Appendix F Traffic Study

Traffic Study for the

Simi Valley General Plan Update
Circulation and Mobility Element

SIMI VALLEY 2030
General Plan Update

Conducted for

CITY OF SIMI VALLEY

and

PBSJ

By

ITERIS

July 2011

Traffic Study for the

Simi Valley General Plan Update
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1. INTRODUCTION

The Circulation and Mobility Element represents the City's overall transportation and circulation plan. The plan consists not only of the physical transportation system itself, such as streets, highways, bicycle routes and sidewalks, but also to the various modes of transportation, such as cars, buses, trucks (goods movement), rail, bicycles, ridesharing and walking, as well. Circulation also refers to the movement of people and goods and products within and through the City. The circulation and transportation system plays an important role in shaping the overall structure and form of the City, in that it both divides and connects land uses at the same time.

The relationship of the Circulation and Mobility Element to the Land Use Element is critical since the circulation system must adequately handle future traffic as the City and surrounding areas continue to grow, and provide the means to move people and goods through and within the City of Simi Valley. Land use and circulation must be closely tied to ensure that citizens are able to move in and around the City to locations where they live, work, shop, and spend leisure hours. The circulation system is directly affected, and even shaped by existing and future land use patterns.

The Circulation and Mobility Element is one of the mandated elements of the General Plan and is intended to guide the development of the City's circulation system in a manner that is compatible with the Land Use Element. Due to the importance of a well planned circulation system, the State of California has mandated the adoption of a citywide Mobility/Circulation Element since 1955. The current State mandate for a Mobility Element is found in Government Code section 65302(b), which states that the General Plan shall include:

> *"... a mobility element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the plan."*

The anticipated level and pattern of development as identified by the buildout of the Land Use Element will generate traffic demands on the City's infrastructure system that must be accommodated by the circulation system, transportation terminals, public utilities and facilities. To help meet these demands and achieve balanced growth, the City has adopted specific goals and policies, which serve as the basis for the Mobility Element.

This traffic study examines the existing traffic conditions in the City and evaluates the expected future conditions with the buildout of existing General Plan and conditions with and alternative and preferred land use plan, and recommends intersection improvements and other measures to maintain acceptable intersection operating conditions within the City.

2. METHODOLOGY AND STUDY AREA

A. Study Methodology

The study evaluates operating conditions at key intersections within the City along with selected roadway segments to identify existing and future operating conditions and identify improvements that will address projected deficiencies and provide acceptable service levels.

1. Intersection Level of Service

Traffic operating conditions at intersections in the City are analyzed using the "Intersection Capacity Utilization" (ICU) methodology for signalized intersections and "Highway Capacity Manual" (HCM) for unsignalized intersections per the City of Simi Valley guidelines. The ICU methodology compares the amount of traffic a through or turn lane is able to process (the capacity) to the level of traffic during the peak hours (volume). The critical volume-to-capacity (V/C) ratios are combined to determine the ICU value (V/C ratio) for the entire intersection. The HCM methodology uses a delay-based approach that identifies the average delay in seconds per vehicle passing through the intersections and then compares that delay to adopted standards of performance.

The efficiency of traffic operations at a location is measured in terms of Level of Service (LOS). The LOS concept is a measure of average operating conditions during an hour. It is based on a V/C ratio for signalized locations and delay (in seconds) for stop-controlled intersections. Levels range from A to F with A representing excellent (free-flow) conditions and F representing extreme congestion. It should be noted that City of Simi Valley has established LOS C as its criterion for an acceptable level of service at intersections. The LOS definitions for signalized and unsignalized intersections are provided in **Table 1** and **Table 2**, respectively.

Table 1 – Level of Service Definitions for Signalized Intersections		
Level of Service	***Intersection Capacity Utilization***	***Definition***
A	0.000–0.600	EXCELLENT. No Vehicle waits longer than one red light and no approach phase is fully used.
B	0.601–0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701–0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801–0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901–1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.
SOURCE: Transportation Research Board, *Highway Capacity Manual, 2000*		

Table 2 – Level of Service Definitions for Unsignalized Intersections	
Level of Service	***Control Delay per Vehicle (secs)***
A	< 10
B	> 10 and < 15
C	> 15 and < 25
D	> 25 and < 35
E	> 35 and < 50
F	> 50
SOURCE: *Transportation Research Board, Highway Capacity Manual, 2000*	

2. Roadway Segment Level of Service

The LOS categories for roadway segments are listed in **Table 3** along with a description of each of the LOS category. The LOS indicators for the roadway system are based on the volume of traffic for designated sections of a roadway during a typical weekday and the practical vehicular capacity of that segment. These two measures for each monitored segment of the roadway system are expressed as a ratio. The V/C is then converted to an alpha descriptor identifying operating conditions and expressed as a level of service, LOS A through LOS F. LOS A identifies the best operating conditions along a section of roadway and is characterized by free-flow traffic, low volumes, and little or no restrictions on maneuverability. LOS F characterizes forced traffic flow with high traffic densities, slow travel speeds, and often stop-and-go conditions.

The City of Simi Valley does not analyze the level of service for roadway segments to determine traffic impacts of a project. The LOS discussion analyses and discussions provided in this report are included for comparative information only.

Table 3 – Roadway Segment Level of Service Definitions		
Level of Service	***Interpretation***	***Volume-to-Capacity Ratio***
A	Free-flow speeds prevail. