	Signal	AM	41	D	42	D
			PM	41	D	42	D
2.	Manthey Road/Carolyn Weston Boulevard	Signal	AM	31	C	33	C
			PM	41	D	45	D
3.	I-5 Southbound Ramps/ Downing Avenue	Signal	AM	21	C	22	C
			PM	21	C	24	C
4.	I-5 Northbound Ramps/ Downing Avenue	Signal	AM	16	B	16	B
			PM	29	C	43	D
5.	French Camp Turnpike/ Downing Avenue	SSSC	AM	**> 50 (> 50)**	**F (F)**	**> 50 (> 50)**	**F (F)**
			PM	**> 50 (>50)**	**F (F)**	**> 50 (>50)**	**F (F)**
6.	McDougald Boulevard/ William Moss Boulevard	Signal	AM	25	C	25	C
			PM	23	C	23	C
7.	Manthey Road/William Moss Boulevard	Signal	AM	13	B	13	B
			PM	16	B	16	B
8.	McDougald Boulevard/ Henry Long Boulevard	AWSC	AM	10	A	10	A
			PM	12	B	12	B
10.	Wolfe Road/EWS Woods Boulevard/ French Camp Road	Signal	AM	33	C	34	C
			PM	30	C	32	C
11.	McDougald Boulevard/ French Camp Road	Signal	AM	26	C	26	C
			PM	16	B	16	B
12.	Manthey Road/French Camp Road	Signal	AM	30	C	33	C
			PM	31	C	39	D
13.	I-5 Southbound Ramps/ French Camp Road	Signal	AM	24	C	26	C
			PM	29	C	42	D
14.	I-5 Northbound Ramps/ French Camp Road	Signal	AM	26	C	28	C
			PM	18	B	29	C
15.	French Camp Road/Val Dervin Parkway/Sperry Road	Signal	AM	35	C	39	D
			PM	38	D	49	D
16.	Manthey Road/Yettner Road	Signal	AM	20	B	20	B
			PM	27	C	30	C
17.	Manthey Road/Mathews Road	Signal	AM	24	C	23	C
			PM	24	C	26	C
18.	I-5 Southbound Ramps/Mathews Road	Signal	AM	15	B	15	B
			PM	24	C	24	C
19.	I-5 Northbound Ramps/ Mathews Road	Signal	AM	44	D	44	D
			PM	13	B	17	B
20.	Wolfe Road/Howard Road	Signal	AM	44	D	44	D
			PM	47	D	47	D
21.	Secondary Project Driveway/ French Camp Road	Signal	AM	N/A	N/A	12	B
			PM			19	B

Notes:

Signal = signalized intersection; SSSC = side street stop-controlled intersection; AWSC = all-way stop-controlled intersection
Delay for worst movement (average intersection delay) at SSSC intersections.
N/A = Not Applicable, this driveway only exists with the proposed project

Bold = deficient operations; Bold/italics = significant impact

SOURCE: Fehr & Peers, 2006

TABLE E-4
FUTURE 2035 PEAK HOUR SIGNAL WARRANT ANALYSIS

Intersection	Peak Hour Warrant Met?	
	Future 2035 Without Project	Future 2035 With Project
5. French Camp Turnpike/Downing Avenue	Met	Met
8. McDougald Boulevard/Henry Long Boulevard	Not Met	Not Met

SOURCE: Federal Highway Administration, 2000

Freeway Analysis

The I-5 freeway mainline segments from north of Downing Avenue to south of Mathews Road were analyzed based on the peak hour volumes shown in Table E-5 and the LOS criteria shown in Table 4.7-3 of section 4.7, assuming that I-5 was widened to ten lanes through the study area by 2035. The analysis results indicate that most sections of I-5 in the study area would operate at LOS D or better during both peak hours with or without project traffic in the Future 2035 scenarios, with a few exceptions:

- I-5 northbound north of Downing Avenue would operate at LOS E during the PM peak hour without. This segment would degrade to LOS F with the addition of project traffic, although the project would increase traffic volumes on this segment by less than 5 percent. Therefore, the project impact is considered less than significant.

- I-5 southbound north of Downing Avenue would operate at LOS E during both the AM and PM peak hours, both without and with the proposed project. The project would increase traffic volumes on this segment by less than 5 percent; therefore, the project impact is considered less than significant.

Detailed service level calculations are presented in Appendix E.

TABLE E-5
FUTURE 2035 PEAK HOUR FREEWAY ANALYSIS

			Without Project			With Project			
Segment	**Direction of Travel**	**Peak Hour**	**Volume**	**Density**	**LOS**	**Volume**	**Density**	**LOS**	**Percentage Increase**
North of Downing Avenue	North	AM	9,778	34	D	9,830	34	D	0.5
		PM	10,926	**43**	**E**	11,140	**> 45**	**F**	1.9
North of Downing Avenue	South	AM	10,838	**42**	**E**	10,920	**43**	**E**	0.8
		PM	10,824	**42**	**E**	11,040	**44**	**E**	2.0
North of French Camp Road	North	AM	8,664	28	D	8,700	28	D	0.4
		PM	9,542	32	D	9,690	33	D	1.5
North of French Camp Road	South	AM	9,493	32	D	9,550	33	D	0.6
		PM	9,741	34	D	9,890	35	D	1.5
South of French Camp Road	North	AM	7,663	24	C	7,740	24	C	1.0
		PM	8,557	28	D	8,760	28	D	2.3
South of French Camp Road	South	AM	9,521	32	C	9,570	33	D	0.5
		PM	8,349	27	D	8,550	27	D	2.4
South of Mathews Road	North	AM	7,528	24	C	7,610	24	C	1.1
		PM	8,504	27	D	8,720	28	D	2.5
South of Mathews Road	South	AM	9,478	32	D	9,530	32	D	0.5
		PM	7,056	22	C	7,270	23	C	2.9

Notes:

Density measured in passenger cars per mile per lane.
Mainline segment level of service based on vehicle density, according to the Highway Capacity Manual (Transportation Research Board, 2000).

Bold = deficient operations; Bold/italics = significant impact

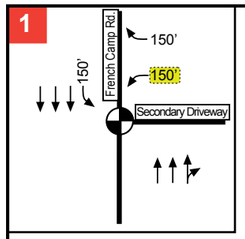
SOURCE: Fehr & Peers, 2006

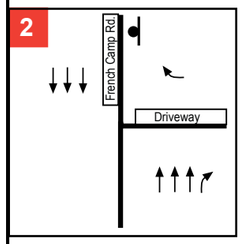
Site Plan Review

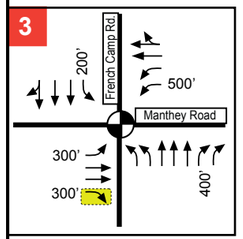
This section analyses site access and internal circulation in the 2035 condition. This analysis is based on a site plan dated June 2006, shown on Figure E-6. This analysis is also based on projected 2035 traffic volumes on the public roadways adjacent to the site.

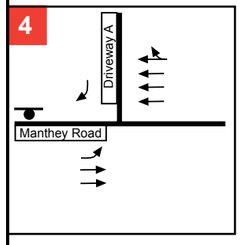
Site Access

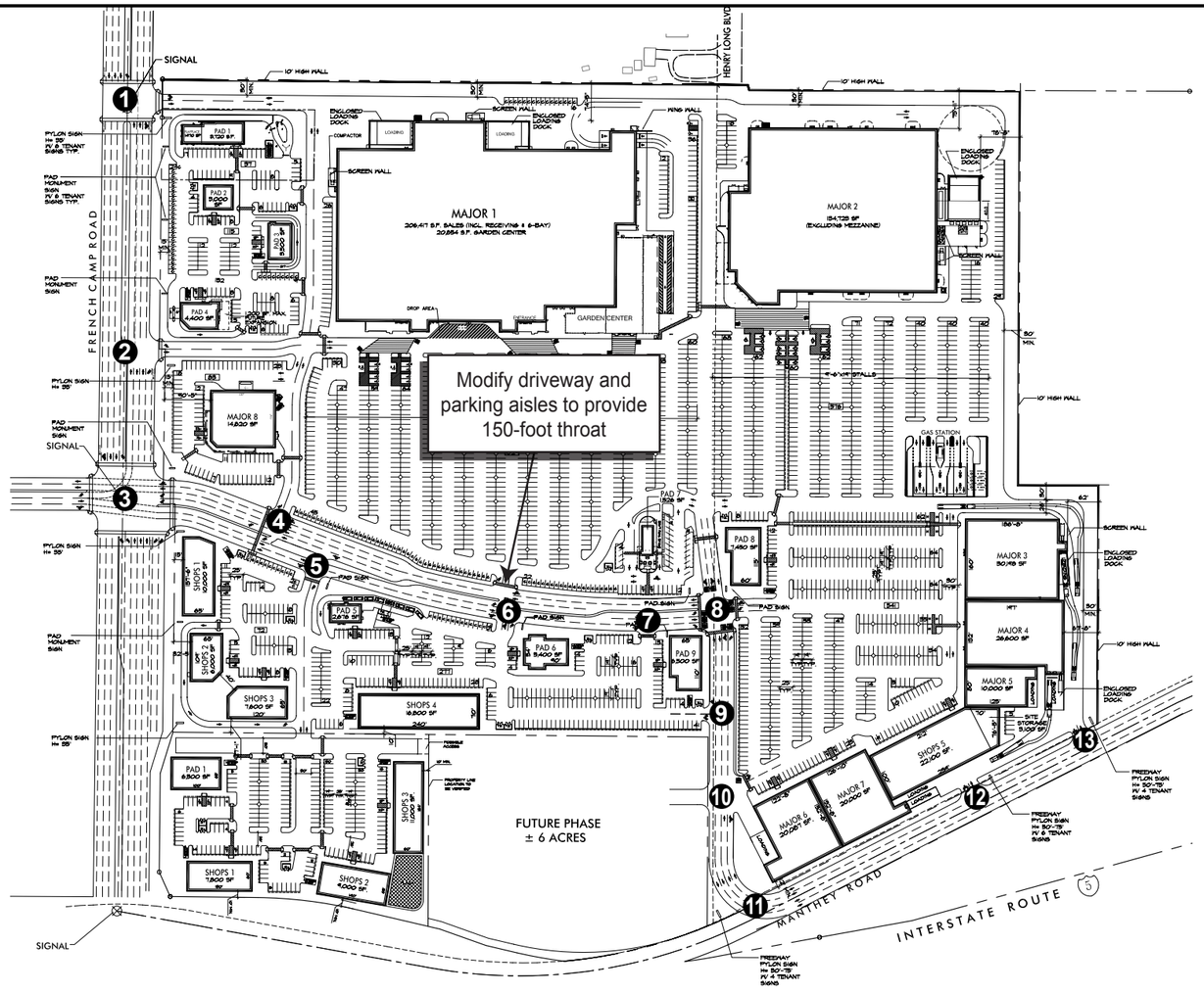
Recommendations for project site access and on-site circulation, including recommended lane configurations and turn pocket storage lengths for intersection internal and adjacent to the site, are summarized on Figure E-6. Each recommendation is discussed below.





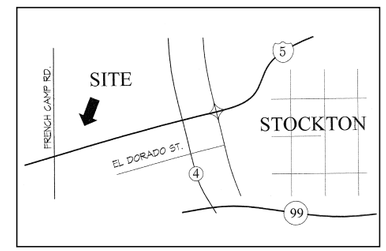






LEGEND

- = Traffic Signal
- = Stop Sign
- XX' = Recommended Storage Length
- = Differs from configuration shown on plan



GENERAL SITE RECOMMENDATIONS:

1) Identify Bicycle Parking Locations

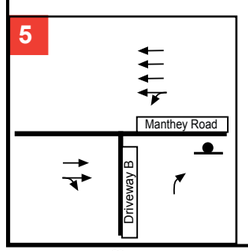
2) Define Pedestrian Paths Throughout Site

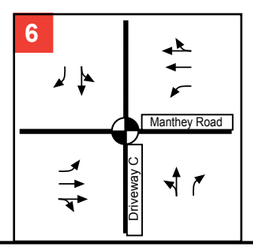
3) Provide Code Required Parking

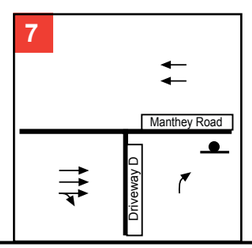
4) Designate Park and Ride Parking Facilities

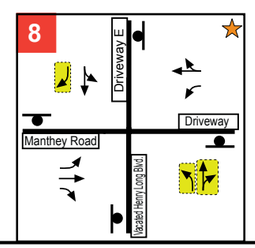
5) Identify Truck Routes Through Facility

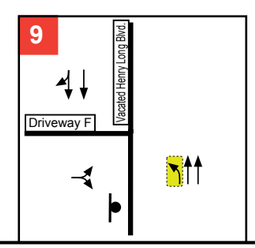
★ Install all necessary conduit to signalize intersection. Install signal when warranted by actual conditions.

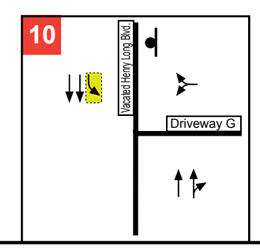


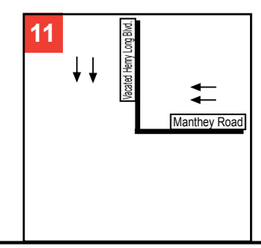


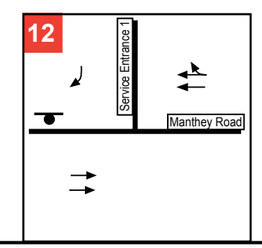


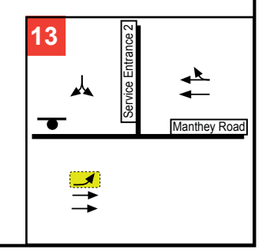












Weston Ranch Towne Center EIR

FEHR & PEERS
TRANSPORTATION CONSULTANTS

CONCEPTUAL SITE PLAN – CONSULTANT RECOMMENDATIONS FOR 2035 CONDITIONS

September 2006
Graphics\September 2006\E-6

FIGURE E-6

Vehicle Access

The project would have 13 vehicle access points from French Camp Road, realigned Manthey Road, and the vacated Henry Long Boulevard, as depicted on Figure E-6:

1. Signalized intersection at French Camp Road/Secondary Driveway
2. Unsignalized right-in/right-out driveway on French Camp Road west of Manthey Road
3. Signalized intersection at realigned Manthey Road/French Camp Road
4. Unsignalized Manthey Road/Driveway A
5. Unsignalized Manthey Road/Driveway B
6. Signalized Manthey Road/Driveway C
7. Unsignalized Manthey Road/Driveway D (right-in/right-out only)
8. Signalized Manthey Road/Vacated Henry Long Boulevard (west intersection)
9. Unsignalized Driveway F/Vacated Henry Long Boulevard
10. Unsignalized Driveway G/Vacated Henry Long Boulevard
11. Unsignalized Manthey Road/Vacated Henry Long Boulevard (east intersection)
12. Unsignalized Manthey Road/Service Entrance 1
13. Unsignalized Manthey Road/Service Entrance 2

PM peak hour operations of the main access locations (intersections 1 through 10 above) were analyzed based on the projected traffic volumes and the recommended lane configurations. An AM peak hour analysis was not performed because AM peak hour trip generation for this proposed retail development is relatively low in comparison to the PM peak hour trip generation (at approximately 31 percent of PM peak hour trip generation). Traffic volumes at driveways where detailed analysis was not performed are expected to be low, due to the proposed location (serving delivery areas only). Results of this analysis are presented in Table E-7. Recommendations for each location are discussed below and shown on Figure E-6.

1. **French Camp Road/Secondary Entrance –** The recommended lane configuration and turn pocket storage lengths for this intersection are shown on Figure E-6. Interconnecting and coordinating the traffic signal at this location to the French Camp Road/Realigned Manthey Road intersection is recommended. Although this intersection is located away from the main circulation areas of the site, congestion at the Manthey Road/French Camp Road intersection will make this a heavily used access location.

2. **Right-in/right-out driveway on French Camp Road west of Manthey Road** – This driveway would serve a substantial amount of project traffic because it provides direct access to several uses including the proposed Wal-Mart building. The project applicant proposes to provide a right-turn lane on French Camp Road for vehicles using this driveway.

3. **French Camp Road/Realigned Manthey Road** – The ultimate lane configuration and turn pocket storage lengths for this intersection are shown on Figure E-6. Interconnecting and coordinating the traffic signal at this location to the French Camp Road/Secondary Entrance intersection is recommended. The proposed design would allow for a southbound through lane to be converted to a left-turn lane, resulting in three left-turn lanes, and a through-right shared lane should future traffic volumes warrant a modified circulation scheme.

TABLE E-7
PM PEAK HOUR SITE ACCESS OPERATIONS

	Intersection	With Recommended Configuration and Traffic Control		
		Traffic Control	Delay	LOS
1.	French Camp Road/ Secondary Entrance	Signal	17	B
2.	French Camp Road/Right-in/right-out driveway	SSSC	1 (13)	A (B)
3.	French Camp Road/ Realigned Manthey Road	Signal	39	D
4.	Manthey Road/Driveway A	SSSC	1 (13)	A (B)
5.	Manthey Road/ Driveway B	SSSC	1 (16)	A (C)
6.	Manthey Road/Driveway C (main Wal-Mart entry)	Signal	37	D
7.	Manthey Road/Driveway D	SSSC	1 (13)	A (B)
8.	Manthey Road/Vacated Henry Long Boulevard (west intersection)	Signal	22	C
9.	Driveway F/Vacated Henry Long Boulevard	SSSC	1 (16)	A (C)
10.	Driveway G/Vacated Henry Long Boulevard	SSSC	1 (13)	A (B)

Note: Delay for intersection average (worst movement) at SSSC intersections.
Source: Fehr & Peers, 2006.

4. **Realigned Manthey Road/Driveway A –** This driveway is in close proximity (less than 300 feet) of the signalized French Camp Road/Realigned Manthey Road intersection. A northbound left-turn lane to provide access to the site is proposed. No left-turns from this driveway to Manthey Road would be permitted. A median would be constructed on Manthey Road to prevent outbound left-turn movements.

5. **Realigned Manthey Road/Driveway B** – This driveway is located approximately 400 feet from the signalized French Camp Road/Realigned Manthey Road intersection and would provide access to the eastern portion of site, currently proposed to contain approximately 90,000 square feet of retail uses. As currently proposed, this driveway would provide right-in/right-out access, in addition to left-turns in. No left-turns out would be permitted. A median would be constructed on Manthey Road to prevent outbound left-turn movements. Left-turns out of this area would be provided at Driveway C, which is proposed to be signalized, in addition to a driveway on the vacated Henry Long Boulevard.

6. **Realigned Manthey Road/Driveway C –** This driveway would be the primary driveway to the proposed Wal-Mart and would also provide access to the Sam's Club. As such, it is anticipated that vehicle turning movements would be substantial at this location. The peak hour volume warrant is satisfied during the PM peak hour at this location. A traffic signal is proposed for installation at this intersection. This signal would be located approximately 800 feet from the signalized French Camp Road/Manthey Road intersection. This signal should be interconnected and coordinated with the traffic signal at Manthey Road/Vacated Henry Long Boulevard. In addition to traffic signal installation, the driveway and adjacent parking area

should be reconfigured to provide a through depth of at least 150 feet to accommodate projected vehicle queues at the signalized intersection.

7. **Driveway D/Manthey Road Entrance** – This driveway is proposed to be right-in/ right-out only. Although this driveway is in close proximity to Driveway C and the intersection Manthey Road/Vacated Henry Long Boulevard (west intersection), volumes through this intersection are projected to be low and it is projected to operate acceptably with minimal queuing.

8. **Realigned Manthey Road/Vacated Henry Long Boulevard (west intersection) –** In the 2035 condition, this driveway is projected to operate at LOS F with all-way stop control, primarily due to the through traffic on Manthey Road making the northbound right-turn and westbound left-turn movements. The peak hour volume warrant is satisfied during the PM peak hour at this location with projected volumes.

   It is recommended that all the necessary underground components of a traffic signal shall be installed at this intersection during project construction so that a traffic signal can be installed when actual conditions warrant. This signal should be interconnected and coordinated with the traffic signal at Driveway C to ensure that traffic flows are maintained on Manthey Road.

9. **Driveway F/Vacated Henry Long Boulevard** – It is recommended that the westbound approach be modified to provide a left-turn pocket. Two westbound and two eastbound travel lanes should be provided on vacated Henry Long Boulevard.

10. **Driveway G/Vacated Henry Long Boulevard** – It is recommended that the eastbound approach be modified to provide a left-turn pocket. Two westbound and two eastbound travel lanes should be provided on vacated Henry Long Boulevard.

11. **Manthey Road/Vacated Henry Long Boulevard (east intersection) –** With development of the I-5/French Camp Road interchange project, Manthey Road would be rerouted through the project site and would continue along a portion of the vacated Henry Long Boulevard. The resulting intersection would operate with southbound right-turns and eastbound left-turns only, with no conflicting movements.

12. **Manthey Road/Service Entrance 1** – This driveway should be restricted to right-in/right-out operation only and should be side-street stop controlled.

13. **Manthey Road/Project Driveway** – A northbound left-turn pocket should be provided into this driveway in addition to side-street stop control. Additionally, it should be designed to accommodate the turning movements of large delivery vehicles.

Vehicle Queuing – 2035 Conditions

A detailed queuing analysis was also performed for the French Camp Road corridor between the proposed Sperry Road extension and Manthey Road, including the I-5 interchange under 2035 conditions. Table 4.7-22 summarizes the results based on CORSIM analysis.

Analysis results show that the 95th percentile vehicle queues at the French Camp Road/I-5 interchange would exceed the storage length at some locations, including westbound French Camp Road through the interchange and the northbound and southbound off-ramps. Mitigation to address queue spillback is presented in Section 4.7.4.

TABLE 4.7-22
2035 PEAK HOUR QUEUING ANALYSIS

Intersection	Movement	Storage Length[1]	Without Project		With Project	
			AM	PM	AM	PM
French Camp Road/ Realigned Manthey Road	Westbound Left	400	200	350	225	350
	Westbound Through	800	225	475	250	550
	Westbound Right	400	50	50	75	200
	Southbound Left	500	250	150	325	450
French Camp Road/ I-5 Southbound Ramps	Southbound Left	500	350	425	350	***525***
	Southbound Right	500	250	400	300	***575***
	Eastbound Through	800	350	400	450	725
	Eastbound Right	600	350	75	450	250
	Westbound Through	900	575	675	700	***1,100***
French Camp Road/ I-5 Northbound Ramps	Northbound Left	300	**525**	325	***600***	***575***
	Eastbound Through	900	700	400	750	450
	Westbound Through	600	600	475	600	***625***

Notes:

95th percentile vehicle queues calculated using CORSIM.
Bold = deficient operations; Bold/italics = significant impact

Source: Fehr & Peers, 2006

Pedestrian, Bicycle, and Transit Access

The project would include improvements to Manthey Road and French Camp Road, including roadway paving and construction of sidewalks, curbs, and gutters along the southern and eastern property lines. Based on the *City of Stockton Existing and Future Bikeway Plan* dated April 26, 2002 (<www.stocktongov.com/parks/pdf/bikepath.pdf>), a Class I bicycle path would be constructed on French Camp Road along the project frontage and would be located within an 8-foot meandering sidewalk/path on the north and south sides of French Camp Road. Manthey Road is designated as a Class III bicycle route. These improvements would enhance bicycle and pedestrian access to the site and throughout the area. Although sidewalks would be provided on French Camp Road and Manthey Road along the project frontage with project implementation, pedestrian paths connecting the project site to the adjacent developments are not shown on the conceptual project site plan, dated 2005.

The San Joaquin Regional Transit District has requested that the project applicant provide appropriate transit features, including bus pull-outs on both Manthey Road and French Camp Road, with development of the project. Provision of bus pull-outs with appropriate transit amenities, such as bus shelters, would improve transit accommodation in the area. The location of the proposed bus-pullouts on French Camp Road and Manthey Road should be identified on the project site plan and pedestrian connections from the site to bus facilities should also be provided.

Emergency Access

Factors such as number of access points, roadway widths, and proximity to fire stations determine whether a project provides sufficient emergency access. The project provides multiple points of entry from two major roadways. If one of these roadways or entrances is blocked or obstructed, an emergency vehicle could use the other roadway or an alternate entrance to access the site. The internal project roadways have minimum lane widths of 25 feet with adjacent parking provided,

which is adequate for emergency vehicle access. A fire station is located on Manthey Road, south of Carolyn Weston Boulevard, less than one mile from the project site, which would allow for timely emergency response to the project site. The applicant should consult with the City of Stockton fire department to ensure that the site plan provides adequate emergency access.

Other On-Site Circulation Considerations

On-site circulation was reviewed with respect to the following: drive aisles, dead-end drive aisles, vehicle/pedestrian conflicts, delivery vehicles, and parking stall dimensions. Due to the limited detail of the site plan provided, only a general discussion of these elements is included. The City of Stockton *Municipal Code* is the basis for this analysis.

Drive Aisles

The surface parking area provides major and minor circulation roadways. It appears that all aisles are at least 25 feet wide (the minimum width generally allowed for two-way travel with perpendicular parking), a sufficient width to accommodate vehicle circulation. Although drive aisles provide sufficient width, some aisles are offset with an opposing aisle, which creates potential sight distance constraints. These off-set locations should be eliminated, wherever possible.

Dead-End Drive Aisles

Dead-end drive aisles are parking aisles that are obstructed at one end, thereby increasing difficulty navigating through the site. No dead-end drive aisles are shown on the project site plan.

Vehicle/Pedestrian Conflicts

Sufficient detail is not provided on the site plan to ascertain the specific location of potential vehicle/pedestrian conflict points. A detailed review of the final plan is recommended to ensure that pedestrian crossings are provided and pedestrian paths are identified throughout the site.

Delivery Vehicles

Given the nature of the project, deliveries in large semi-trucks would be expected on a regular basis in addition to smaller delivery vehicles. Any large semi-truck deliveries should be scheduled for off-peak periods to minimize conflicts between delivery trucks and passenger vehicles. Additionally, the project driveways should be designed to accommodate the turning radii of large delivery vehicles.

Truck counts at an existing Wal-Mart store show that the Wal-Mart portion of the project could expect to have up to 40 deliveries per day, with approximately 50 percent heavy duty trucks, 40 percent medium duty trucks, and 10 percent light duty trucks. Although Wal-Mart retailers tend to have higher delivery truck volumes than other retailers, the other portions of the project were anticipated to have truck deliveries at the same ratio of deliveries to square footage as the Wal-Mart store for the purposes of this analysis, to present a worst-case estimate of truck traffic. This equates to approximately 60 non Wal-Mart deliveries per day, for a total of 100 delivery truck trips to the site. This level of truck trip generation was accounted for in the off-site analysis. Truck routes should be identified through the site and internal intersection and drive aisles should be designed to accommodate the turning radii of large delivery vehicles.

Parking Stall Dimensions

The City of Stockton requires that 90-degree-angle parking stalls be at least 19 feet long and 9 feet wide with 25-foot-wide drive aisles. Parking stalls throughout the site appear to meet these design criteria. A maximum of 25 percent of the site's parking can be designated "compact" spaces, with dimensions of 9 feet wide and 15 feet long.

Impacts and Mitigation Measures

Future 2035 with Project Conditions

The following describes the impacts and mitigation measures for the proposed project under the Future 2035 With Project condition.

Impact E-1. The proposed project would contribute to the need to construct planned roadway improvements under Future 2035 conditions. This impact is considered significant.

The proposed project would generate 17,600 new daily trips, 540 new AM peak hour trips, and 1,721 new PM peak hour trips, which would accelerate the need for construction of planned improvements along I-5, French Camp Road, El Dorado Street, and Sperry Road.

Mitigation Measures

Mitigation Measure E-1. The project applicant shall contribute its fair share towards the implementation of the following improvements:

- Widening of I-5 to ten lanes from Roth Road to French Camp Road and from French Camp Road to Charter Way (2 percent)
- Widening of French Camp Road to eight lanes between Manthey Road and Sperry Road (21 percent)
- Widening of French Camp Road to six lanes between Wolfe Road and Manthey Road (21 percent)
- Construction of an L-9 interchange including loop on-ramps in the southeast and northwest quadrants. In conjunction with this improvement, Manthey Road would be realigned to the west and Val Dervin Parkway to the east across from the Sperry Road/French Camp Road intersection (20 percent)
- Widening of Manthey Road to four lanes from Carolyn Weston Boulevard to south of Mathews Road (26 percent)
- Widening of El Dorado Street to six lanes north of proposed Sperry Road extension and four lanes south of the proposed Sperry Road extension (1 percent)
- Widening of Sperry Road/Arch-Airport Road between French Camp and Airport Way to eight lanes (5 percent)

- Widening of Mathews Road to six lanes between Wolfe Road and Manthey Road, and eight lanes between Manthey Road and I-5 (2 percent)

- Construction of a diamond interchange with a seven lane cross section (including turn lanes) under the freeway, and northbound and southbound free right-turn lane a the Mathews Road/I-5 interchange (1 percent)

This measure may be satisfied by direct contribution, payment of adopted impact fee programs to the extent the improvements are included in the programs, or other means deemed appropriate by the City.

Impact Significance after Mitigation: With implementation of this mitigation measure, this impact would be reduced to a less-than-significant level.

Impact E-2. The addition of project traffic would result in vehicle queue spillback at the French Camp Road/I-5 interchange. This impact is considered significant.

The addition of project traffic would worsen the 95th percentile vehicle queues through the interchange area, resulting in vehicle queues exceeding the proposed vehicle storage including westbound French Camp Road through the interchange and the northbound and southbound off-ramps.

Mitigation Measures

Mitigation Measure E-2. Monitoring of the traffic signals to ensure arterial progression through the interchange area could reduce the amount of queue spillback in the area. It should be noted that all intersections in the French Camp Road/I-5 interchange area are projected to operate at acceptable service levels during the morning and evening peak hours in 2035.

Impact Significance after Mitigation: Although monitoring of the traffic signals to ensure minimize vehicle queues through the I-5/French Camp Road interchange area may minimize queue spillover, implementation of this measure can not be ensured. Therefore, the impact would remain significant and unavoidable.

Onsite Impacts and Mitigation Measures

The following discusses onsite impacts and mitigation measures.

Impact E-3. The proposed project site access would result in safety and operational deficiencies. This impact is considered potentially significant.

PM peak hour analysis of the project access locations shows that with the recommended lane configurations, all access locations would operate at acceptable service levels. In addition, emergency access and onsite circulation could also be improved.

Mitigation Measures

Mitigation Measure E-3. The project applicant shall modify the site plan as shown on Figure E-6 and described below.

1. **French Camp Road/Secondary Entrance –** The recommended lane configuration and turn pocket storage lengths for this intersection are shown on Figure E-6. Interconnecting and coordinating the traffic signal at this location to the French Camp Road/Realigned Manthey Road intersection is recommended. Although this intersection is located away from the main circulation areas of the site, congestion at the Manthey Road/French Camp Road intersection will make this a heavily used access location.

2. **Right-in/right-out driveway on French Camp Road west of Manthey Road** – This driveway would serve a substantial amount of project traffic because it provides direct access to several uses including the proposed Wal-Mart building. The project applicant proposes to provide a right-turn lane on French Camp Road for vehicles using this driveway.

3. **French Camp Road/Realigned Manthey Road** – The ultimate lane configuration and turn pocket storage lengths for this intersection are shown on Figure E-6. Interconnecting and coordinating the traffic signal at this location to the French Camp Road/Secondary Entrance intersection is recommended. The proposed design would allow for a southbound through lane to be converted to a left-turn lane, resulting in three left-turn lanes, and a through-right shared lane should future traffic volumes warrant a modified circulation scheme.

4. **Realigned Manthey Road/Driveway A –** This driveway is in close proximity (less than 300 feet) of the signalized French Camp Road/Realigned Manthey Road intersection. A northbound left-turn lane to provide access to the site is proposed. No left-turns from this driveway to Manthey Road would be permitted. A median would be constructed on Manthey Road to prevent outbound left-turn movements.

5. **Realigned Manthey Road/Driveway B** – This driveway is located approximately 400 feet from the signalized French Camp Road/Realigned Manthey Road intersection and would provide access to the eastern portion of site, currently proposed to contain approximately 90,000 square feet of retail uses. As currently proposed, this driveway would provide right-in/right-out access, in addition to left-turns in. No left-turns out would be permitted. A median would be constructed on Manthey Road to prevent outbound left-turn movements. Left-turns out of this area would be provided at Driveway C, which is proposed to be signalized, in addition to a driveway on the vacated Henry Long Boulevard.

6. **Realigned Manthey Road/Driveway C –** This driveway would be the primary driveway to the proposed Wal-Mart and would also provide access to the Sam's Club. As such, it is anticipated that vehicle turning movements would be substantial at this location. The peak hour volume warrant is satisfied during the PM peak hour at this location. A traffic signal is proposed for installation at this intersection. This signal would be located approximately 800 feet from the signalized French Camp Road/Manthey Road intersection. In addition to traffic signal installation, the driveway and adjacent parking area should be reconfigured to provide a through depth of at least 150 feet to accommodate projected vehicle queues at the signalized intersection.

7. **Driveway D/Manthey Road Entrance** – This driveway is proposed to be right-in/right-out only.

8. **Realigned Manthey Road/Vacated Henry Long Boulevard (west intersection) –** In the 2035 condition, this driveway is projected to operate at LOS F with all-way stop control, primarily due to the through traffic on Manthey Road making the northbound right-turn and westbound left-turn movements. The peak hour volume warrant is satisfied during the PM peak hour at this location with projected volumes.

   It is recommended that all the necessary underground components of a traffic signal shall be installed at this intersection during project construction so that a traffic signal can be installed when actual conditions warrant. This signal should be interconnected and coordinated with the traffic signal at Driveway C.

9. **Driveway F/Vacated Henry Long Boulevard** – It is recommended that the westbound approach be modified to provide a left-turn pocket. Two westbound and two eastbound travel lanes should be provided on vacated Henry Long Boulevard.

10. **Driveway G/Vacated Henry Long Boulevard** – It is recommended that the eastbound approach be modified to provide a left-turn pocket. Two westbound and two eastbound travel lanes should be provided on vacated Henry Long Boulevard.

11. **Manthey Road/Vacated Henry Long Boulevard (east intersection) –** With development of the I-5/French Camp Road interchange project, Manthey Road would be rerouted through the project site and would continue along a portion of the vacated Henry Long Boulevard. The resulting intersection would operate with southbound right-turns and eastbound left-turns only, with no conflicting movements.

12. **Manthey Road/Service Entrance 1** – This driveway should be restricted to right-in/right-out operation only and should be side-street stop controlled.

13. **Manthey Road/Project Driveway** – A northbound left-turn pocket should be provided into this driveway in addition to side-street stop control. Additionally, it should be designed to accommodate the turning movements of large delivery vehicles.

Impact Significance after Mitigation: Implementation of this measure would reduce the impact to a less-than-significant level.

Appendix F
Air Quality Analysis

ESA

APPENDIX F
Air Quality Analysis

Diesel Particulate Matter Health Risk Assessment

Introduction

The project proposes development of the project site with large retail stores (including a Wal-Mart and Sam's Club); in-line shops (located contiguously between large retail stores); retail pad stores (possibly including clothing, pet supplies, and other domestic supply stores), pet supplies, and an electronic store); restaurants; fuel centers; and parking within the Weston Ranch Towne Center. The proposed project is located in Stockton, north of French Camp Road, west of I-5 at the northwest quadrant of the I-5/French Camp Road interchange, and east of McDougald Boulevard and the existing Weston Ranch residential subdivision. The project site consists of approximately 60 acres.

This document was prepared to identify potential air quality impacts that may result from implementation of the Weston Ranch Towne Center project. The loading docks are the primary location where diesel trucks concentrate. At the loading docks, diesel trucks sometimes idle for long periods of time (although this wastes fuel, studies have shown trucks idle to maintain temperature in the driver area) and food trucks also have diesel engines that run constantly to power the transportable refrigeration units (TRUs) that cool the trailer and keep foods from spoiling. This supplemental air quality analysis was conducted to assess the diesel particulate matter (DPM) impacts on nearby sensitive receptors.

Emissions of diesel particulates would occur from the following project activities:

- Truck traffic on local streets and arterials in transit to or from the loading dock,
- Truck idling and movement on-site at the loading dock, and
- Operation of transportation refrigeration units (TRU) at the loading dock.

Given source emissions, meteorology and site geometry, dispersion models can predict pollutant concentrations at receptors as a result of vehicular traffic along nearby roadways and at the proposed project's loading/unloading area. The contribution of project trucks to DPM was estimated using the U.S. Environmental Protection Agency's (EPA) dispersion model Industrial Source Complex-3 (ISC3). Vehicular emissions were computed using the California Air Resource Board's (CARB) emission factor model, EMFAC2002. The health risk increments from the proposed project were estimated based on the toxic potency factor for DPM and the dispersion modeling results. This report presents the analysis methodology, assumptions, and results.

Regulatory Background

In August of 1998, the CARB identified particulate emissions from diesel-fueled engines (DPM) as toxic air contaminants (TACs). CARB developed the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles* and the *Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines*. CARB approved these documents on September 28, 2000. The documents represent proposals to reduce diesel particulate emissions, with the goal being to reduce emissions and the associated health risk by 75 percent in 2010 and by 85 percent in 2020. The program aims to require the use of state-of-the-art catalyzed diesel particulate filters and ultra-low sulfur diesel fuel.

In December 2000, the EPA promulgated regulations requiring that the sulfur content in motor vehicle diesel fuel be reduced to less than 15 ppm by June 1, 2006. Control of DPM emissions focuses on two strategies, reducing the amount of sulfur in diesel fuel and developing filters for operating diesel engines to reduce the amount of particulate matter that is emitted. The EPA has also finalized a comprehensive national emissions control program, the 2007 Highway Diesel (HD 2007) program, which regulates highway heavy-duty vehicles and diesel fuel as a single system. Under the HD 2007 program, the EPA established new emission standards that would significantly reduce PM and NO_x from highway heavy-duty vehicles.

In 2001, CARB assessed the state-wide health risks from exposure to diesel exhaust and to other toxic air contaminants. It is difficult to distinguish the health risks of diesel emissions from those of other air toxics, since diesel exhaust contains about 40 different TACs. The CARB study detected diesel exhaust by using ambient air carbon soot measurements as a surrogate for diesel emissions. The study reported that in 2000, the state-wide cancer risk from exposure to diesel exhaust was about 540 cases per million population as compared to a total risk for exposure to all ambient air toxics of 760 per million. This estimate, which accounts for about 70 percent of the total risk from TACs, included both urban and rural areas in the state. It can be considered as an average worst-case for the state, since it assumes constant exposure to outdoor concentrations of diesel exhaust and does not account for expected lower concentrations indoors, where most of time is spent.

Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed gases (e.g., chlorides or ammonium) that may be injurious to health. Particulates also can damage materials and reduce visibility. Dust comprised of large particles (diameter greater than 10 microns) settles out rapidly and is easily filtered by human breathing passages. This dust is of concern more as a soiling nuisance rather than a health hazard. The remaining fraction, PM10 and PM2.5, are a health concern particularly at levels above the federal and state ambient air quality standards. PM2.5 (including diesel exhaust particles) is thought to have greater effects on health. Because these particles are so small, they are able to penetrate to the deepest parts of the lungs. Scientific studies have suggested links between fine particulate matter and numerous health problems including asthma, bronchitis, acute and chronic respiratory symptoms such as shortness of breath and painful breathing. Children are more susceptible to the health risks of PM2.5 because their immune and respiratory systems are still developing.

Existing Air Quality

CARB and the San Joaquin Valley Air Quality Management District (SJVAQMD) operate regional monitoring networks that measure the ambient concentrations of criteria pollutants. Existing air quality in the project area can be inferred from ambient air quality measurements at monitoring stations.

The ambient monitoring station for PM2.5 data located closest to the project site is in Stockton on Hazelton Street, approximately six miles to the north of the project site. Since the climate, wind characteristics, and types/magnitude of air emission sources of the area surrounding the project site and the monitoring station are similar, these data are expected to be representative of the air quality conditions at the project site. Table F-1 presents a four-year summary of PM2.5 monitoring data collected from the Hazelton Street station, compared with Ambient Air Quality Standards. It should be noted that DPM consists of only a portion of the reported PM2.5 data, and the specific fraction of the total PM2.5 that is actually DPM has not been calculated. Based on a USEPA study, the average contribution of DPM to total PM2.5 mass is reported to range from 9 percent in nonurban areas to 36 percent in urban areas in California. For comparison purposes, in California, ambient DPM concentrations have been reported to range between 1.8 and 3.6 $\mu g/m^3$for urban areas and 0.2 through 2.6 $\mu g/m^3$ for nonurban areas. Based on the data in Table F-1, the annual average DPM concentration within the project area is approximately 5 $\mu g/m^3$.

TABLE F-1
AIR QUALITY DATA SUMMARY (2000–2003) FOR THE PROJECT AREA

		Monitoring Data by Year			
Particulate Matter (PM2.5)	**Standard**	**2000**	**2001**	**2002**	**2003**
Highest 24 Hour Average ($\mu g/m^3$)/ Highest 24-Hour Average ($\mu g/m^3$)	65	**78**	**76**	64	45
Days over State Standard Exceedances/Samples[e]		1	2	0	0
Annual Average ($\mu g/m^3$) Annual Average ($\mu g/m^3$)	12	**15.5**	**13.9**	**16.7**	**13.6**

NOTES: Values in **bold** are in excess of applicable standard.
$\mu g/m^3$ = micrograms per cubic meter.
NA = Not available.
SOURCE: California Air Resources Board Air Quality Data Summaries, January 2005.

Actual ambient monitoring data of PM2.5 or DPM at the residential receptors was not collected for several reasons. First, short sample periods (less than one year) do not provide a representative basis from which to estimate annual average concentrations (when accounting for variations in annual operations of the project site and other nearby sources, as well as meteorological conditions and other factors affecting dispersion and dilution of pollutants). Secondly, accurate measurements of DPM are difficult to acquire; and measurements of PM2.5 can overestimate the contribution of DPM. DPM usually consists of a carbon core, surrounded by approximately 40

different gas phase or semi-volatile compounds, and can not be measured directly; its concentration can only be estimated through the use of a surrogate measurement (often as particulates elemental carbon). Thirdly, ambient monitoring results would be difficult to apportion the contribution from the existing project site and the contribution from the many other sources in the area, and thus, determine the project site contribution to any incremental cancer risk. Fourth, ambient monitoring does not account for the substantially improving emission efficiency of on-road trucks and other emission sources in future years, as set forth in current regulations. Thus, this analysis made use of a dispersion model and an emission estimation program to predict the annual DPM concentrations that would be attributable to the project site while accounting for project operation variations, meteorology, improving diesel engine technology, and the chemical properties of DPM.

Truck Delivery Characteristics

In order to estimate truck traffic volumes and distribution patterns in the project vicinity, a manual truck classification count was conducted at a similar existing Wal-Mart Supercenter (store #1554 at 3223 East Hammer Lane in Stockton) on Thursday, March 3, 2005, during a 24-hour period from midnight to midnight. The purpose of this count was to characterize the number and type of trucks delivering specifically to Wal-Mart, to observe idling characteristics and TRU operations, and the existing arrival and departure distribution patterns of these trucks. This data is summarized below and depicted in Table F-2.

The existing Wal-Mart received 39 daily deliveries with a majority of the deliveries during two separate periods: between 3 a.m. and 6 a.m. and between 10 a.m. and 1 p.m. These delivery trucks ranged from 18-wheeled tractor trailers to 4-wheeled delivery trucks. Delivery hours were assumed to be unrestricted. Trucks were categorized using the Federal Highway Administration (FHWA) vehicle classification system for trucks. Approximately 50 percent of the deliveries were heavy-duty trucks, 40 percent were medium-duty trucks, and 10 percent were light-duty trucks. Six of the 39 trucks included TRU with an average operation time during the observations of 145 minutes. It should be noted that a single delivery truck was estimated to idle the truck engine for 225 minutes and also operate its TRU for 559 minutes (perhaps during a scheduled sleep as the period began around midnight). This single observation of the truck with 225 minutes of idle was considerably different than the other truck operations. The average conditions for the remaining trucks were determined to be 4.8 minutes of idle and 56 minutes of TRU operation. Truck volumes for the other retail stores; Sam's Club, Ross/Linens (also known as major retail 3 and 4), and pet supplies and electronics stores (also known as major retail 5, 6, and 7 and shop 5) were developed based on the ratio of store size to that of the Wal-Mart. The Ross and electronic store were assumed not to be visited by TRU equipment trucks. Future truck volumes were assumed to remain constant.

TABLE F-2
WALMART SUPERCENTER LOADING DOCK TRUCK AND TRU ACTIVITY

Truck Code[1]	# Wheels	Minutes in Loading Area			TRU Minutes	Total Truck + TRU Minutes
		Idle Minutes	Parked, Non-Idle Minutes	Total		
2a	18	20	28	53	0	53
3a	18	17	12	31	0	31
6a	18	225	363	589	589	1178
6b	18	32	387	422	0	422
7a	18	0	46	48	0	48
7b	18	2	29	33	0	33
7c	18	0	142	142	142	284
7d	18	0	15	17	0	17
7e	18	0	63	66	66	132
7f	10	0	10	10	0	10
8a	18	1	43	46	0	46
8b	6	0	210	211	0	211
8c	6	0	223	224	0	224
8d	6	0	10	10	0	10
8e	4	0	34	34	0	34
8f	6	0	67	67	0	67
8g	6	0	75	75	0	75
8h	6	0	95	95	0	95
8i	18	16	0	18	0	18
8j	4	0	34	34	0	34
8k	6	0	55	55	0	55
8l	6	26	0	27	27	54
8m	6	0	56	56	0	56
8n	6	0	43	43	0	43
8o	6	0	12	12	0	12
8p	6	1	29	30	30	60
8q	6	0	17	17	0	17
8r	4	0	44	44	0	44
8s	18	4	131	136	0	136
8t	10	5	187	192	0	192
9a	6	0	6	6	0	6
9b	10	0	14	14	0	14
9c	10	13	0	13	13	26
9d	4	0	1	1	0	1
9e	18	10	45	55	0	55
9f	18	7	34	41	0	41
10a	18	0	13	13	0	13
10b/7g	6	8	40	50	0	50
*1	18	21	0	24	0	24

[1] Truck code represents the number of truck at a particular loading station. An example would be 9b, which would be the 2nd truck at loading dock 9.

SOURCE: ESA, 2005

Emission Estimates

Vehicular emissions were computed using the CARB's emission factor model, EMFAC2002, to estimate past, present, and future on-road emissions of PM and other pollutants. Ambient conditions assumed a temperature of 85ºF (although PM emissions are not effected by ambient temperature), a humidity of 30 percent, and a vehicle speed of 10 mph along access points and idling at the loading dock. Idling trucks at the loading bays may include operation of TRU. During the truck survey, vehicles were assigned a classification based on the FHWA designations. These classifications were then assigned a class to match the EMFAC2002 model.

Table F-2 displays the emissions factors for the project. Additionally, operation of TRU results in DPM emissions. Based on current emission factors of 0.76 grams per hp-hr, a typical engine size of 50 hp and a load factor of 0.28, the DPM emission for TRU was estimated at 10.6 grams per hour. CARB has recently adopted regulations for TRU, which would reduce DPM emissions in future years. For engines less than 25 hp, the regulated DPM emissions beginning in 2008 would be limited to 0.3 grams per hp-hr. For engines greater than 25 hp, the regulated DPM emissions would be 0.22 grams per hp-hr (3.08 grams per hour) in 2008 and the regulated DPM emissions would be 0.02 grams per hp-hr (0.28 grams per hour) in 2012.

TABLE F-3
VEHICLE EMISSION FACTORS

Year	Vehicle Type	Running (Grams per Mile)	Idle (Grams per Hour)
2006	Light Duty Diesel Trucks	0.093	0.370
	Medium-Duty Diesel Trucks	0.460	1.82
	Heavy Duty Diesel Trucks	0.423	1.68
2011	Light Duty Diesel Trucks	0.0795	0.316
	Medium-Duty Diesel Trucks	0.381	1.51
	Heavy Duty Diesel Trucks	0.314	1.25
2016	Light Duty Diesel Trucks	0.0565	0.225
	Medium-Duty Diesel Trucks	0.267	1.06
	Heavy Duty Diesel Trucks	0.174	0.693
2026	Light Duty Diesel Trucks	0.0395	0.158
	Medium-Duty Diesel Trucks	0.195	0.773
	Heavy Duty Diesel Trucks	0.111	0.440
2036	Light Duty Diesel Trucks	0.0375	0.148
	Medium-Duty Diesel Trucks	0.184	0.730
	Heavy Duty Diesel Trucks	0.104	0.413

SOURCE: California Air Resources Board EMFAC2002

Dispersion Modeling Analysis

Modeled impacts were predicted to document the contribution of DPM at the nearby receptors from truck sources. DPM concentrations were modeled for the diesel vehicles estimated from the daily truck classification count; in addition to DPM associated with idling trucks at the loading bays; and operation of truck TRU at the loading bays. The modeled DPM concentrations do not account for other diesel vehicle sources outside this study area, or other potential stationary sources of DPM within or outside this study area.

Dispersion is the process by which atmospheric pollutants disseminate due to wind and vertical stability. The results of a dispersion analysis are used to assess pollutant concentrations at or near an emission source. The results of an analysis allow a direct comparison of predicted concentrations of pollutants to air quality standards and other criteria such as health risks based on modeled concentrations.

Refined dispersion modeling uses hourly averaged meteorological data, terrain elevation data, and emissions and source release data to compute downwind pollutant concentrations over averaging periods ranging from one hour to one year. The modeling methodology is consistent with procedures documented in the EPA *Guideline on Air Quality Models* and SJVUAPCD's *Guide for Assessing Air Quality Impacts*.

The ISC3 dispersion model (Version 02035) was used for the modeling analysis. ISC3 is the EPA preferred dispersion model for general industrial purposes. The ISC3 model is the appropriate model for this analysis based on the coverage of simple, intermediate, and complex terrain. It also predicts both short-term and long-term (annual) average concentrations. The model was executed using the regulatory default options (stack-tip downwash, buoyancy-induced dispersion, final plume rise), default wind speed profile categories, default potential temperature gradients, and no pollutant decay.

Meteorological Data

In general, the transport and concentration of pollutants from vehicular sources are influenced by three principal meteorological factors: wind direction, wind speed, and atmospheric stability, which accounts for the effects of dispersion or mixing in the atmosphere.

The rate at which emissions are dispersed in the atmosphere depends upon the intensity of the ambient turbulence, the velocity of the wind, the position relative to obstacles in the flow field, and any dilutions attributable to the source itself. The most important factor leading to plume spread in the atmosphere is the amount of ambient turbulence. In a stable atmosphere, the horizontal and vertical turbulence is very limited. The plume remains near its emission height and undergoes minimal mixing. This situation is common during the nighttime and early morning hours. If the layer below the plume height becomes neutral to unstable, the plume mixes rapidly to the surface. This is known as a fumigation condition and can cause high concentrations. This occurs for short duration during the early morning. As heating of the surface persists, a fully unstable mixing layer develops, and the plume loops up and down in response to large-scale convective eddies. A neutral stability atmosphere yields moderate amounts of turbulence and results in a cone-shaped plume. Finally, if an inversion is present below the emission height, a lofting condition exists and the plume is cut off from ground level impacts.

Stability class frequencies were calculated from the deviation of the horizontal wind direction (sigma theta). The Sigma Theta method was used to categorize stability class as a function of wind speed and time of day. Stability classes range from extremely unstable (A) to moderately stable (F). These classes are used in dispersion models to estimate how much a plume will spread over time and space. In general, the more stable the atmosphere is, the less potential for plume spread, creating higher plume concentrations.

Surface meteorological data and upper air meteorological (mixing height) data from Stockton and Sacramento, California, respectively, were used for the modeling analysis (<www.valleyair.org /busind/pto/Tox_Resources/toxics_resources.htm>). Meteorological data were obtained from SJVUAPCD and used for modeling impacts of the Port of Stockton operations. The windrose (Figure 2) shows winds predominantly from the west and northwest with 6.10 percent calm winds and an average wind speed of 3.85 m/s (<www.wrcc.dri.edu/cgi-bin/clilcd.pl?ca23237>). Secondly, the distribution of atmospheric stability includes approximately 32.8 percent of neutral stability ("D") and 20.4 percent of moderately stable ("F") conditions.

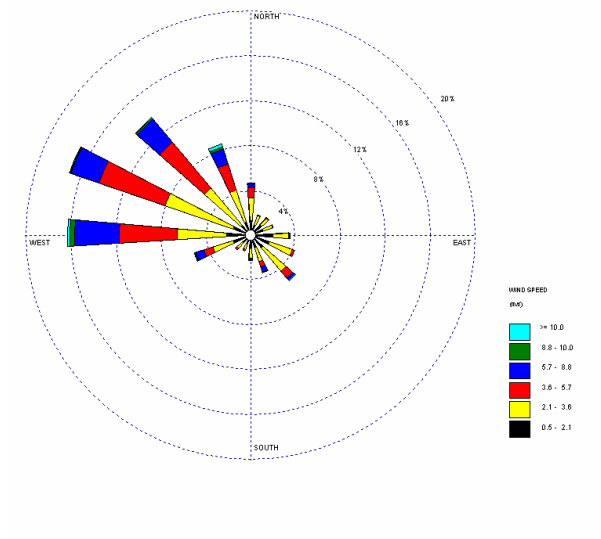


Figure 1
Windrose from Stockton, California

Diesel Exhaust Concentration Results

Modeled impacts were predicted to document the contribution of DPM at the nearby receptors from truck sources. DPM concentrations were modeled for the diesel vehicles estimated from the daily truck classification count; in addition to DPM associated with idling trucks at the Wal-Mart loading bays; and operation of truck TRU at the loading bays. The modeled DPM concentrations do not account for other diesel vehicle sources outside this study area, or other potential stationary sources of DPM within or outside this study area. Based on the modeling analysis, the predicted maximum unmitigated DPM concentrations as a result of this project would be 0.0409 $\mu g/m^3$ on an annual basis; resulting in a health risk of 12.3 cancers per million (above the significance threshold). The non-cancer health risks are well below the hazard index of 1.0 at all receptors. Based on the modeling analysis, the predicted maximum mitigated DPM concentrations as a result of this project would be 0.0242 $\mu g/m^3$ on an annual basis; resulting in a health risk of 7.3 cancers per million (below the significance threshold).

The analysis provides for a lifetime exposure of 70 years. However, demographics may show that the duration of a household staying in the area to be much shorter, which would lower the overall risk. Secondly, dispersion modeling and the emission factors which it is based upon tend to be conservative in their prediction of pollutant concentrations.

Health Risk

The SJVAQMD has a significance threshold for health risk exposure to diesel emissions of 10 cases of cancer per million populations for 70-year exposure. Accordingly, CEQA Guidelines indicate the primary concern from diesel engine exhaust emissions is a potential long-term health risk to sensitive receptors.

The DPM cancer risk is the probability of an individual developing cancer as a result of exposure to DPM. The cancer risks from DPM occur exclusively through the inhalation pathway. The cancer risk based on a one-year exposure can be estimated by multiplying: [the annual average DPM concentration in $\mu g/m^3$] x [the unit risk factor for DPM[1]] x [the lifetime exposure adjustment (LEA) for limited exposure over a one-year interval].

The inhalation unit risk factor for diesel particulate was established by CARB as 300 in one million per continuous exposure of 1 $\mu g/m^3$ of DPM over a 70-year period. In order to protect public health, and in accordance with the recommendations of the State of California Office of Environmental Health Hazard Assessment (OEHHA), a 70-year lifetime exposure is assumed for receptor locations (a generally conservative assumption). The LEA for most residential or sensitive receptors is 1.0.

The average overall risk of typical person in California should be understood. CARB conducted a study to estimate cancer risks from exposure to DPM in the State and to develop a risk reduction plan. The Study reported that the statewide average ambient air concentration of DPM was determined by using measured ambient air concentrations of surrogates to DPM in a receptor model to estimate exposure levels. For the year 2000, the statewide average cancer risk from exposure to diesel exhaust was estimated to be 540 in a million. The Study also states that cancer risks from diesel exhaust are about 70 percent of the total risks from exposure to toxic air contaminants in the ambient air.

Non-Cancer Risks

The Hazard Index is an expression used for the potential for non-cancer health effects. The relationship for the non-cancer health effects of DPM is given by the following equation: Hazard Index = Annual DPM concentration ($\mu g/m^3$) / Reference Exposure Level (REL) for DPM.[2] The chronic REL for DPM was established by OEHHA as 5 $\mu g/m^3$.

Air Quality—Criteria Pollutant Emission Modeling

The following pages contain the output from the URBEMIS2002 and Caline4 models.

1 Estimated probability that a person will contract cancer as a result of inhalation of a DPM concentration of one $\mu g/m^3$ continuously over a period of 70 years.

2 REL for DPM is the DPM concentration at which no adverse health effects are anticipated.

URBEMIS2002—Construction and Operational Emissions Output

Construction and Year 2008 Operational Emissions

Page: 1

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               URBEMIS 2002 For Windows   7.5.0

File Name:                      C:\Documents and
Settings\mxm\Desktop\Weston\URBEMIS Files\Weston 8-29-06.urb
Project Name:                   weston construction and ops
Project Location:               San Joaquin Valley
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

                       SUMMARY REPORT
                         (Tons/Year)

CONSTRUCTION EMISSION ESTIMATES
                                                                        PM10
PM10      PM10
 *** 2007 ***                     ROG       NOx        CO       SO2     TOTAL
EXHAUST     DUST
 TOTALS (tpy, unmitigated)      7.54     54.98     57.42      0.00      3.80
2.37      1.43


                                                                        PM10
PM10      PM10
 *** 2008 ***                     ROG       NOx        CO       SO2     TOTAL
EXHAUST     DUST
 TOTALS (tpy, unmitigated)     17.56     30.56     34.38      0.00      1.25
1.25      0.00



AREA SOURCE EMISSION ESTIMATES
                                  ROG       NOx        CO       SO2      PM10
 TOTALS (tpy, unmitigated)      0.10      1.25      0.54      0.00      0.00


OPERATIONAL (VEHICLE) EMISSION ESTIMATES
                                  ROG       NOx        CO       SO2      PM10
 TOTALS (tpy, unmitigated)     42.33     51.87    452.89      0.25     43.36
 TOTALS (tpy, mitigated)       42.33     51.87    452.89      0.25     43.36

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES
                                  ROG       NOx        CO       SO2      PM10
 TOTALS (tpy, unmitigated)     42.43     53.13    453.42      0.25     43.37
 Both Area and Operational Mitigation must be turned on to get a combined
mitigated total.
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Page: 2

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\mxm\Desktop\Weston\URBEMIS Files\Weston 8-29-06.urb
Project Name: weston construction and ops
Project Location: San Joaquin Valley
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Tons/Year)

Construction Start Month and Year: May, 2007
Construction Duration: 12
Total Land Use Area to be Developed: 60 acres
Maximum Acreage Disturbed Per Day: 10 acres
Single Family Units: 0 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 710000

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	1.43	-	1.43
Off-Road Diesel	0.34	2.33	2.65	-	0.09	0.09	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00
Total tons/year	0.34	2.33	2.70	0.00	1.52	0.09	1.43
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	7.10	52.59	53.53	-	2.28	2.28	0.00
Bldg Const Worker Trips	0.10	0.06	1.19	0.00	0.00	0.00	0.00

Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	7.20	52.65	54.72	0.00	2.28	2.28	0.00
Total all phases tons/yr	7.54	54.98	57.42	0.00	3.80	2.37	1.43

*** 2008***

Phase 1 - Demolition Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	4.24	29.96	32.96	-	1.24	1.24	0.00
Bldg Const Worker Trips	0.04	0.04	0.69	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	13.13	-	-	-	-	-	-
Arch Coatings Worker Trips	0.01	0.01	0.17	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.07	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.06	0.36	0.52	-	0.01	0.01	0.00

Asphalt On-Road Diesel	0.01	0.19	0.04	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	17.56	30.56	34.38	0.00	1.25	1.25	0.00
Total all phases tons/yr	17.56	30.56	34.38	0.00	1.25	1.25	0.00

Page: 3

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: May '07
Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Graders	174	0.575	8.0
2	Off Highway Trucks	417	0.490	8.0
2	Other Equipment	190	0.620	8.0
2	Rubber Tired Dozers	352	0.590	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jun '07
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jun '07
SubPhase Building Duration: 10.7 months
Off-Road Equipment

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

Start Month/Year for SubPhase Architectural Coatings: Mar '08
SubPhase Architectural Coatings Duration: 1.1 months
Start Month/Year for SubPhase Asphalt: Apr '08
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 50
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
5	Pavers	132	0.590	8.0
5	Rollers	114	0.430	8.0

Page: 4

AREA SOURCE EMISSION ESTIMATES

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.09	1.25	0.50	-	0.00
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.03	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS (tpy, unmitigated)	0.10	1.25	0.54	0.00	0.00

Page: 5

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Regnl shop. center	42.33	51.87	452.89	0.25	43.36
TOTAL EMISSIONS (tons/yr)	42.33	51.87	452.89	0.25	43.36

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2008 Temperature (F): 85 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Regnl shop. center	49.58 trips / 1000 sq. ft.	710.00	35,201.80

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00

Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

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)

Regnl shop. center	2.0	1.0	97.0

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Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Regnl shopping cntr changed from 55 to 50
The Diverted Trip % for Regnl shopping cntr changed from 35 to 40

Changes made to the default values for Construction

Changes made to the default values for Area

The landscape year changed from 2004 to 2008.

Changes made to the default values for Operations

The pass by trips option switch changed from off to on.
The operational emission year changed from 2004 to 2008.
The travel mode environment settings changed from both to: non-residential

Analysis Year 2025 Operational Emissions

Page: 1

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\mxm\Desktop\Weston\URBEMIS Files\Weston 2025 8-29-06.urb
Project Name: weston construction and ops
Project Location: San Joaquin Valley
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.09	1.25	0.53	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	12.05	12.33	116.78	0.25	43.16
TOTALS (tpy, mitigated)	12.05	12.33	116.78	0.25	43.16

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	12.14	13.58	117.31	0.25	43.16

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.

Page: 2

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\mxm\Desktop\Weston\URBEMIS Files\Weston 2025 8-29-06.urb
Project Name: weston construction and ops
Project Location: San Joaquin Valley
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.09	1.25	0.50	-	0.00
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00

Landscaping	0.00	0.00	0.02	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS (tpy, unmitigated)	0.09	1.25	0.53	0.00	0.00

Page: 3

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Regnl shop. center	12.05	12.33	116.78	0.25	43.16
TOTAL EMISSIONS (tons/yr)	12.05	12.33	116.78	0.25	43.16

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2025 Temperature (F): 85 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Regnl shop. center	49.58 trips / 1000 sq. ft.	710.00	35,201.80

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.50	0.00	100.00	0.00
Light Truck < 3,750 lbs	15.70	0.00	99.40	0.60
Light Truck 3,751- 5,750	16.50	0.00	100.00	0.00
Med Truck 5,751- 8,500	7.50	0.00	98.70	1.30
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.90	0.00	22.20	77.80
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.50	40.00	60.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	2.00	0.00	90.00	10.00

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)						
Regnl shop. center				2.0	1.0	97.0

Page: 4

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Regnl shopping cntr changed from 55 to 50
The Diverted Trip % for Regnl shopping cntr changed from 35 to 40

Changes made to the default values for Construction

Changes made to the default values for Area

The landscape year changed from 2004 to 2020.

Changes made to the default values for Operations

The pass by trips option switch changed from off to on.
The operational emission year changed from 2004 to 2025.
The travel mode environment settings changed from both to: non-residential

Caline4—Carbon Monoxide Emission Modeling Output

Existing—2005

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: Weston Ranch - Existing
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


  I.  SITE VARIABLES

        U=     .5 M/S             Z0= 100. CM            ALT=     3. (M)
      BRG= WORST CASE             VD=   .0 CM/S
     CLAS=     7 (G)              VS=   .0 CM/S
     MIXH= 1000. M               AMB=   .0 PPM
    SIGTH=    5. DEGREES        TEMP= 12.0 DEGREE (C)


 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. Segment 1    *   366  1922   549  1952 *  AG   1542   4.8     .0  22.0
B. Segment 1    *   549  1952   732  2074 *  AG   1542   4.8     .0  22.0
C. Segment 8    *   549   355   732   355 *  AG   1259   4.1     .0  13.0
D. Segment 8    *   732   355  1464   366 *  AG   1259   4.1     .0  13.0
E. Segment 3    *   612  1281   612  1098 *  AG    336   5.0     .0  16.0
F. Segment 3    *   612  1098   669   915 *  AG    336   5.0     .0  16.0


III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*---------------------
1. Recpt 1  *    458   1941   1.8
2. Recpt 2  *    732    360   1.8
3. Recpt 3  *    623   1098   1.8


 IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *           CONC/LINK
            *  BRG  * CONC  *             (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F
-------------*-------*-------*-------------------------------
1. Recpt 1  *   78. *   1.0 *   .8   .2   .0   .0   .0   .0
2. Recpt 2  *   91. *   1.4 *   .0   .0   .0  1.4   .0   .0
3. Recpt 3  *  170. *    .3 *   .0   .0   .0   .0   .0   .2
```

Near Term Plus Project

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: Weston Ranch - Near Term + Proj
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


  I.  SITE VARIABLES

        U=    .5 M/S             Z0= 100. CM            ALT=     3. (M)
      BRG= WORST CASE            VD=   .0 CM/S
     CLAS=     7 (G)             VS=   .0 CM/S
     MIXH= 1000. M              AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 12.0 DEGREE (C)


 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. Segment 1    *   366  1922   549  1952 *  AG   3325   2.7     .0  22.0
B. Segment 1    *   549  1952   732  2074 *  AG   3325   2.7     .0  22.0
C. Segment 8    *   549   355   732   355 *  AG   4266   2.6     .0  13.0
D. Segment 8    *   732   355  1464   366 *  AG   4266   2.6     .0  13.0
E. Segment 3    *   612  1281   612  1098 *  AG    858   3.2     .0  16.0
F. Segment 3    *   612  1098   669   915 *  AG    858   3.2     .0  16.0


III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*---------------------
1. Recpt 1  *    458   1941   1.8
2. Recpt 2  *    732    360   1.8
3. Recpt 3  *    623   1098   1.8


 IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *           CONC/LINK
            *  BRG  * CONC  *             (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F
-------------*-------*-------*-------------------------------
1. Recpt 1  *   79. *   1.2 *   .9   .2   .0   .0   .0   .0
2. Recpt 2  *   92. *   2.5 *   .0   .0   .0  2.5   .0   .0
3. Recpt 3  *  171. *    .4 *   .0   .0   .0   .0   .0   .3
```

Year 2025 Plus Project

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: Weston Ranch - Cumul 2025 + Proj
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


  I.  SITE VARIABLES

        U=    .5 M/S             Z0= 100. CM            ALT=     3. (M)
      BRG= WORST CASE            VD=   .0 CM/S
     CLAS=     7 (G)             VS=   .0 CM/S
     MIXH= 1000. M              AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 12.0 DEGREE (C)


 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. Segment 1    *   366  1922   549  1952 *  AG   3750    .9     .0  22.0
B. Segment 1    *   549  1952   732  2074 *  AG   3750    .9     .0  22.0
C. Segment 8    *   549   355   732   355 *  AG   5486    .9     .0  13.0
D. Segment 8    *   732   355  1464   366 *  AG   5486    .9     .0  13.0
E. Segment 3    *   612  1281   612  1098 *  AG    758   1.1     .0  16.0
F. Segment 3    *   612  1098   669   915 *  AG    758   1.1     .0  16.0


III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*---------------------
1. Recpt 1  *    458   1941   1.8
2. Recpt 2  *    732    360   1.8
3. Recpt 3  *    623   1098   1.8


 IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *           CONC/LINK
            *  BRG  * CONC  *             (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F
-------------*-------*-------*-----------------------------
1. Recpt 1  *   79. *    .4 *   .3   .0   .0   .0   .0   .0
2. Recpt 2  *   92. *   1.1 *   .0   .0   .0  1.1   .0   .0
3. Recpt 3  *  171. *    .1 *   .0   .0   .0   .0   .0   .1
```

References

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California Air Resource Board, 2000. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. October 2000.

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Environmental Protection Agency. 1993. *Guideline on Air Quality Models (Revised, including Supplements)*, EPA-450/2-78-027R, February 1993.

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San Joaquin Valley Air Pollution Control District, 2003, Ambient Air Quality Standards and Attainment Status, <www.valleyair.org/aqinfo/attainment.htm>.

South Coast Air Quality Management District, *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions*, August 2003.

Appendix G

Potentially Occurring Special-Status Species

ESA

APPENDIX G

Potentially Occurring Special-Status Species Weston Ranch Towne Center Project

The "Potential for Occurrence" category is defined as follows:

Unlikely: The project site and/or immediate area do not support suitable habitat for a particular species or project site is outside the species' known range.

Low Potential: The project site and/or immediate area provide only limited habitat for a particular species. In addition, the known range for a particular species may be outside the project area.

Medium Potential: The project site and/or adjacent areas that could be affected by the project provide suitable habitat for a particular species; species has not been documented in the project area.

High Potential: The project site and/or immediate area provide ideal habitat conditions for a particular species; species has been documented in the project area.

Scientific Name Common Name	Listing Status (Federal/ State/CNPS)	General Habitat	Potential for Occurrence	Covered by SJMSCP?
Plants				
Aster lentus Suisun Marsh aster	FSC/--/1B	Brackish and freshwater marshes and swamps.	Unlikely. Project Area does not contain suitable habitat.	Y
Astragalus tener var. *tener* Alkali milk-vetch	FSC/--/1B	Alkali playa, valley and foothill grassland, and vernal pools.	Unlikely. Project Area does not contain suitable habitat.	Y
Atriplex joaquiniana San Joaquin spearscale (=saltbrush)	FSC/--/1B	Seasonal alkali wetlands or sink scrub within chenopod scrub, meadows, and grasslands.	Unlikely. Project Area does not contain suitable habitat.	N
Blepharizonia plumosa ssp. *plumosa* Big tarplant	FSC/--/1B	Valley and foothill grassland habitats. Usually occurs on slopes and often in burned areas.	Unlikely. Not detected during surveys.	N
Carex comosa Bristly sedge	--/--/2	Marshes and swamps.	Unlikely. Project Area does not contain suitable habitat.	Y
Castilleja campestris ssp. *Succulenta* Succulent (=fleshy) owl's-clover	FT/SE/1B	Vernal pools (often acidic).	Unlikely. Project Area does not contain suitable habitat.	Y
Cirsium crassicaule Slough thistle	FSC/--/1B	Endemic to the San Joaquin Valley. Found in chenopod scrub, marshes, swamps, and riparian scrub habitats.	Unlikely. Project Area does not contain suitable habitat.	Y
Cordylanthus palmatus Palmate-bracted bird's-beak	FE/SE/1B	Pescadero silty clay within chenopod scrub and grasslands.	Unlikely. Project Area does not contain suitable habitat.	N
Erodium macrophyllum Round-leaved filaree	--/--/2	Open habitat with friable clay soils in valley and foothill grasslands and foothill woodlands.	Unlikely. Not detected during surveys.	N
Eryngium racemosum Delta coyote-thistle (=button-celery)	--/SE/1B	Riparian scrub habitats. Often found on clay soils in seasonally inundated floodplains.	Unlikely. Project Area does not contain suitable habitat.	Y
Hibiscus lasiocarpus Rose-mallow	--/--/2	Marshes and swamps.	Unlikely. Project Area does not contain suitable habitat.	Y
Lathyrus jepsonii var. *jepsonii* Delta tule pea	FSC/--/1B	Freshwater and brackish marshes.	Unlikely. Project Area does not contain suitable habitat.	Y
Lilaeopsis masonii Mason's lilaeopsis	FSC/SR/1B	Freshwater and brackish marshes and riparian scrub.	Unlikely. Project Area does not contain suitable habitat.	Y
Limosella subulata Delta mudwort	--/--/2	Riparian scrub, freshwater marsh, and brackish marsh habitats.	Unlikely. Project Area does not contain suitable habitat.	Y
Sagittaria sanfordii Valley Sagittaria (=Sanford's arrowhead)	FSC/--/1B	Marshes and swamps.	Unlikely. Project Area does not contain suitable habitat.	Y

Scientific Name Common Name	Listing Status (Federal/ State/CNPS)	General Habitat	Potential for Occurrence	Covered by SJMSCP?
Scutellaria lateriflora Blue skullcap	--/--/2	Found in wet meadow and marsh habitats.	Unlikely. Project Area does not contain suitable habitat.	Y
Trichocoronis wrightii var. *wrightii* Wright's trichocoronis	--/--/2	Alkaline soils in marshes, riparian forest, meadows, seeps, and vernal pools.	Unlikely. Project Area does not contain suitable habitat.	Y
Tropidocarpum capparideum Caper-fruited tropidocarpum	FSC/--/1A	Alkaline hills of valley and foothill grassland habitats.	Unlikely. Project Area does not contain suitable habitat.	Y
Animals—Invertebrates				
Anthicus antiochensis Antioch Dunes anthicid beetle	FSC/--/--	Loose, sandy soil occurring as dunes or along riparian areas.	Unlikely. Project Area does not contain suitable habitat.	N
Anthicus sacramento Sacramento anthicid beetle	FSC/--/--	Restricted to sand dune areas of the Sacramento/San Joaquin Delta. Uses sand slip faces among bamboo and willow.	Unlikely. Project Area does not contain suitable habitat.	N
Branchinecta lynchi Vernal pool fairy shrimp	FT/--/--	Vernal pools, swales, and other seasonal aquatic habitats in grasslands.	Unlikely. Project Area does not contain suitable habitat.	Y
Branchinecta mesovallensis Mid-valley fairy shrimp	FSC/--/--	Lifecycle restricted to shallow vernal pools.	Unlikely. Project Area does not contain suitable habitat.	Y
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	FT/--/--	Elderberry shrubs.	Unlikely. Project Area does not contain suitable habitat. No elderberry shrubs were detected during the reconnaissance surveys.	Y
Lepidurus packardi Vernal pool tadpole shrimp	FE/--/--	Life cycle restricted to vernal pools.	Unlikely. Project Area does not contain suitable habitat.	Y
Linderiella occidentalis California linderiella fairy shrimp	FSC/--/--	Lifecycle restricted to vernal pools.	Unlikely. Project Area does not contain suitable habitat.	N
Lytta molesta Molestan blister beetle	FSC/--/--	Lifecycle restricted to vernal pools.	Unlikely. Project Area does not contain suitable habitat.	Y
Animals—Fish				
Acipenser medirostris Green sturgeon	FC/CSC/--	Spawn in the Sacramento River and the Klamath River. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock.	Unlikely. Project Area does not contain suitable habitat.	Y
Hypomesus transpacificus Delta smelt (Critical Habitat)	FT/ST/--	Open surface waters in the Sacramento/San Joaquin Delta.	Unlikely. Project Area does not contain suitable habitat.	Y
Lampetra ayresi River lamprey	FSC/CSC/ --	Lower Sacramento River, San Joaquin River, and Russian River. May also occur in coastal streams north of San Francisco Bay.	Unlikely. Project Area does not contain suitable habitat.	N

Scientific Name Common Name	Listing Status (Federal/ State/CNPS)	General Habitat	Potential for Occurrence	Covered by SJMSCP?
Lampetra hubbsi Kern brook lamprey	FSC/CSC/ --	Lower reaches of the Merced River, Kaweah River, Kings River, and San Joaquin River.	Unlikely. Project Area does not contain suitable habitat.	N
Lampetra tridentate Pacific lamprey	FSC/--/--	Estuaries and nearby ocean areas, migrates upstream to spawn.	Unlikely. Project Area does not contain suitable habitat.	N
Oncorhynchus tshawytscha Central Valley fall/late-fall run chinook salmon	FC/CSC/--	Sacramento and San Joaquin Rivers and their tributaries.	Unlikely. Project Area does not contain suitable habitat.	N
Oncorhynchus tshawytscha Winter-run chinook salmon	FE/SE/--	Spawns in Sacramento River and tributaries where gravelly substrate and shaded riparian habitat occurs.	Unlikely. Project Area does not contain suitable habitat.	N
Oncorhynchus tshawytscha Central Valley spring-run chinook salmon	FT/ST/--	Sacramento and San Joaquin Rivers and their tributaries.	Unlikely. Project Area does not contain suitable habitat.	N
Oncorhynchus mykiss irideus Central Valley steelhead	FT/--/--	Sacramento and San Joaquin Rivers and their tributaries.	Unlikely. Project Area does not contain suitable habitat.	N
Pogonichthys macrolepidotus Sacramento splittail	FSC/CSC/--	Delta and associated marshes. Requires flooded vegetation for spawning and juvenile foraging habitat.	Unlikely. Project Area does not contain suitable habitat.	Y
Spirinchus thaleichthys Longfin smelt	FSC/CSC/--	Found in all major bays and estuaries from San Francisco Bay northward.	Unlikely. Project Area does not contain suitable habitat.	Y
Animals—Amphibians				
Ambystoma californiense California tiger salamander	FT/CSC/--	Annual grassland and grassy understory of valley-foothill hardwood habitats in central and northern California. Need underground refuges and vernal pools or other seasonal water sources.	Unlikely. Project Area does not contain suitable habitat.	Y
Rana aurora draytonii California red-legged frog	FT/CSC/--	Breeds in slow moving streams, ponds, and marshes with emergent vegetation; forages in nearby uplands within about 200 feet.	Unlikely. Project Area does not contain suitable habitat.	Y
Spea (=Scaphiopus) hammondii Western spadefoot toad	FSC/CSC/--	Breed in shallow, temporary pools formed by winter rains. Takes refuge in burrows.	Unlikely. Project Area does not contain suitable habitat.	Y
Animals—Reptiles				
Anniella pulchra pulchra Silvery legless lizard	FSC/CSC/--	Burrows in loose soils (sand, loam, or humus) associated with drainages and valley bottoms.	Low Potential. Very limited and disturbed potential habitat in Project Area.	N

Scientific Name Common Name	Listing Status (Federal/ State/CNPS)	General Habitat	Potential for Occurrence	Covered by SJMSCP?
Emys (=Clemmys) marmorata Western pond turtle	FSC/CSC/--	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat for egg-laying.	Unlikely. Project Area does not contain suitable habitat.	Y
Masticophis flagellum ruddocki San Joaquin coachwhip (=whipsnake)	FSC/CSC/--	Dry, open areas in brushland and rocky hillsides.	Unlikely. Project Area does not contain suitable habitat.	Y
Phrynosoma coronatum frontale California horned lizard	FSC/CSC/--	Nests in loose soil within riparian and oak woodland habitats.	Unlikely. Project Area does not contain suitable habitat.	Y
Thamnophis gigas Giant garter snake	FT/ST/--	Freshwater marsh, low gradient streams, drainage canals, and irrigation ditches; uplands within about 200 feet of aquatic habitat.	Unlikely. Project Area does not contain suitable habitat.	Y
Animals—Birds				
Agelaius tricolor Tricolored blackbird	FSC/CSC/-- (nesting colony)	Largely endemic to California, most numerous in the Central Valley and nearby vicinity. Requires open water, protected nesting substrate, and foraging grounds within vicinity of the nesting colony.	Unlikely. Project Area does not contain suitable habitat.	Y
Amphispiza belli belli Bell's sage sparrow	FSC/CSC/--	Sage scrub habitat.	Unlikely. Project Area does not contain suitable habitat.	Y
Athene cunicularia Burrowing owl	FSC/CSC/-- (burrow sites)	Open, dry annual or perennial grasslands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals.	Medium Potential. Very limited and disturbed potential habitat in Project Area. Unidentified burrow was detected during the reconnaissance survey along the eastern boundary of the Project Area.	Y
Branta canadensis leucopareia Aleutian Canada goose	FD/--/-- (wintering)	Winter resident in the Central Valley. Tends to graze in open fields near water.	Low Potential. Potentially suitable, but limited and disturbed foraging habitat occurs in the Project Area.	Y
Buteo regalis Ferruginous hawk	FSC/CSC/-- (wintering)	Uncommon wintering species throughout the Central Valley. Forages for rodents over open country.	Medium Potential. Potentially suitable foraging habitat occurs in the Project Area.	Y
Buteo swainsoni Swainson's hawk	--/ST/--	Forages in grasslands and open agricultural fields. Breeds in oak savanna and riparian areas.	High Potential. Potential nesting and foraging habitat present in the Project Area. Juvenile observed on a stick nest on Blake Circle within ½ mile of the Project Area by ESA biologists during a site visit on July 2, 2003.	Y

Scientific Name Common Name	Listing Status (Federal/ State/CNPS)	General Habitat	Potential for Occurrence	Covered by SJMSCP?
Carduelis lawrencei Lawrence's goldfinch	FSC/--/-- (nesting)	Breeds in open, dry woodlands, especially oaks.	Unlikely. Project Area is outside of known breeding range.	N
Chaetura vauxi Vaux's swift	FSC/CSC/-- (nesting)	Nests primarily in coniferous habitats from May through August.	Unlikely. Project Area is outside of known breeding range.	N
Charadrius montanus Mountain plover	FSC/CSC/-- (wintering)	Winters in barren agricultural fields and grasslands with sparse vegetation between September and March.	Medium Potential. Potentially suitable foraging habitat occurs in the Project Area.	Y
Elanus leucurus White-tailed (=black shouldered) kite	FSC/CFP/-- (nesting)	Nests in dense oak, willow, or other tree stands near open grasslands, meadows, farmlands, and emergent wetlands for foraging.	Medium Potential. Potentially suitable habitat occurs in the Project Area.	Y
Empidonax traillii brewsteri Little willow flycatcher	--/SE/-- (nesting)	Wet meadow and montane riparian habitats at 600–2,500 meters.	Unlikely. Project Area is outside of known breeding range.	N
Falco peregrinus anatum American peregrine falcon	FD/SE/-- (nesting)	Breeds on high cliffs, banks, dunes, mounds, and human-made structures near wetlands, lakes, rivers, or other sources of water.	Unlikely. Project Area does not contain suitable habitat.	N
Grus canadensis tabida Greater sandhill crane	--/ST, CFP/-- (nesting & wintering)	Winters in Central Valley within annual and perennial grasslands, croplands, and freshwater emergent wetlands.	Medium Potential. Potentially suitable foraging habitat occurs in the Project Area.	Y
Haliaeetus leucocephalus Bald eagle	FT, FPD/SE, CFP/-- (nesting & wintering)	Nests near lakes, reservoirs, and large rivers. Winters near similar habitats at lower latitudes.	Unlikely. Project Area does not contain suitable habitat.	N
Lanius ludovicianus Loggerhead shrike	FSC/CSC/-- (nesting)	Nests in dense shrub or tree foliage; forages in scrub, open woodlands, grasslands, and croplands.	High Potential. Potentially suitable breeding and foraging habitat occurs in the Project Area. One individual was observed perched on a power line during the reconnaissance survey.	Y
Laterallus jamaicensis coturniculus California black rail	FSC/ST, CFP/--	Saline, brackish, and fresh emergent wetlands.	Unlikely. Project Area does not contain suitable habitat.	Y
Limosa fedoa Marbled godwit	FSC/--/--	A common to abundant migrant and winter visitant from mid-August to early May in estuarine habitats the length of the state.	Unlikely. Project Area does not contain suitable habitat.	N
Melanerpes lewis Lewis' woodpecker	FSC/--/-- (nesting)	Uncommon local winter resident of oak savannas and coniferous habitat.	Unlikely. Project Area does not contain suitable breeding habitat.	N
Numenius americanus Long-billed curlew	FSC/CSC/-- (nesting)	Winters in the Central Valley in croplands and wetlands, breeds in northeastern California.	Unlikely. Project Area does not contain suitable breeding habitat.	Y

Scientific Name Common Name	Listing Status (Federal/ State/CNPS)	General Habitat	Potential for Occurrence	Covered by SJMSCP?
Plegadis chihi White-faced ibis	FSC/CSC/-- (rookery site)	Nest and forages in freshwater marshes and rivers.	Unlikely. Project Area does not contain suitable habitat.	Y
Selasphorus rufus Rufous hummingbird	FSC/--/-- (nesting)	Spring migrant through region; forages in oak woodlands, riparian, and chaparral habitats.	Unlikely. Project Area does not contain suitable habitat.	N
Toxostoma redivivum California thrasher	FSC/--/--	Nests in dense chaparral habitats from March through August.	Unlikely. Project Area does not contain suitable habitat.	N
Animals—Mammals				
Corynorhinus (=Plecotus) townsendii townsendii Townsend's (=Pacific) western big-eared bat	FSC/CSC/--	Found throughout CA, highly associated with mines and caves. Commonly feeds on moths. Maternity colony most active from May through July.	Unlikely. Project Area does not contain suitable habitat.	Y
Eumops perotis californicus Greater western mastiff-bat	FSC/CSC/--	Roosts primarily in crevices within cliffs and canyons, occasionally in buildings. Primarily feeds on moths. Maternity colonies active May through July.	Medium Potential. Project Area contains limited roosting and foraging habitat. Potential roosting in structures to be demolished.	Y
Myotis ciliolabrum Small-footed myotis bat	FSC/--/--	Primarily found in mid to high elevations (6,000 feet). Roosts in cavities within trees and mines.	Unlikely. Project Area is outside of known range.	Y
Myotis volans Long-legged myotis bat	FSC/--/--	Primarily found in forested habitats. Mostly roosts in large diameter trees and snags.	Unlikely. Project Area does not contain suitable habitat.	Y
Myotis yumanensis Yuma myotis	FSC/--/--	Often found near reservoirs. Roosts in buildings, trees, mines, caves, bridges, and rock crevices. Maternity colonies active May through July.	Medium Potential. Project Area contains limited roosting and foraging habitat. Potential roosting in structures to be demolished.	Y
Perognathus inornatus inornatus San Joaquin pocket mouse	FSC/--/--	Typically found in grasslands and blue oak savanna; needs friable soils.	Low Potential. Very limited and disturbed potential habitat in Project Area.	Y
Neotoma fuscipes riparia Riparian (San Joaquin Valley) woodrat	FE/CSC/--	Dense shrub cover with some trees. Requires cavities for breeding. Currently known only from the San Joaquin and Stanislaus rivers in the northern San Joaquin Valley.	Unlikely. Project Area does not contain suitable habitat.	Y
Sylvilagus bachmani riparius Riparian brush rabbit	FE/SE/--	Riparian communities within natural floodplains, dominated by willows, with clearings. Currently only known from the Stanislaus River.	Unlikely. Project Area does not contain suitable habitat.	Y
Vulpes macrotis mutica San Joaquin kit fox	FE/ST/--	Annual grasslands or grassy open stages with scattered shrubby vegetation. Requires suitable prey base and loose-textured soils for burrowing.	Unlikely. Project Area is outside of known range.	Y

Scientific Name Common Name	Listing Status (Federal/ State/CNPS)	General Habitat	Potential for Occurrence	Covered by SJMSCP?

SOURCE: U.S. Fish and Wildlife Service, 2004; California Natural Diversity Database, 2004; California Native Plant Society, 2004; San Joaquin Council of Governments, 2000.

STATUS CODES:

FEDERAL: (U.S. Fish and Wildlife Service)
- FC = Candidate for Federal Listing
- FD = Federal Delisted
- FE = Listed as Endangered by the Federal Government
- FPD = Federal Proposed for Delisting
- FPT = Proposed for Listing as Threatened
- FSC = Federal Species of Special Concern
- FT = Listed as Threatened by the Federal Government
- -- = No listing

STATE: (California Department of Fish and Game)
- SE = Listed as Endangered by the State of California
- CFP = California Fully Protected
- SR = Listed as Rare by the State of California (plants only)
- CSC = California Species of Special Concern
- ST = Listed as Threatened by the State of California
- -- = No listing

CNPS: (California Native Plant Society)
- List 1A = Presumed extinct in California
- List 1B = Plants rare, threatened, or endangered in California and elsewhere
- List 2 = Plants rare, threatened, or endangered in California but more common elsewhere
- -- = No listing

Appendix H
Noise Analysis

ESA

APPENDIX H

Noise Analysis

Noise Modeling and Measurements

The following pages contain the outputs from the FHWA model and Metrosonics db-308 noise meters.

FHWA Model

Traffic Noise Level Estimates	rev 2/1/06						3-4 meters per lane						15m=	49.2	FEET				
#1- Carolyn Weston Blvd (b/t McDougald and Manthey)																			
	TOTAL		VEHICLE TYPE %					VEHICLE SPEED						calveno factors			Calculated dBA (15 m from roadway center)	Receptor Distance from Roadway Center (m)	Adjusted Level (dBA) 3 dBA Atten	Adjusted Level (dBA) 4.5 dBA Atten
ROAD SEGMENT (b/t Study Intersection 1 and 2)	# VEHICLES	Auto	Medium Truck		Heavy Truck			Auto	k/h	MT	k/h	HT	k/h	Auto	MT	HT				
		%	Auto	%	MT	%	HT													
Existing PM	1,542	98.9	1,525	1.0	15	0.1	2	40	64	40	64	40	64	67.8	56.8	53.2	68.3	20	67.0	66.4
Near-Term PM	2,890	98.9	2,858	1.0	29	0.1	3	40	64	40	64	40	64	70.5	59.5	55.9	71.0	20	69.8	69.1
Near-Term + Project PM	3,325	98.9	3,288	1.0	33	0.1	3	40	64	40	64	40	64	71.1	60.2	56.5	71.6	20	70.4	69.7
Cum 2025 w/o Project PM	3,315	98.9	3,279	1.0	33	0.1	3	40	64	40	64	40	64	71.1	60.1	56.5	71.6	20	70.4	69.7
Cum 2025 + Project PM	3,750	98.9	3,709	1.0	38	0.1	4	40	64	40	64	40	64	71.7	60.7	57.0	72.1	20	70.9	70.3
#2- Carolyn Weston Blvd (b/t I-5 and Manthey)																			
	TOTAL		VEHICLE TYPE %					VEHICLE SPEED						calveno factors			Calculated dBA (15 m from roadway center)	Receptor Distance from Roadway Center (m)	Adjusted Level (dBA) 3 dBA Atten	Adjusted Level (dBA) 4.5 dBA Atten
ROAD SEGMENT (b/t Study Intersection 2 and 3)	# VEHICLES	Auto	Medium Truck		Heavy Truck			Auto	k/h	MT	k/h	HT	k/h	Auto	MT	HT				
		%	Auto	%	MT	%	HT													
Existing PM	1,753	98.9	1,734	1.0	18	0.1	2	40	64	40	64	40	64	68.4	57.4	53.7	68.8	20	67.6	67.0
Near-Term PM	2,270	98.9	2,245	1.0	23	0.1	2	40	64	40	64	40	64	69.5	58.5	54.8	70.0	20	68.7	68.1
Near-Term + Project PM	2,671	98.9	2,642	1.0	27	0.1	3	40	64	40	64	40	64	70.2	59.2	55.5	70.7	20	69.4	68.8
Cum 2025 w/o Project PM	2,670	98.9	2,641	1.0	27	0.1	3	40	64	40	64	40	64	70.2	59.2	55.5	70.7	20	69.4	68.8
Cum 2025 + Project PM	3,071	98.9	3,037	1.0	31	0.1	3	40	64	40	64	40	64	70.8	59.8	56.2	71.3	20	70.0	69.4
#3- McDougald (b/t Carolyn Weston and Henry Long)																			
	TOTAL		VEHICLE TYPE %					VEHICLE SPEED						calveno factors			Calculated dBA (15 m from roadway center)	Receptor Distance from Roadway Center (m)	Adjusted Level (dBA) 3 dBA Atten	Adjusted Level (dBA) 4.5 dBA Atten
ROAD SEGMENT (b/t Study Intersection 1 and 8)	# VEHICLES	Auto	Medium Truck		Heavy Truck			Auto	k/h	MT	k/h	HT	k/h	Auto	MT	HT				
		%	Auto	%	MT	%	HT													
Existing PM	336	98.75	332	1.0	3	0.3	1	30	48	30	48	30	48	57.6	48.3	49.4	58.6	20	57.4	56.7
Near-Term PM	730	98.75	721	1.0	7	0.3	2	30	48	30	48	30	48	61.0	51.6	52.7	62.0	20	60.7	60.1
Near-Term + Project PM	858	98.75	847	1.0	9	0.3	2	30	48	30	48	30	48	61.7	52.3	53.4	62.7	20	61.4	60.8
Cum 2025 w/o Project PM	690	98.75	681	1.0	7	0.3	2	30	48	30	48	30	48	60.7	51.4	52.5	61.7	20	60.5	59.9
Cum 2025 + Project PM	758	98.75	749	1.0	8	0.3	2	30	48	30	48	30	48	61.1	51.8	52.9	62.2	20	60.9	60.3
#4- Manthey Rd (b/t Carolyn Weston and Henry Long)																			
	TOTAL		VEHICLE TYPE %					VEHICLE SPEED						calveno factors			Calculated dBA (15 m from roadway center)	Receptor Distance from Roadway Center (m)	Adjusted Level (dBA) 3 dBA Atten	Adjusted Level (dBA) 4.5 dBA Atten
ROAD SEGMENT (b/t Study Intersection 2 and 9)	# VEHICLES	Auto	Medium Truck		Heavy Truck			Auto	k/h	MT	k/h	HT	k/h	Auto	MT	HT				
		%	Auto	%	MT	%	HT													
Existing PM	727	98.9	719	1.0	7	0.1	1	45	72	45	72	45	72	66.0	54.4	50.4	66.4	20	65.2	64.5
Near-Term PM	660	98.9	653	1.0	7	0.1	1	45	72	45	72	45	72	65.6	53.9	49.9	66.0	20	64.7	64.1
Near-Term + Project PM	1,189	98.9	1,176	1.0	12	0.1	1	45	72	45	72	45	72	68.2	56.5	52.5	68.6	20	67.3	66.7
Cum 2025 w/o Project PM	800	98.9	791	1.0	8	0.1	1	45	72	45	72	45	72	66.4	54.8	50.8	66.8	20	65.6	65.0
Cum 2025 + Project PM	1,269	98.9	1,255	1.0	13	0.1	1	45	72	45	72	45	72	68.4	56.8	52.8	68.8	20	67.6	67.0
#5- McDougald (b/t Henry Long and French Camp)																			
	TOTAL		VEHICLE TYPE %					VEHICLE SPEED						calveno factors			Calculated dBA (15 m from roadway center)	Receptor Distance from Roadway Center (m)	Adjusted Level (dBA) 3 dBA Atten	Adjusted Level (dBA) 4.5 dBA Atten
ROAD SEGMENT (b/t Study Intersection 8 and 11)	# VEHICLES	Auto	Medium Truck		Heavy Truck			Auto	k/h	MT	k/h	HT	k/h	Auto	MT	HT				
		%	Auto	%	MT	%	HT													
Existing PM	147	98.75	145	1.0	1	0.3	0	30	48	30	48	30	48	54.0	44.7	45.8	55.0	20	53.8	53.2
Near-Term PM	450	98.75	444	1.0	5	0.3	1	30	48	30	48	30	48	58.9	49.5	50.6	59.9	20	58.6	58.0
Near-Term + Project PM	854	98.75	843	1.0	9	0.3	2	30	48	30	48	30	48	61.6	52.3	53.4	62.7	20	61.4	60.8
Cum 2025 w/o Project PM	730	98.75	721	1.0	7	0.3	2	30	48	30	48	30	48	61.0	51.6	52.7	62.0	20	60.7	60.1

#6- William Moss Blvd (b/t McDougald and Manthey)

ROAD SEGMENT (b/t Study Intersection 6 and 7)	TOTAL # VEHICLES	VEHICLE TYPE % Auto %	Auto	Medium Truck %	MT	Heavy Truck %	HT	VEHICLE SPEED Auto	k/h	MT	k/h	HT	k/h	calveno factors Auto	MT	HT	Calculated dBA (15 m from roadway center)	Receptor Distance from Roadway Center (m)	Adjusted Level (dBA) 3 dBA Atten	Adjusted Level (dBA) 4.5 dBA Atten
Existing PM	440	98.75	435	1.0	4	0.3	1	30	48	30	48	30	48	58.8	49.4	50.5	59.8	20	58.5	57.9
Near-Term PM	360	98.75	356	1.0	4	0.3	1	30	48	30	48	30	48	57.9	48.6	49.7	58.9	20	57.7	57.0
Near-Term + Project PM	634	98.75	626	1.0	6	0.3	2	30	48	30	48	30	48	60.3	51.0	52.1	61.4	20	60.1	59.5
Cum 2025 w/o Project PM	470	98.75	464	1.0	5	0.3	1	30	48	30	48	30	48	59.0	49.7	50.8	60.1	20	58.8	58.2
Cum 2025 + Project PM	504	98.75	498	1.0	5	0.3	1	30	48	30	48	30	48	59.4	50.0	51.1	60.4	20	59.1	58.5

#7- Henry Long Blvd (b/t McDougald and EWS Woods Blvd)

ROAD SEGMENT (Study Intersection 8)	TOTAL # VEHICLES	VEHICLE TYPE % Auto %	Auto	Medium Truck %	MT	Heavy Truck %	HT	VEHICLE SPEED Auto	k/h	MT	k/h	HT	k/h	calveno factors Auto	MT	HT	Calculated dBA (15 m from roadway center)	Receptor Distance from Roadway Center (m)	Adjusted Level (dBA) 3 dBA Atten	Adjusted Level (dBA) 4.5 dBA Atten
Existing PM	317	98.75	313	1.0	3	0.3	1	30	48	30	48	30	48	57.3	48.0	49.1	58.4	20	57.1	56.5
Near-Term PM	560	98.75	553	1.0	6	0.3	1	30	48	30	48	30	48	59.8	50.5	51.6	60.8	20	59.6	59.0
Near-Term + Project PM	560	98.75	553	1.0	6	0.3	1	30	48	30	48	30	48	59.8	50.5	51.6	60.8	20	59.6	59.0
Cum 2025 w/o Project PM	340	98.75	336	1.0	3	0.3	1	30	48	30	48	30	48	57.6	48.3	49.4	58.7	20	57.4	56.8
Cum 2025 + Project PM	380	98.75	375	1.0	4	0.3	1	30	48	30	48	30	48	58.1	48.8	49.9	59.2	20	57.9	57.3

#8a- French Camp Rd (b/t McDougald andI-5)

ROAD SEGMENT (b/t Study Intersection 11 and 13)	TOTAL # VEHICLES	VEHICLE TYPE % Auto %	Auto	Medium Truck %	MT	Heavy Truck %	HT	VEHICLE SPEED Auto	k/h	MT	k/h	HT	k/h	calveno factors Auto	MT	HT	Calculated dBA (15 m from roadway center)	Receptor Distance from Roadway Center (m)	Adjusted Level (dBA) 3 dBA Atten	Adjusted Level (dBA) 4.5 dBA Atten
Existing PM	1,259	98.9	1,245	1.0	13	0.1	1	45	72	45	72	45	72	68.4	56.7	52.7	68.8	20	67.6	66.9
Near-Term PM	1,630	98.9	1,612	1.0	16	0.1	2	45	72	45	72	45	72	69.5	57.9	53.9	69.9	20	68.7	68.0
Near-Term + Project PM	4,266	98.9	4,219	1.0	43	0.1	4	45	72	45	72	45	72	73.7	62.0	58.0	74.1	20	72.9	72.2
Cum 2025 w/o Project PM	2,920	98.9	2,888	1.0	29	0.1	3	45	72	45	72	45	72	72.1	60.4	56.4	72.5	20	71.2	70.6
Cum 2025 + Project PM	5,486	98.9	5,426	1.0	55	0.1	5	45	72	45	72	45	72	74.8	63.1	59.1	75.2	20	73.9	73.3

#8b- French Camp Rd (b/t McDougald andI-5)

ROAD SEGMENT (b/t Study Intersection 11 and 13)	TOTAL # VEHICLES	VEHICLE TYPE % Auto %	Auto	Medium Truck %	MT	Heavy Truck %	HT	VEHICLE SPEED Auto	k/h	MT	k/h	HT	k/h	calveno factors Auto	MT	HT	Calculated dBA (15 m from roadway center)	Receptor Distance from Roadway Center (m)	Adjusted Level (dBA) 3 dBA Atten	Adjusted Level (dBA) 4.5 dBA Atten
Existing PM	1,259	98.9	1,245	1.0	13	0.1	1	45	72	45	72	45	72	68.4	56.7	52.7	68.8	20	67.6	66.9
Near-Term PM	1,630	98.9	1,612	1.0	16	0.1	2	45	72	45	72	45	72	69.5	57.9	53.9	69.9	20	68.7	68.0
Near-Term + Project PM	4,087	98.9	4,042	1.0	41	0.1	4	45	72	45	72	45	72	73.5	61.8	57.9	73.9	20	72.7	72.0
Cum 2025 w/o Project PM	2,920	98.9	2,888	1.0	29	0.1	3	45	72	45	72	45	72	72.1	60.4	56.4	72.5	20	71.2	70.6
Cum 2025 + Project PM	5,486	98.9	5,426	1.0	55	0.1	5	45	72	45	72	45	72	74.8	63.1	59.1	75.2	20	73.9	73.3

#9- French Camp Rd (b/t McDougald and EWS Woods Blvd)

ROAD SEGMENT (b/t Study Intersection 10 and 11)	TOTAL # VEHICLES	VEHICLE TYPE % Auto %	Auto	Medium Truck %	MT	Heavy Truck %	HT	VEHICLE SPEED Auto	k/h	MT	k/h	HT	k/h	calveno factors Auto	MT	HT	Calculated dBA (15 m from roadway center)	Receptor Distance from Roadway Center (m)	Adjusted Level (dBA) 3 dBA Atten	Adjusted Level (dBA) 4.5 dBA Atten
Existing PM	471	98.9	466	1.0	5	0.1	0	45	72	45	72	45	72	64.1	52.5	48.5	64.5	20	63.3	62.7
Near-Term PM	810	98.9	801	1.0	8	0.1	1	45	72	45	72	45	72	66.5	54.8	50.8	66.9	20	65.6	65.0
Near-Term + Project PM	888	98.9	878	1.0	9	0.1	1	45	72	45	72	45	72	66.9	55.2	51.2	67.3	20	66.0	65.4
Cum 2025 w/o Project PM	1,920	98.9	1,899	1.0	19	0.1	2	45	72	45	72	45	72	70.2	58.6	54.6	70.6	20	69.4	68.8
Cum 2025 + Project PM	638	98.9	631	1.0	6	0.1	1	45	72	45	72	45	72	65.5	53.8	49.8	65.8	20	64.6	64.0

#10- Manthey Rd (b/t French Camp Rd and Yettner Rd)

ROAD SEGMENT (b/t Study Intersection 12 and 16)	TOTAL # VEHICLES	VEHICLE TYPE % Auto %	Auto	Medium Truck %	MT	Heavy Truck %	HT	VEHICLE SPEED Auto	k/h	MT	k/h	HT	k/h	calveno factors Auto	MT	HT	Calculated dBA (15 m from roadway center)	Receptor Distance from Roadway Center (m)	Adjusted Level (dBA) 3 dBA Atten	Adjusted Level (dBA) 4.5 dBA Atten
Existing PM	568	98.9	562	1.0	6	0.1	1	45	72	45	72	45	72	64.9	53.3	49.3	65.3	20	64.1	63.5
Near-Term PM	550	98.9	544	1.0	6	0.1	1	45	72	45	72	45	72	64.8	53.1	49.2	65.2	20	64.0	63.3
Near-Term + Project PM	670	98.9	663	1.0	7	0.1	1	45	72	45	72	45	72	65.7	54.0	50.0	66.1	20	64.8	64.2
Cum 2025 w/o Project PM	770	98.9	762	1.0	8	0.1	1	45	72	45	72	45	72	66.3	54.6	50.6	66.7	20	65.4	64.8

Noise Measurement Data

Long Term – Site 1

```
METROSONICS db-308 SN 3154 V3.0  4/88
REPORT PRINTED  7/24/03 @ 20:48:09

DOUBLING RATE:   3dB    FILTER:  A WGHT
DOSE CRITERION: 90dB    RESPONSE:  SLOW
PRE-CALIBRATION TIME:   1/01/88 @  0:40:13
PRE-CALIBRATION RANGE:  40.9dB TO 140.9dB
NO POST-CALIBRATION

CALIBRATOR TYPE & SERIAL # : _________________________

CALIBRATOR CALIBRATION DATE: _________________________

TEST BEGAN   7/22/03 @ 16:00:03
TEST LENGTH:     1DAYS 10:00:00
TEST ENDED   7/24/03 @  2:00:03
TEST INTERRUPTIONS:   1

Lav = 59.6dB   Lav ( 80)= 47.5dB
SEL =110.3dB   Lav ( 90)= 40.9dB
Lmax = 84.7dB  ON  7/23/03 @  9:24:11
 Lpk =110.3dB  ON  7/22/03 @ 18:18:36
TIME OVER 115dB  0D  0:00:00.00

 8 HR DOSE ( 80dB CUTOFF)=  0.02%
 8 HR DOSE ( 90dB CUTOFF)=  0.00%

"TIME HISTORY REPORT

"# OF PERIODS:   34   MODE: CONTINUOUS
"PERIOD LENGTH:  1:00:00
"TIME HISTORY CUTOFF: NONE
"Ln(1): 10.0%  Ln(2): 90.0%

"DATE:  7/22/03  TAG #:    0
```

"INT"	"TIME"	"Lav"	"Lmx"	"Lpk"	"L1"	"L2"
1	"16:00:03"	60.7	79.7	"UNR"	65	43
2	"17:00:03"	61.3	82.0	"UNR"	65	42
3	"18:00:03"	61.2	84.6	110.3	64	41
4	"19:00:03"	59.1	83.5	"UNR"	62	41
5	"20:00:03"	58.6	81.9	"UNR"	62	40
6	"21:00:03"	60.0	79.2	"UNR"	63	40
7	"22:00:03"	54.8	74.6	"UNR"	54	40
8	"23:00:03"	55.7	78.7	"UNR"	53	40
9	" 0:00:03"	51.7	71.6	"UNR"	50	40
10	" 1:00:03"	50.9	72.2	"UNR"	49	40
11	" 2:00:03"	53.0	71.0	"UNR"	53	41
12	" 3:00:03"	55.8	74.1	"UNR"	55	43
13	" 4:00:03"	59.5	78.7	"UNR"	62	41
14	" 5:00:03"	60.0	77.4	"UNR"	61	54
15	" 6:00:03"	62.0	82.9	"UNR"	64	55
16	" 7:00:03"	61.9	82.8	"UNR"	65	53

17	" 8:00:03"	62.2	84.3	"UNR"	66	46
18	" 9:00:03"	61.3	84.7	"UNR"	63	43
19	"10:00:03"	58.9	76.1	"UNR"	62	41
20	"11:00:03"	60.0	84.5	"UNR"	61	41
21	"12:00:03"	57.8	79.1	"UNR"	60	41
22	"13:00:03"	60.5	80.9	"UNR"	64	41
23	"14:00:03"	60.4	81.1	"UNR"	64	42
24	"15:00:03"	60.6	80.2	"UNR"	64	43
25	"16:00:03"	61.1	84.2	"UNR"	65	43
26	"17:00:03"	60.8	80.8	"UNR"	64	45
27	"18:00:03"	60.8	81.5	"UNR"	64	44
28	"19:00:03"	60.8	81.3	"UNR"	63	45
29	"20:00:03"	59.6	80.1	"UNR"	63	46
30	"21:00:03"	59.7	81.1	"UNR"	63	47
31	"22:00:03"	55.9	73.5	"UNR"	56	48
32	"23:00:03"	55.5	75.8	"UNR"	56	47
33	" 0:00:03"	61.0	75.6	"UNR"	66	45
34	" 1:00:03"	54.1	79.3	"UNR"	50	44

** AMPLITUDE DISTRIBUTION REPORT **

TOTAL SAMPLES = 1958400

dB	SAMPLES		% OF TOTAL
40	121579	******	6.21
41	92787	*****	4.74
42	81886	****	4.18
43	91767	*****	4.69
44	99250	*****	5.07
45	120302	******	6.14
46	110690	******	5.65
47	118114	******	6.03
48	106852	*****	5.46
49	101694	*****	5.19
50	92339	*****	4.72
51	77702	****	3.97
52	69812	****	3.56
53	69324	****	3.54
54	59383	***	3.03
55	68684	****	3.51
56	65605	***	3.35
57	52940	***	2.70
58	42050	**	2.15
59	31912	**	1.63
60	32458	**	1.66
61	28809	*	1.47
62	27511	*	1.40
63	27161	*	1.39
64	25520	*	1.30
65	28832	*	1.47
66	33172	**	1.69
67	21065	*	1.08
68	17813	*	.91
69	13579	*	.69
70	9618	+	.49
71	6041	+	.31

```
   72      3784 +                                                .19
   73      2432 +                                                .12
   74      1625 .                                                .08
   75      1047 .                                                .05
   76       912 .                                                .05
   77       659 .                                                .03
   78       566 .                                                .03
   79       401 .                                                .02
   80       296 .                                                .02
   81       180 .                                                .01
   82       139 .                                                .01
   83        75                                                  .00
   84        33                                                  .00

Ln( 0.0) =  84dB
Ln(10.0) =  62dB
Ln(50.0) =  49dB
Ln(99.9) =  40dB

            NO        80.0dB      90.0dB
          CUTOFF      CUTOFF      CUTOFF

Ldod      56.9dB      42.2dB      40.0dB
Losha     55.6dB      40.7dB      40.0dB
Leq(6)    54.6dB      40.4dB      40.0dB
```

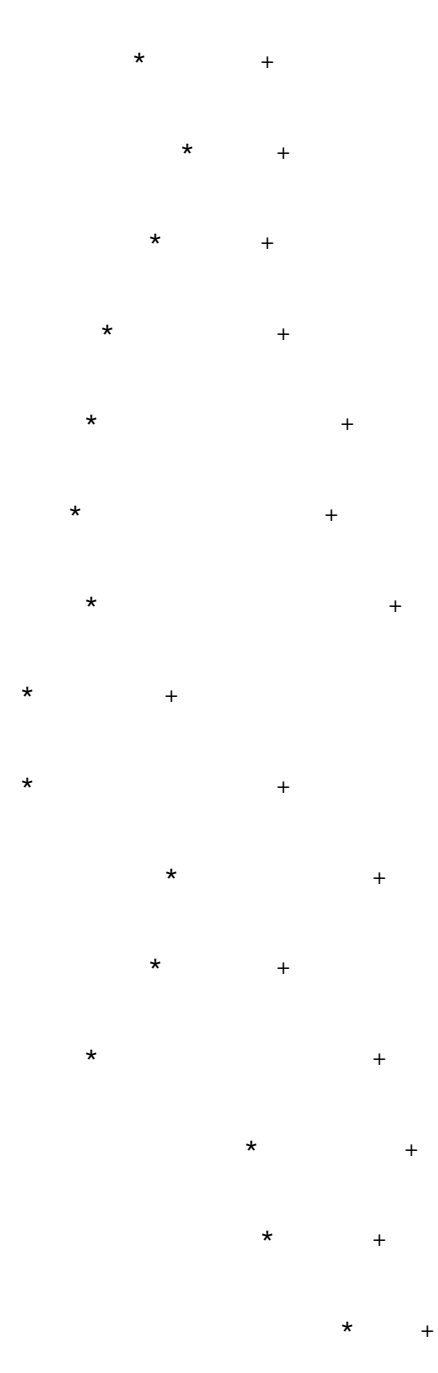
Long Term – Site 2

```
METROSONICS db-308 SN 2593 V2.3  3/87

CURRENT DATE:  7/24/03
CURRENT TIME: 20:53:31

_____________________________________

_____________________________________

_____________________________________

_____________________________________

CALIBRATED:   2/15/85  @  20:14:00

DISPLAY RANGE:  42.6dB TO 138.6dB

DOUBLING RATE:  3 dB

FILTER: A WGHT

RESPONSE:  SLOW

SCHEDULED RUN: OFF

   START DATE: 7/22/03
   START TIME:14:00:00
   LENGTH:    34:00:00


** OVERALL REPORT **

TEST STARTING DATE:   7/22/03
TEST STARTING TIME:  14:00:19
TEST LENGTH:     1DAYS 10:00:00

Lav    = 60.8dB
Lav  80= 42.6dB
Lav  90= 42.6dB
SEL    =111.5dB

Lmax = 80.3dB  ON  7/23/03 @  9:16:56
Lpk  <  117dB

TIME OVER 115dB  0D  0:00:00.00

DOSE CRITERION:  90dB

 8 HR DOSE ( 80dB CUTOFF)=  0.00%
 8 HR DOSE ( 90dB CUTOFF)=  0.00%
```

** TIME HISTORY REPORT **

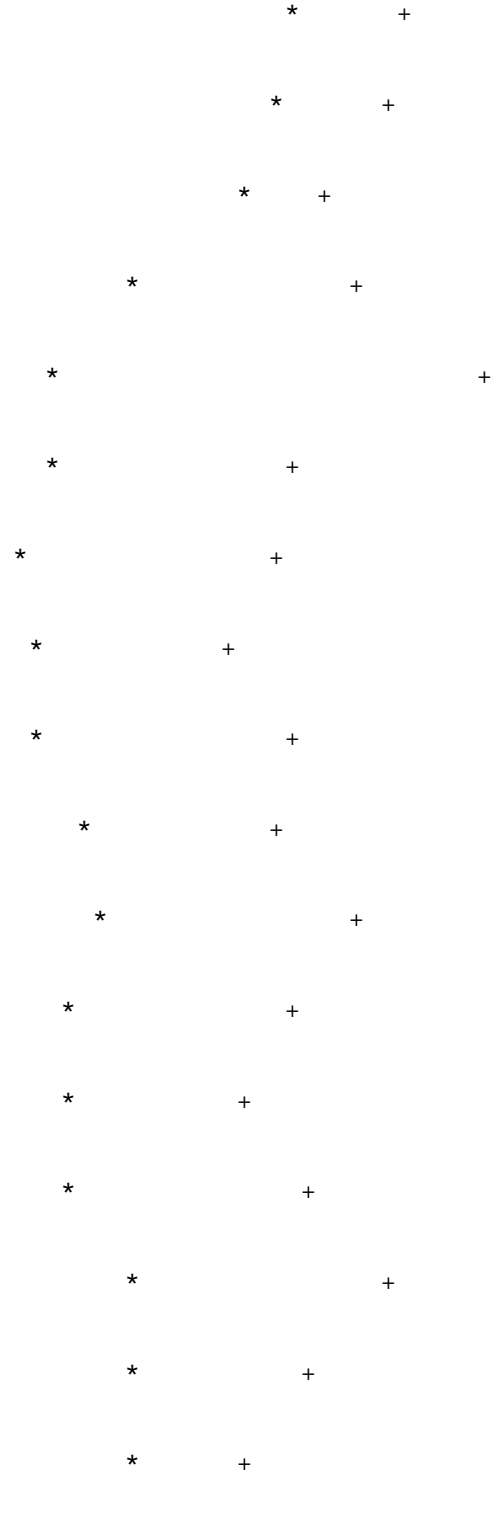
MODE: CONTINUOUS
PERIOD LENGTH: 1:00:00
TIME HISTORY CUTOFF: NONE
Ln(1): 10.0% Ln(2): 90.0%

INT# TAG#	START TIME	Lav ET	Lmax L1	Lpk L2
1	7/22/03	56.2	63.1	<117
0	14:00:19	1:00:00	58	53
2	7/22/03	58.2	64.7	<117
0	15:00:19	1:00:00	60	56
3	7/22/03	56.3	63.6	<117
0	16:00:19	1:00:00	58	53
4	7/22/03	53.5	64.4	<117
0	17:00:19	1:00:00	55	51
5	7/22/03	52.9	68.6	<117
0	18:00:19	1:00:00	54	51
6	7/22/03	52.1	67.3	<117
0	19:00:19	1:00:00	53	49
7	7/22/03	53.2	70.8	<117
0	20:00:19	1:00:00	55	49
8	7/22/03	49.5	57.4	<117
0	21:00:19	1:00:00	50	48
9	7/22/03	49.4	64.2	<117
0	22:00:19	1:00:00	50	47
10	7/22/03	57.6	69.6	<117
0	23:00:19	1:00:00	61	49
11	7/23/03	56.7	64.5	<117
0	0:00:19	1:00:00	59	51
12	7/23/03	53.2	70.4	<117
0	1:00:19	1:00:00	56	46
13	7/23/03	62.3	71.6	<117
0	2:00:19	1:00:00	65	53
14	7/23/03	63.8	70.0	<117
0	3:00:19	1:00:00	66	60
15	7/23/03	67.7	73.3	<117
0	4:00:19	1:00:00	70	64



INT#	START	Lav	Lmax	Lpk

TAG#	TIME	ET	L1	L2
16	7/23/03	68.8	75.4	<117
0	5:00:19	1:00:00	70	66
17	7/23/03	67.7	75.0	<117
0	6:00:19	1:00:00	69	65
18	7/23/03	66.5	71.3	<117
0	7:00:19	1:00:00	68	64
19	7/23/03	59.6	73.3	<117
0	8:00:19	1:00:00	62	56
20	7/23/03	55.1	80.3	<117
0	9:00:19	1:00:00	56	51
21	7/23/03	54.6	69.4	<117
0	10:00:19	1:00:00	55	51
22	7/23/03	53.0	68.1	<117
0	11:00:19	1:00:00	54	49
23	7/23/03	54.3	65.5	<117
0	12:00:19	1:00:00	56	51
24	7/23/03	53.6	69.1	<117
0	13:00:19	1:00:00	54	51
25	7/23/03	56.6	68.2	<117
0	14:00:19	1:00:00	59	52
26	7/23/03	57.7	73.2	<117
0	15:00:19	1:00:00	60	51
27	7/23/03	55.8	68.7	<117
0	16:00:19	1:00:00	58	50
28	7/23/03	55.5	66.0	<117
0	17:00:19	1:00:00	57	52
29	7/23/03	56.0	70.5	<117
0	18:00:19	1:00:00	57	52
30	7/23/03	59.6	75.1	<117
0	19:00:19	1:00:00	61	54
31	7/23/03	59.2	70.2	<117
0	20:00:19	1:00:00	61	56
32	7/23/03	59.7	65.8	<117
0	21:00:19	1:00:00	61	56
33	7/23/03	60.1	67.0	<117
0	22:00:19	1:00:00	62	56



```
 INT#   START    Lav    Lmax   Lpk
 TAG#   TIME      ET     L1    L2
_____________________________________

   34  7/23/03   58.2    65.6 <117                    *      +
    0 23:00:19  PARTIAL  61     53

** AMPLITUDE DISTRIBUTION REPORT **

TOTAL SAMPLES =    979200

   dB   SAMPLES                                                    % OF TOTAL
_____________________________________________________________________________
   43       111 .                                                        .01
   44       459 .                                                        .04
   45      1898 +                                                        .19
   46      3135 +                                                        .32
   47      8026 *                                                        .81
   48     26612 ***                                                     2.71
   49     43732 ****                                                    4.46
   50     51861 *****                                                   5.29
   51     70719 *******                                                 7.22
   52     81618 ********                                                8.33
   53     82244 ********                                                8.39
   54     69574 *******                                                 7.10
   55     62064 ******                                                  6.33
   56     70474 *******                                                 7.19
   57     66102 *******                                                 6.75
   58     59768 ******                                                  6.10
   59     47343 *****                                                   4.83
   60     33518 ***                                                     3.42
   61     29027 ***                                                     2.96
   62     19879 **                                                      2.03
   63     18441 **                                                      1.88
   64     17797 **                                                      1.81
   65     20604 **                                                      2.10
   66     24770 ***                                                     2.52
   67     21764 **                                                      2.22
   68     21864 **                                                      2.23
   69     13825 *                                                       1.41
   70      8768 *                                                        .89
   71      2740 +                                                        .27
   72       302 .                                                        .03
   73        77                                                          .00
   74        65                                                          .00
   75        10                                                          .00
   76         2                                                          .00
   77         2                                                          .00
   78         2                                                          .00
   79         2                                                          .00
   80         1                                                          .00

Ln( 0.0) =  80dB
Ln(10.0) =  65dB
Ln(50.0) =  55dB
Ln(99.9) =  45dB
```

	NO CUTOFF	80.0dB CUTOFF	90.0dB CUTOFF
Ldod	59.3dB	42.0dB	42.0dB
Losha	58.6dB	42.0dB	42.0dB
Leq(6)	58.2dB	42.0dB	42.0dB

Long Term – Site 3

```
METROSONICS db-308 SN 3178 V3.0  4/88
REPORT PRINTED  7/24/03 @ 21:00:56

DOUBLING RATE:   3dB    FILTER:  A WGHT
DOSE CRITERION: 90dB    RESPONSE:  SLOW
PRE-CALIBRATION TIME:   1/01/88 @  0:03:37
PRE-CALIBRATION RANGE:  41.2dB TO 141.2dB
NO POST-CALIBRATION

CALIBRATOR TYPE & SERIAL # : _________________________

CALIBRATOR CALIBRATION DATE: _________________________

TEST BEGAN   7/22/03 @ 14:00:03
TEST LENGTH:     1DAYS 10:00:00
TEST ENDED   7/24/03 @  0:00:03
TEST INTERRUPTIONS:   1

Lav = 67.8dB   Lav ( 80)= 46.1dB
SEL =118.5dB   Lav ( 90)= 42.0dB
Lmax = 91.9dB  ON  7/23/03 @ 17:28:44
 Lpk =115.5dB  ON  7/23/03 @ 17:28:43
TIME OVER 115dB  0D  0:00:00.00

 8 HR DOSE ( 80dB CUTOFF)=  0.01%
 8 HR DOSE ( 90dB CUTOFF)=  0.00%

"TIME HISTORY REPORT

"# OF PERIODS:   34   MODE: CONTINUOUS
"PERIOD LENGTH:  1:00:00
"TIME HISTORY CUTOFF: NONE
"Ln(1): 10.0%  Ln(2): 90.0%

"DATE:  7/22/03  TAG #:    0

"INT"   "TIME"   "Lav" "Lmx" "Lpk" "L1" "L2"
    1 "14:00:03"  65.0  79.8 110.6   67   60
    2 "15:00:03"  65.8  80.7 113.9   68   61
    3 "16:00:03"  65.0  78.8 111.5   67   60
    4 "17:00:03"  64.7  76.6 "UNR"   67   60
    5 "18:00:03"  64.4  76.2 "UNR"   67   59
    6 "19:00:03"  63.6  80.4 "UNR"   66   58
    7 "20:00:03"  64.1  75.4 "UNR"   66   59
    8 "21:00:03"  64.2  77.3 "UNR"   67   59
    9 "22:00:03"  63.0  73.9 "UNR"   66   57
   10 "23:00:03"  65.2  78.2 "UNR"   68   59
   11 " 0:00:03"  65.3  73.4 "UNR"   68   59
   12 " 1:00:03"  64.8  81.2 "UNR"   68   58
   13 " 2:00:03"  66.4  74.4 "UNR"   69   59
   14 " 3:00:03"  68.1  75.6 "UNR"   70   63
   15 " 4:00:03"  70.6  76.4 "UNR"   72   67
   16 " 5:00:03"  71.9  77.8 "UNR"   73   69
   17 " 6:00:03"  72.2  79.5 "UNR"   73   69
```

18	" 7:00:03"	71.5	78.5	"UNR"	73	69
19	" 8:00:03"	68.6	76.2	"UNR"	70	64
20	" 9:00:03"	67.4	74.6	"UNR"	69	63
21	"10:00:03"	68.1	75.8	"UNR"	70	63
22	"11:00:03"	67.3	78.7	"UNR"	69	63
23	"12:00:03"	69.0	78.7	"UNR"	71	65
24	"13:00:03"	68.5	77.6	"UNR"	70	64
25	"14:00:03"	69.7	77.6	"UNR"	71	66
26	"15:00:03"	69.3	78.4	"UNR"	71	65
27	"16:00:03"	67.7	78.1	"UNR"	70	63
28	"17:00:03"	67.5	91.9	115.5	69	63
29	"18:00:03"	67.3	76.5	"UNR"	69	63
30	"19:00:03"	67.7	77.3	"UNR"	69	64
31	"20:00:03"	68.2	85.2	"UNR"	70	64
32	"21:00:03"	67.8	83.5	"UNR"	70	64
33	"22:00:03"	67.1	74.2	"UNR"	69	62
34	"23:00:03"	65.3	74.6	"UNR"	68	60

** AMPLITUDE DISTRIBUTION REPORT **

TOTAL SAMPLES = 1958400

dB	SAMPLES		% OF TOTAL
50	45		.00
51	110	.	.01
52	305	.	.02
53	599	.	.03
54	1788	.	.09
55	4884	+	.25
56	8024	+	.41
57	16125	*	.82
58	29345	**	1.50
59	46249	**	2.36
60	67128	***	3.43
61	92432	*****	4.72
62	119834	******	6.12
63	144386	*******	7.37
64	162353	********	8.29
65	184270	*********	9.41
66	192285	**********	9.82
67	202576	**********	10.34
68	185116	*********	9.45
69	157684	********	8.05
70	128486	*******	6.56
71	97568	*****	4.98
72	66829	***	3.41
73	34739	**	1.77
74	11005	*	.56
75	2425	+	.12
76	983	.	.05
77	370	.	.02
78	172	.	.01
79	68		.00
80	47		.00
81	22		.00
82	22		.00

83	35	.00
84	29	.00
85	17	.00
86	5	.00
87	6	.00
88	5	.00
89	6	.00
90	8	.00
91	15	.00

Ln(0.0) = 91dB
Ln(10.0) = 71dB
Ln(50.0) = 66dB
Ln(99.9) = 54dB

	NO CUTOFF	80.0dB CUTOFF	90.0dB CUTOFF
Ldod	67.0dB	42.1dB	41.3dB
Losha	66.8dB	41.3dB	41.0dB
Leq(6)	66.6dB	41.1dB	41.0dB

Long Term – Site 4

```
METROSONICS db-308 SN 3160 V3.0  4/88
REPORT PRINTED  7/24/03 @ 20:53:58

DOUBLING RATE:   3dB    FILTER:  A WGHT
DOSE CRITERION: 90dB    RESPONSE:  SLOW
PRE-CALIBRATION TIME:   4/08/03 @ 18:50:27
PRE-CALIBRATION RANGE:  39.7dB TO 139.7dB
NO POST-CALIBRATION

CALIBRATOR TYPE & SERIAL # : _________________________

CALIBRATOR CALIBRATION DATE: _________________________

TEST BEGAN   7/22/03 @ 14:00:03
TEST LENGTH:     1DAYS 10:00:00
TEST ENDED   7/24/03 @  0:00:03
TEST INTERRUPTIONS:   1

Lav = 70.7dB   Lav ( 80)= 59.7dB
SEL =121.4dB   Lav ( 90)= 56.9dB
Lmax =103.6dB  ON  7/23/03 @ 20:12:25
 Lpk =128.3dB  ON  7/23/03 @ 20:12:25
TIME OVER 115dB  0D  0:00:00.00

 8 HR DOSE ( 80dB CUTOFF)=  0.38%
 8 HR DOSE ( 90dB CUTOFF)=  0.20%

"TIME HISTORY REPORT

"# OF PERIODS:   34   MODE: CONTINUOUS
"PERIOD LENGTH:  1:00:00
"TIME HISTORY CUTOFF: NONE
"Ln(1): 10.0%  Ln(2): 90.0%

"DATE:  7/22/03  TAG #:    0
```

"INT"	"TIME"	"Lav"	"Lmx"	"Lpk"	"L1"	"L2"
1	"14:00:03"	70.3	85.8	116.9	73	62
2	"15:00:03"	70.2	88.3	111.7	73	63
3	"16:00:03"	70.2	83.8	112.4	73	63
4	"17:00:03"	70.2	89.3	109.1	73	62
5	"18:00:03"	69.4	84.7	111.7	72	61
6	"19:00:03"	69.0	86.3	115.8	72	60
7	"20:00:03"	69.4	87.6	110.9	72	60
8	"21:00:03"	68.3	81.6	"UNR"	72	60
9	"22:00:03"	66.8	84.7	110.9	70	58
10	"23:00:03"	67.2	82.3	"UNR"	70	59
11	" 0:00:03"	66.8	80.3	"UNR"	70	57
12	" 1:00:03"	66.2	82.8	"UNR"	70	56
13	" 2:00:03"	66.4	77.1	"UNR"	70	58
14	" 3:00:03"	68.6	80.2	"UNR"	72	61
15	" 4:00:03"	70.8	82.3	"UNR"	73	65
16	" 5:00:03"	72.4	83.9	"UNR"	74	68

17	" 6:00:03"	72.8	85.0	"UNR"	75	69
18	" 7:00:03"	73.1	82.5	108.5	75	69
19	" 8:00:03"	72.3	83.4	108.0	74	67
20	" 9:00:03"	71.5	91.3	109.5	74	65
21	"10:00:03"	71.4	84.7	109.5	74	65
22	"11:00:03"	71.2	86.6	"UNR"	74	65
23	"12:00:03"	71.8	85.2	"UNR"	74	66
24	"13:00:03"	72.0	87.0	111.7	74	66
25	"14:00:03"	72.4	85.3	109.1	75	67
26	"15:00:03"	72.5	83.5	"UNR"	75	67
27	"16:00:03"	71.3	82.0	"UNR"	74	65
28	"17:00:03"	72.2	97.2	122.1	74	65
29	"18:00:03"	71.2	86.3	108.0	74	64
30	"19:00:03"	70.8	82.1	"UNR"	73	65
31	"20:00:03"	73.1	103.6	128.3	73	64
32	"21:00:03"	71.4	98.6	121.3	72	63
33	"22:00:03"	68.9	80.4	"UNR"	72	62
34	"23:00:03"	67.7	80.1	"UNR"	71	60

** AMPLITUDE DISTRIBUTION REPORT **

TOTAL SAMPLES = 1958400

dB	SAMPLES		% OF TOTAL
49	79		.00
50	525	.	.03
51	854	.	.04
52	1058	.	.05
53	1843	.	.09
54	2821	+	.14
55	5156	+	.26
56	7769	+	.40
57	13003	*	.66
58	20725	*	1.06
59	29482	**	1.51
60	43257	**	2.21
61	54381	***	2.78
62	72599	****	3.71
63	84196	****	4.30
64	96779	*****	4.94
65	107292	*****	5.48
66	124405	******	6.35
67	141148	*******	7.21
68	159369	********	8.14
69	174122	*********	8.89
70	183348	*********	9.36
71	175793	*********	8.98
72	160192	********	8.18
73	122178	******	6.24
74	80633	****	4.12
75	45287	**	2.31
76	24484	*	1.25
77	11596	*	.59
78	5657	+	.29
79	3404	+	.17
80	1905	+	.10

81	1068	.	.05
82	646	.	.03
83	466	.	.02
84	273	.	.01
85	180	.	.01
86	122	.	.01
87	62		.00
88	31		.00
89	27		.00
90	22		.00
91	21		.00
92	14		.00
93	14		.00
94	14		.00
95	17		.00
96	22		.00
97	19		.00
98	16		.00
99	4		.00
100	5		.00

dB	SAMPLES	% OF TOTAL
101	5	.00
102	5	.00
103	7	.00

Ln(0.0) = 103dB
Ln(10.0) = 73dB
Ln(50.0) = 69dB
Ln(99.9) = 52dB

	NO CUTOFF	80.0dB CUTOFF	90.0dB CUTOFF
Ldod	69.7dB	49.4dB	42.7dB
Losha	69.3dB	40.2dB	40.6dB
Leq(6)	69.1dB	41.9dB	39.5dB

Long Term – Site 5

```
METROSONICS db-308 SN 3178 V3.0  4/88
REPORT PRINTED  4/27/05 @  9:41:19

DOUBLING RATE:   3dB    FILTER:  A WGHT
DOSE CRITERION: 90dB    RESPONSE:  SLOW
PRE-CALIBRATION TIME:  10/07/04 @ 13:49:16
PRE-CALIBRATION RANGE:  41.1dB TO 141.1dB
NO POST-CALIBRATION

CALIBRATOR TYPE & SERIAL # : _________________________

CALIBRATOR CALIBRATION DATE: _________________________

TEST BEGAN   4/19/05 @  0:00:03
TEST LENGTH:     2DAYS  0:00:00
TEST ENDED   4/21/05 @  0:00:03
TEST INTERRUPTIONS:   1

Lav = 62.5dB   Lav ( 80)= 61.9dB
SEL =114.7dB   Lav ( 90)= 61.1dB
Lmax =102.3dB  ON  4/19/05 @ 12:37:20
 Lpk =142.4dB  ON  4/19/05 @ 12:37:20
TIME OVER 115dB  0D  0:00:00.00

 8 HR DOSE ( 80dB CUTOFF)=  0.90%
 8 HR DOSE ( 90dB CUTOFF)=  0.76%

"TIME HISTORY REPORT

"# OF PERIODS:   48   MODE: CONTINUOUS
"PERIOD LENGTH:  1:00:00
"TIME HISTORY CUTOFF: NONE
"Ln(1): 10.0%  Ln(2): 90.0%

"DATE:  4/19/05  TAG #:    0

"INT"   "TIME"   "Lav" "Lmx" "Lpk" "L1" "L2"
    1 " 0:00:03"  49.8  60.8 129.0   51   47
    2 " 1:00:03"  47.9  57.1 "UNR"   50   45
    3 " 2:00:03"  49.0  58.1 "UNR"   51   45
    4 " 3:00:03"  51.9  61.1 "UNR"   53   49
    5 " 4:00:03"  54.1  61.3 "UNR"   55   51
    6 " 5:00:03"  54.5  58.4 "UNR"   55   53
    7 " 6:00:03"  56.7  66.3 "UNR"   57   55
    8 " 7:00:03"  57.3  67.6 114.5   58   55
    9 " 8:00:03"  55.4  67.9 "UNR"   57   53
   10 " 9:00:03"  54.2  62.9 109.4   55   51
   11 "10:00:03"  54.6  69.5 134.4   56   51
   12 "11:00:03"  53.5  66.9 133.0   55   50
   13 "12:00:03"  77.9 102.3 142.4   59   49
   14 "13:00:03"  70.9 100.3 140.6   57   50
   15 "14:00:03"  54.2  68.6 113.1   56   49
   16 "15:00:03"  54.1  66.3 110.9   56   50
```

17	"16:00:03"	53.1	68.5	"UNR"	55	49
18	"17:00:03"	53.0	68.7	110.5	54	50
19	"18:00:03"	50.2	58.3	"UNR"	52	47
20	"19:00:03"	50.6	68.4	"UNR"	51	47
21	"20:00:03"	46.7	59.2	"UNR"	49	41
22	"21:00:03"	49.0	70.8	"UNR"	46	42
23	"22:00:03"	44.3	65.8	"UNR"	44	42
24	"23:00:03"	44.6	58.7	"UNR"	45	42
25	" 0:00:03"	52.0	61.0	"UNR"	55	44
26	" 1:00:03"	55.2	62.5	"UNR"	57	51
27	" 2:00:03"	55.3	67.7	"UNR"	57	51
28	" 3:00:03"	57.8	67.8	"UNR"	59	55
29	" 4:00:03"	59.8	67.0	"UNR"	61	57
30	" 5:00:03"	60.4	67.0	"UNR"	62	57
31	" 6:00:03"	58.8	65.3	"UNR"	60	57
32	" 7:00:03"	53.2	75.8	111.9	55	47
33	" 8:00:03"	47.5	65.0	"UNR"	48	44
34	" 9:00:03"	48.7	67.9	"UNR"	49	44
35	"10:00:03"	52.1	76.5	"UNR"	48	42
36	"11:00:03"	47.9	68.9	"UNR"	49	43
37	"12:00:03"	53.2	76.4	"UNR"	48	42
38	"13:00:03"	45.8	60.0	"UNR"	47	43
39	"14:00:03"	61.7	86.0	"UNR"	55	43
40	"15:00:03"	54.4	77.4	"UNR"	52	43
41	"16:00:03"	49.6	72.2	"UNR"	49	41
42	"17:00:03"	46.0	64.1	"UNR"	47	41
43	"18:00:03"	49.5	63.7	"UNR"	51	44
44	"19:00:03"	51.9	66.8	"UNR"	52	49
45	"20:00:03"	50.0	56.3	"UNR"	51	48
46	"21:00:03"	49.7	71.3	"UNR"	50	47
47	"22:00:03"	47.2	66.9	"UNR"	48	43
48	"23:00:03"	43.5	64.0	"UNR"	44	41

** AMPLITUDE DISTRIBUTION REPORT **

TOTAL SAMPLES = 2764800

dB	SAMPLES		% OF TOTAL
41	58330	**	2.11
42	128703	*****	4.66
43	173553	******	6.28
44	169780	******	6.14
45	148847	*****	5.38
46	131014	*****	4.74
47	150677	*****	5.45
48	154388	******	5.58
49	182618	*******	6.61
50	186454	*******	6.74
51	178885	******	6.47
52	173479	******	6.27
53	182028	*******	6.58
54	155204	******	5.61
55	144656	*****	5.23
56	111780	****	4.04
57	110206	****	3.99
58	76334	***	2.76

```
   59     53651 **                                                  1.94
   60     42943 **                                                  1.55
   61     24089 *                                                    .87
   62      9513 +                                                    .34
   63      4794 +                                                    .17
   64      2078 .                                                    .08
   65      1361 .                                                    .05
   66       993 .                                                    .04
   67       856 .                                                    .03
   68       673 .                                                    .02
   69       487 .                                                    .02
   70       552 .                                                    .02
   71       393 .                                                    .01
   72       420 .                                                    .02
   73       395 .                                                    .01
   74       408 .                                                    .01
   75       382 .                                                    .01
   76       308 .                                                    .01
   77       279 .                                                    .01
   78       225 .                                                    .01
   79       218 .                                                    .01
   80       215 .                                                    .01
   81       166 .                                                    .01
   82       175 .                                                    .01
   83       175 .                                                    .01
   84       185 .                                                    .01
   85       178 .                                                    .01
   86       164 .                                                    .01
   87       158 .                                                    .01
   88       149 .                                                    .01
   89       151 .                                                    .01
   90       151 .                                                    .01
   91       154 .                                                    .01
   92       150 .                                                    .01
   93       143 .                                                    .01
   94       140 .                                                    .01
   95       111                                                      .00
   96        90                                                      .00
   97        82                                                      .00
   98        60                                                      .00
   99        32                                                      .00
  100        10                                                      .00
  101         6                                                      .00
  102         1                                                      .00

Ln( 0.0) = 102dB
Ln(10.0) =  57dB
Ln(50.0) =  50dB
Ln(99.9) =  41dB

             NO        80.0dB      90.0dB
           CUTOFF      CUTOFF      CUTOFF

Ldod       55.8dB      50.7dB      49.2dB
Losha      53.3dB      45.7dB      44.6dB
Leq(6)     52.3dB      43.1dB      42.5dB
```

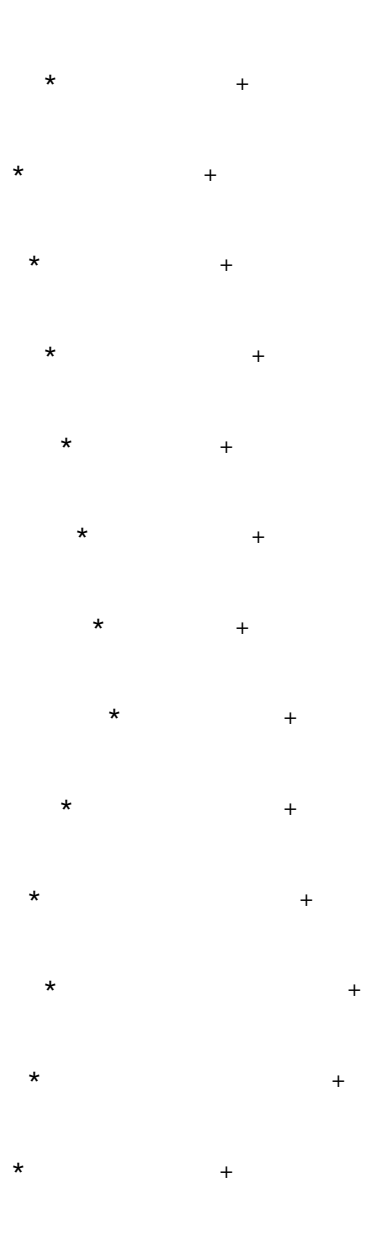
Long Term – Site 6

```
METROSONICS db-308 SN 2668 V2.3  3/87

CURRENT DATE:  3/07/05
CURRENT TIME: 14:32:52

_____________________________________

_____________________________________

_____________________________________

_____________________________________

CALIBRATED:   3/01/05  @  14:11:39

DISPLAY RANGE:  42.8dB TO 138.8dB

DOUBLING RATE:  3 dB

FILTER: A WGHT

RESPONSE:  SLOW

SCHEDULED RUN: OFF

   START DATE: 3/02/05
   START TIME: 0:00:00
   LENGTH:    72:00:00


** OVERALL REPORT **

TEST STARTING DATE:   3/02/05
TEST STARTING TIME:   0:00:19
TEST LENGTH:     3DAYS  0:00:00

Lav    = 64.5dB
Lav  80= 52.5dB
Lav  90= 45.3dB
SEL    =118.5dB

Lmax = 94.9dB  ON  3/03/05 @ 17:16:36
Lpk  =  118dB  ON  3/03/05 @ 17:19:37

TIME OVER 115dB  0D  0:00:00.00

DOSE CRITERION:  90dB

 8 HR DOSE ( 80dB CUTOFF)=  0.15%
 8 HR DOSE ( 90dB CUTOFF)=  0.02%
```

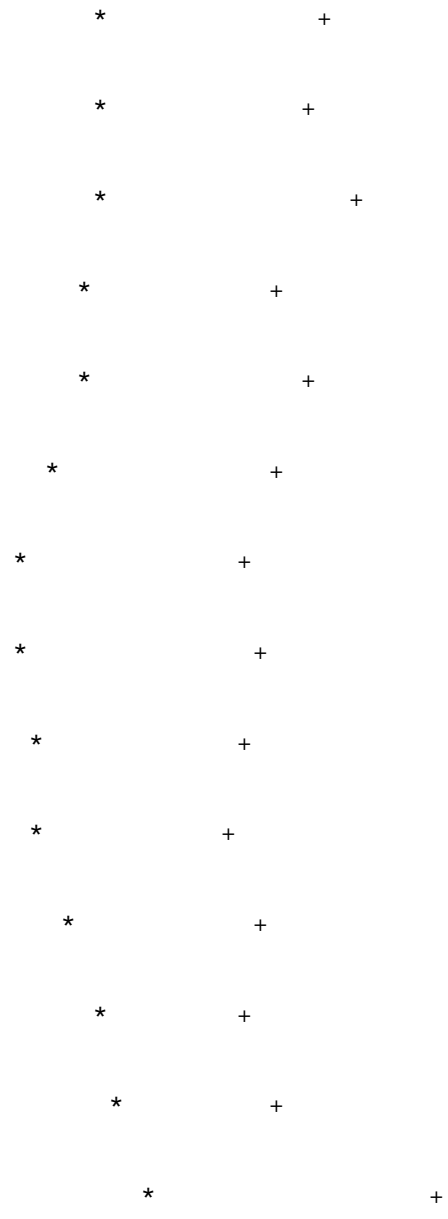
** TIME HISTORY REPORT **

MODE: CONTINUOUS
PERIOD LENGTH: 1:00:00
TIME HISTORY CUTOFF: NONE
Ln(1): 10.0% Ln(2): 90.0%

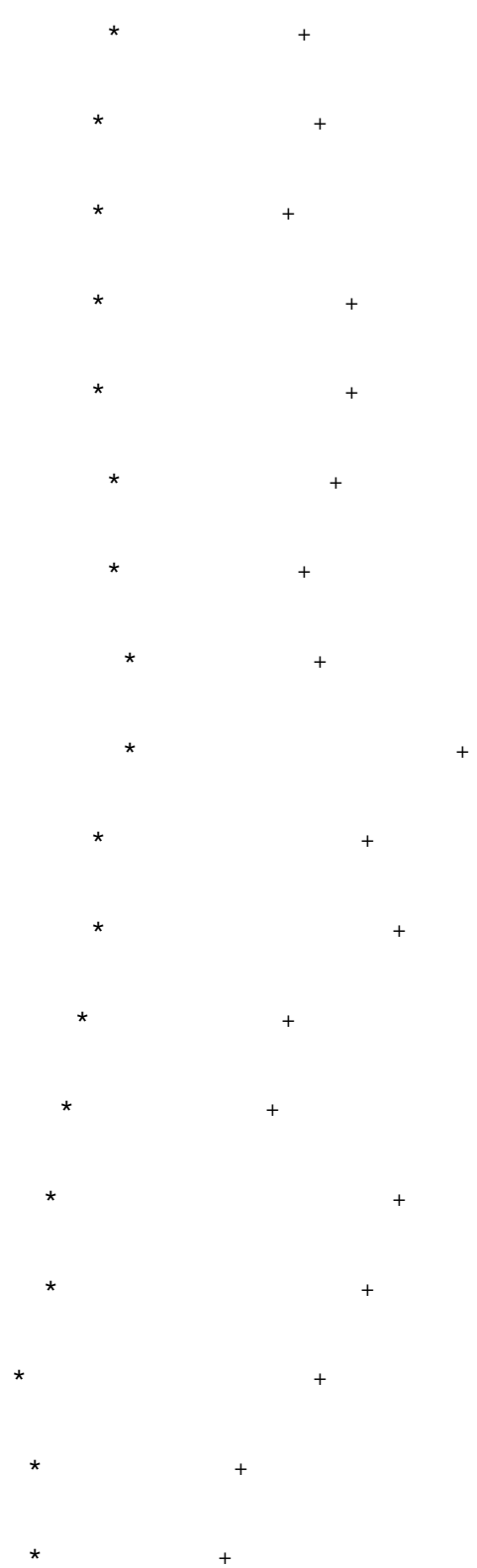
INT# TAG#	START TIME	Lav ET	Lmax L1	Lpk L2
1	3/02/05	63.3	79.1	<117
0	0:00:19	1:00:00	65	58
2	3/02/05	61.6	77.0	<117
0	1:00:19	1:00:00	64	56
3	3/02/05	62.1	77.8	<117
0	2:00:19	1:00:00	64	56
4	3/02/05	63.6	80.9	<117
0	3:00:19	1:00:00	65	58
5	3/02/05	65.6	77.5	<117
0	4:00:19	1:00:00	67	62
6	3/02/05	66.5	80.4	<117
0	5:00:19	1:00:00	67	64
7	3/02/05	67.8	79.2	<117
0	6:00:19	1:00:00	69	65
8	3/02/05	68.3	82.4	<117
0	7:00:19	1:00:00	71	64
9	3/02/05	64.9	83.3	<117
0	8:00:19	1:00:00	67	56
10	3/02/05	62.8	83.6	<117
0	9:00:19	1:00:00	64	55
11	3/02/05	63.8	88.6	<117
0	10:00:19	1:00:00	65	56
12	3/02/05	62.4	87.3	<117
0	11:00:19	1:00:00	63	54
13	3/02/05	60.7	78.1	<117
0	12:00:19	1:00:00	63	52
14	3/02/05	62.3	88.4	<117
0	13:00:19	1:00:00	64	51
15	3/02/05	62.4	82.9	<117
0	14:00:19	1:00:00	66	53



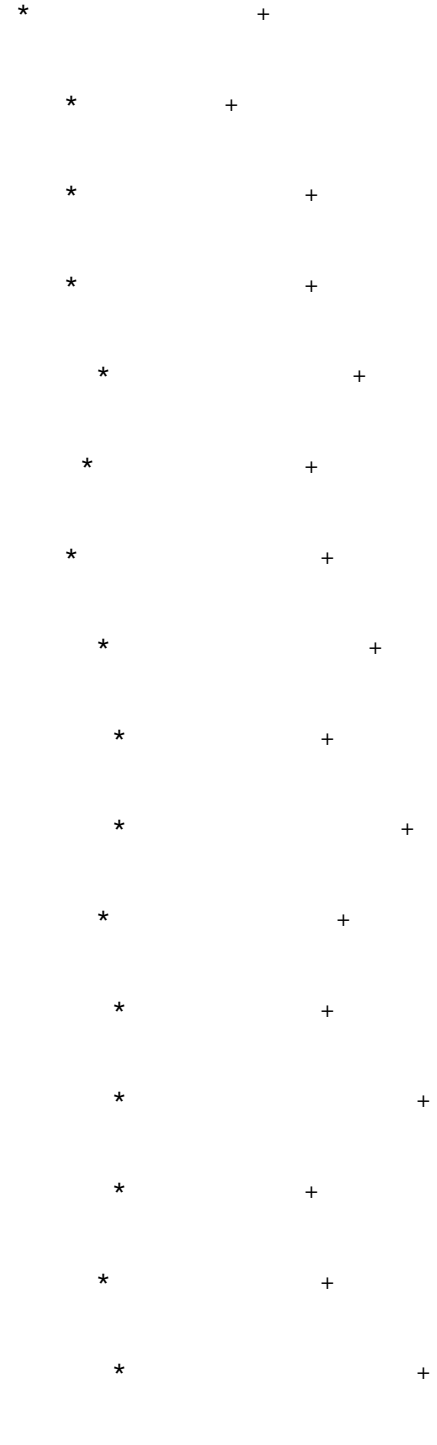
INT# TAG#	START TIME	Lav ET	Lmax L1	Lpk L2
16	3/02/05	63.2	83.8	<117
0	15:00:19	1:00:00	67	53
17	3/02/05	63.4	82.4	<117
0	16:00:19	1:00:00	66	55
18	3/02/05	64.9	82.5	<117
0	17:00:19	1:00:00	68	59
19	3/02/05	64.5	81.0	<117
0	18:00:19	1:00:00	67	60
20	3/02/05	64.6	85.4	<117
0	19:00:19	1:00:00	66	60
21	3/02/05	63.4	79.5	<117
0	20:00:19	1:00:00	65	60
22	3/02/05	63.2	82.2	<117
0	21:00:19	1:00:00	65	59
23	3/02/05	61.4	79.2	<117
0	22:00:19	1:00:00	62	57
24	3/02/05	58.2	76.1	<117
0	23:00:19	1:00:00	58	55
25	3/03/05	58.2	78.4	<117
0	0:00:19	1:00:00	59	53
26	3/03/05	60.2	76.6	<117
0	1:00:19	1:00:00	63	54
27	3/03/05	60.1	75.7	<117
0	2:00:19	1:00:00	62	54
28	3/03/05	62.7	77.5	<117
0	3:00:19	1:00:00	65	57
29	3/03/05	65.2	76.0	<117
0	4:00:19	1:00:00	67	61
30	3/03/05	66.5	79.5	<117
0	5:00:19	1:00:00	68	63
31	3/03/05	68.7	92.3	<117
0	6:00:19	1:00:00	69	66
32	3/03/05	68.0	81.0	<117
0	7:00:19	1:00:00	69	65
33	3/03/05	66.8	88.4	<117
0	8:00:19	1:00:00	68	63



INT# TAG#	START TIME	Lav ET	Lmax L1	Lpk L2
34 0	3/03/05 9:00:19	66.2 1:00:00	81.9 67	<117 63
35 0	3/03/05 10:00:19	65.6 1:00:00	83.0 67	<117 62
36 0	3/03/05 11:00:19	65.0 1:00:00	80.9 67	<117 60
37 0	3/03/05 12:00:19	64.8 1:00:00	84.8 66	<117 60
38 0	3/03/05 13:00:19	65.3 1:00:00	84.8 66	<117 61
39 0	3/03/05 14:00:19	66.3 1:00:00	83.9 68	<117 62
40 0	3/03/05 15:00:19	66.9 1:00:00	81.5 68	<117 62
41 0	3/03/05 16:00:19	67.3 1:00:00	83.0 69	<117 63
42 0	3/03/05 17:00:19	67.6 1:00:00	94.9 68	118 61
43 0	3/03/05 18:00:19	65.1 1:00:00	87.0 67	<117 59
44 0	3/03/05 19:00:19	65.3 1:00:00	89.8 67	<117 59
45 0	3/03/05 20:00:19	64.0 1:00:00	80.7 65	<117 60
46 0	3/03/05 21:00:19	62.0 1:00:00	78.9 64	<117 53
47 0	3/03/05 22:00:19	61.7 1:00:00	89.2 60	<117 53
48 0	3/03/05 23:00:19	61.4 1:00:00	86.9 60	<117 53
49 0	3/04/05 0:00:19	58.7 1:00:00	83.4 60	118 52
50 0	3/04/05 1:00:19	59.6 1:00:00	75.9 61	<117 53
51	3/04/05	60.2	74.7	<117



```
   0  2:00:19  1:00:00  62     54

 INT#   START    Lav    Lmax   Lpk
 TAG#   TIME      ET     L1    L2
 ------------------------------------

  52  3/04/05   58.4    78.2 <117
   0  3:00:19  1:00:00  59     51

  53  3/04/05   62.8    75.7 <117
   0  4:00:19  1:00:00  64     58

  54  3/04/05   62.8    81.1 <117
   0  5:00:19  1:00:00  63     59

  55  3/04/05   62.9    81.7 <117
   0  6:00:19  1:00:00  63     57

  56  3/04/05   65.5    84.8 <117
   0  7:00:19  1:00:00  68     60

  57  3/04/05   63.5    82.1 <117
   0  8:00:19  1:00:00  66     55

  58  3/04/05   62.3    82.7 <117
   0  9:00:19  1:00:00  63     56

  59  3/04/05   64.9    86.2 <117
   0 10:00:19  1:00:00  65     60

  60  3/04/05   66.1    83.0 <117
   0 11:00:19  1:00:00  67     62

  61  3/04/05   66.2    89.1 <117
   0 12:00:19  1:00:00  67     61

  62  3/04/05   65.4    83.9 <117
   0 13:00:19  1:00:00  66     61

  63  3/04/05   65.9    82.5 <117
   0 14:00:19  1:00:00  68     61

  64  3/04/05   66.4    90.6 <117
   0 15:00:19  1:00:00  69     60

  65  3/04/05   65.7    81.3 <117
   0 16:00:19  1:00:00  68     61

  66  3/04/05   65.3    82.7 <117
   0 17:00:19  1:00:00  67     61

  67  3/04/05   66.1    90.2 <117
   0 18:00:19  1:00:00  68     60

  68  3/04/05   63.5    78.9 <117
   0 19:00:19  1:00:00  66     59
```



```
   69  3/04/05   63.4    88.1 <117                    *                  +
    0 20:00:19  1:00:00  64     57

 INT#   START    Lav    Lmax   Lpk
 TAG#   TIME      ET     L1    L2
_____________________________________

   70  3/04/05   62.1    84.5 <117                  *                +
    0 21:00:19  1:00:00  62     57

   71  3/04/05   61.8    89.7 <117                 *                     +
    0 22:00:19  1:00:00  60     55

   72  3/04/05   59.8    82.6 <117                *                 +
    0 23:00:19  PARTIAL  60     53

** AMPLITUDE DISTRIBUTION REPORT **

TOTAL SAMPLES =   2073600

   dB   SAMPLES                                                    % OF TOTAL
_____________________________________________________________________________
   44        12                                                          .00
   45        76                                                          .00
   46        96                                                          .00
   47       293 .                                                        .01
   48       678 .                                                        .03
   49      1638 .                                                        .07
   50      4555 +                                                        .21
   51     11282 *                                                        .54
   52     23611 *                                                       1.13
   53     41330 **                                                      1.99
   54     59861 ***                                                     2.88
   55     67641 ***                                                     3.26
   56     96373 *****                                                   4.64
   57    114578 ******                                                  5.52
   58    112911 *****                                                   5.44
   59    135339 *******                                                 6.52
   60    169454 ********                                                8.17
   61    201396 **********                                              9.71
   62    189629 *********                                               9.14
   63    190046 *********                                               9.16
   64    172759 ********                                                8.33
   65    139559 *******                                                 6.73
   66    103313 *****                                                   4.98
   67     78081 ****                                                    3.76
   68     50641 **                                                      2.44
   69     31962 **                                                      1.54
   70     23513 *                                                       1.13
   71     18018 *                                                        .86
   72     12574 *                                                        .60
   73      9113 +                                                        .43
   74      4761 +                                                        .22
   75      2960 +                                                        .14
   76      1750 .                                                        .08
   77      1237 .                                                        .05
   78       710 .                                                        .03
```

```
   79       462 .                                                    .02
   80       413 .                                                    .01
   81       310 .                                                    .01
   82       223 .                                                    .01
   83       101                                                      .00
   84        80                                                      .00
   85        60                                                      .00
   86        52                                                      .00
   87        36                                                      .00
   88        40                                                      .00
   89        32                                                      .00
   90        13                                                      .00
   91         9                                                      .00
   92        10                                                      .00
   93         4                                                      .00
   94         5                                                      .00

Ln( 0.0) =  94dB
Ln(10.0) =  67dB
Ln(50.0) =  61dB
Ln(99.9) =  49dB

             NO        80.0dB      90.0dB
           CUTOFF      CUTOFF      CUTOFF

Ldod       63.3dB      45.6dB      42.6dB
Losha      62.8dB      43.3dB      42.1dB
Leq(6)     62.6dB      42.6dB      42.0dB
```

Long Term – Loading Dock

```
METROSONICS db-308 SN 2673 V2.3  3/87

CURRENT DATE:  3/07/05
CURRENT TIME: 14:05:47

_____________________________________

_____________________________________

_____________________________________

_____________________________________

CALIBRATED:   2/27/05  @  23:52:44

DISPLAY RANGE:  42.7dB TO 138.7dB

DOUBLING RATE:  3 dB

FILTER: A WGHT

RESPONSE:  SLOW

SCHEDULED RUN: OFF

   START DATE: 3/03/05
   START TIME: 0:00:00
   LENGTH:    24:00:00


** OVERALL REPORT **

TEST STARTING DATE:   3/03/05
TEST STARTING TIME:   0:00:19
TEST LENGTH:     1DAYS  0:00:00

Lav    = 60.5dB
Lav  80= 57.3dB
Lav  90= 48.4dB
SEL    =109.7dB

Lmax = 93.3dB  ON  3/03/05 @ 23:58:51
Lpk  =  129dB  ON  3/03/05 @ 23:59:14

TIME OVER 115dB  0D  0:00:00.00

DOSE CRITERION:  90dB

 8 HR DOSE ( 80dB CUTOFF)=  0.15%
 8 HR DOSE ( 90dB CUTOFF)=  0.01%
```

** TIME HISTORY REPORT **

MODE: CONTINUOUS
PERIOD LENGTH: 1:00:00
TIME HISTORY CUTOFF: NONE
Ln(1): 10.0% Ln(2): 90.0%

INT# TAG#	START TIME	Lav ET	Lmax L1	Lpk L2
1	3/03/05	57.3	72.8	<117
0	0:00:19	1:00:00	61	53
2	3/03/05	53.7	73.5	<117
0	1:00:19	1:00:00	53	51
3	3/03/05	55.6	84.0	<117
0	2:00:19	1:00:00	54	50
4	3/03/05	56.1	74.6	<117
0	3:00:19	1:00:00	58	52
5	3/03/05	58.8	74.0	<117
0	4:00:19	1:00:00	59	57
6	3/03/05	54.9	69.6	<117
0	5:00:19	1:00:00	54	52
7	3/03/05	59.2	73.7	<117
0	6:00:19	1:00:00	61	54
8	3/03/05	61.8	82.6	<117
0	7:00:19	1:00:00	61	54
9	3/03/05	55.9	81.9	<117
0	8:00:19	1:00:00	56	48
10	3/03/05	51.1	69.0	<117
0	9:00:19	1:00:00	52	46
11	3/03/05	53.3	75.3	<117
0	10:00:19	1:00:00	55	46
12	3/03/05	56.8	72.6	<117
0	11:00:19	1:00:00	60	48
13	3/03/05	55.5	75.9	<117
0	12:00:19	1:00:00	59	47
14	3/03/05	54.5	76.3	<117
0	13:00:19	1:00:00	54	47
15	3/03/05	54.8	69.0	<117
0	14:00:19	1:00:00	57	48

```
 INT#   START    Lav    Lmax   Lpk
 TAG#   TIME      ET     L1    L2
_____________________________________

  16  3/03/05   52.5    72.5 <117          *               +
   0 15:00:19  1:00:00  55     47

  17  3/03/05   71.2    91.2 <117                         *              +
   0 16:00:19  1:00:00  72     48

  18  3/03/05   64.0    91.2 <117                    *                   +
   0 17:00:19  1:00:00  62     48

  19  3/03/05   53.8    71.7 <117           *             +
   0 18:00:19  1:00:00  56     46

  20  3/03/05   53.5    71.7 <117           *             +
   0 19:00:19  1:00:00  58     45

  21  3/03/05   59.1    83.1 <117                *                  +
   0 20:00:19  1:00:00  61     45

  22  3/03/05   54.7    78.1 <117             *                 +
   0 21:00:19  1:00:00  59     44

  23  3/03/05   50.5    70.7 <117         *               +
   0 22:00:19  1:00:00  51     44

  24  3/03/05   64.1    93.3  129                    *                      +
   0 23:00:19  PARTIAL  53     45

** AMPLITUDE DISTRIBUTION REPORT **

TOTAL SAMPLES =    691200

   dB   SAMPLES                                                    % OF TOTAL
_____________________________________________________________________________
   43       662 .                                                        .09
   44      9382 *                                                       1.35
   45     27986 ****                                                    4.04
   46     40238 ******                                                  5.82
   47     55317 ********                                                8.00
   48     51594 *******                                                 7.46
   49     42636 ******                                                  6.16
   50     33188 *****                                                   4.80
   51     38968 ******                                                  5.63
   52     58563 ********                                                8.47
   53     85907 ************                                         12.42
   54     49454 *******                                                 7.15
   55     31605 *****                                                   4.57
   56     24081 ***                                                     3.48
   57     34093 *****                                                   4.93
   58     25121 ****                                                    3.63
   59     20347 ***                                                     2.94
   60     14660 **                                                      2.12
   61     11788 **                                                      1.70
   62      7912 *                                                       1.14
```

63	5184	*	.75
64	4288	*	.62
65	3856	*	.55
66	2388	+	.34
67	1716	+	.24
68	2166	+	.31
69	1554	+	.22
70	1342	+	.19
71	751	+	.10
72	732	+	.10
73	591	.	.08
74	545	.	.07
75	379	.	.05
76	287	.	.04
77	202	.	.02
78	201	.	.02
79	179	.	.02
80	280	.	.04
81	255	.	.03
82	175	.	.02
83	182	.	.02
84	143	.	.02
85	72	.	.01
86	62		.00
87	46		.00
88	53		.00
89	34		.00
90	17		.00
91	13		.00
92	4		.00
93	1		.00

Ln(0.0) = 93dB
Ln(10.0) = 59dB
Ln(50.0) = 52dB
Ln(99.9) = 44dB

	NO CUTOFF	80.0dB CUTOFF	90.0dB CUTOFF
Ldod	56.9dB	47.6dB	43.2dB
Losha	55.5dB	45.4dB	42.3dB
Leq(6)	54.8dB	43.8dB	42.1dB

Short Term Measurements

```
METROSONICS db-308 SN 1456 V2.2 12/85

CURRENT DATE:  4/27/05
CURRENT TIME:  9:33:06

_____________________________________

_____________________________________

_____________________________________

_____________________________________

CALIBRATED:   1/01/85  @   0:02:16

DISPLAY RANGE:  43.9dB TO 139.9dB

DOUBLING RATE:  3 dB

FILTER: A WGHT

RESPONSE:  SLOW

SCHEDULED RUN: OFF

   START DATE: 4/19/05
   START TIME: 0:00:00
   LENGTH:     0:01:00


** OVERALL REPORT **

TEST STARTING DATE:   4/21/05
TEST STARTING TIME:  11:37:02
TEST LENGTH:     0DAYS  0:25:45

Lav    = 64.0dB
Lav  80= 43.9dB
Lav  90= 43.9dB
SEL    = 95.8dB

Lmax = 79.0dB  ON  4/21/05 @ 14:05:02
Lpk  <  118dB

TIME OVER 115dB  0D  0:00:00.00

DOSE CRITERION:  90dB

 8 HR DOSE ( 80dB CUTOFF)=  0.00%
 8 HR PROJ. DOSE ( 80dB CUTOFF)=  0.00%
 8 HR DOSE ( 90dB CUTOFF)=  0.00%
```

```
 8 HR PROJ. DOSE ( 90dB CUTOFF)=  0.00%

** TIME HISTORY REPORT **

MODE: CONTINUOUS
PERIOD LENGTH:  0:01:00
TIME HISTORY CUTOFF: NONE
Ln(1): 10.0%  Ln(2): 90.0%

 INT#   START    Lav    Lmax   Lpk
 TAG#   TIME      ET     L1    L2
_____________________________________

    1  4/21/05   48.1    51.4 <118        *   +
    0 11:37:02  0:01:00  49     46

    2  4/21/05   46.0    48.9 <118      *  +
    0 11:38:02  0:01:00  46     45

    3  4/21/05   52.8    58.9 <118             *      +
    0 11:39:02  0:01:00  55     48

    4  4/21/05   47.4    49.3 <118       * +
    0 11:40:02  0:01:00  48     46

    5  4/21/05   55.5    60.9 <118               *     +
    0 11:41:02  0:01:00  58     48

    6  4/21/05   59.1    64.0 <118                   *     +
    0 11:42:02  0:01:00  62     49

    7  4/21/05   47.8    51.8 <118        *   +
    0 11:43:02  0:01:00  49     46

    8  4/21/05   46.6    50.1 <118      *   +
    0 11:44:02  0:01:00  47     45

    9  4/21/05   48.0    55.1 <118        *       +
    0 11:45:02  0:01:00  51     45

   10  4/21/05   54.3    63.1 <118               *         +
    0 11:46:02  0:01:00  60     46

   11  4/21/05   47.2    48.2 <118       *+
    0 11:47:02  PARTIAL  47     46

   12  4/21/05   62.7    75.1 <118                       *             +
    0 12:33:58  0:01:00  62     58

   13  4/21/05   59.5    66.4 <118                     *      +
    0 12:34:58  0:01:00  63     55

   14  4/21/05   57.6    66.1 <118                   *        +
    0 12:35:58  0:01:00  59     53

   15  4/21/05   60.7    67.4 <118                     *       +
    0 12:36:58  0:01:00  63     57
```

```
 INT#   START    Lav    Lmax   Lpk
 TAG#   TIME      ET     L1    L2
_____________________________________

  16  4/21/05   59.1    66.4 <118
   0 12:37:58  0:01:00  61     56

  17  4/21/05   61.2    63.7 <118
   0 12:38:58  0:01:00  62     58

  18  4/21/05   61.2    65.6 <118
   0 12:39:58  0:01:00  63     58

  19  4/21/05   62.9    69.1 <118
   0 12:40:58  0:01:00  65     60

  20  4/21/05   60.3    65.8 <118
   0 12:41:58  0:01:00  62     57

  21  4/21/05   61.2    66.2 <118
   0 12:42:58  0:01:00  64     58

  22  4/21/05   56.8    58.1 <118
   0 12:43:58  PARTIAL  57     55

  23  4/21/05   68.1    79.0 <118
   0 14:04:59  0:01:00  67     66

  24  4/21/05   68.4    73.3 <118
   0 14:05:59  0:01:00  70     66

  25  4/21/05   68.7    72.9 <118
   0 14:06:59  PARTIAL  70     66

  26  4/21/05   70.8    71.4 <118
   0 14:12:13  0:01:00  71     70

  27  4/21/05   70.4    70.9 <118
   0 14:13:13  0:01:00  70     70

  28  4/21/05   70.6    71.4 <118
   0 14:14:13  PARTIAL  71     70
```

```
                    *       +
                       * +
                       *    +
                         *     +
                       *     +
                       *    +
                    *+
                                *           +
                                 *    +
                                 *    +
                                   *+
                                   +
                                   *+
```

** AMPLITUDE DISTRIBUTION REPORT **

TOTAL SAMPLES = 12364

```
   dB   SAMPLES                                                  % OF TOTAL
_____________________________________________________________________________
   44         8 .                                                       .06
   45       715 ******                                                 5.78
   46       963 ********                                               7.78
   47       865 *******                                                6.99
   48       582 *****                                                  4.70
   49       329 ***                                                    2.66
   50       174 *                                                      1.40
```

```
   51       158 *                                                    1.27
   52        98 *                                                     .79
   53       174 *                                                    1.40
   54       260 **                                                   2.10
   55       354 ***                                                  2.86
   56       395 ***                                                  3.19
   57       608 *****                                                4.91
   58       873 *******                                              7.06
   59       636 *****                                                5.14
   60       831 *******                                              6.72
   61       621 *****                                                5.02
   62       519 ****                                                 4.19
   63       218 **                                                   1.76
   64       175 *                                                    1.41
   65       106 *                                                     .85
   66       427 ***                                                  3.45
   67       511 ****                                                 4.13
   68       121 *                                                     .97
   69       124 *                                                    1.00
   70      1252 **********                                          10.12
   71       192 **                                                   1.55
   72        40 +                                                     .32
   73        16 +                                                     .12
   74         8 .                                                     .06
   75         4 .                                                     .03
   76         2 .                                                     .01
   77         1                                                       .00
   78         3 .                                                     .02
   79         1                                                       .00

Ln( 0.0) =  79dB
Ln(10.0) =  70dB
Ln(50.0) =  58dB
Ln(99.9) =  45dB

             NO        80.0dB      90.0dB
           CUTOFF      CUTOFF      CUTOFF

Ldod       62.4dB      43.0dB      43.0dB
Losha      61.4dB      43.0dB      43.0dB
Leq(6)     60.6dB      43.0dB      43.0dB
```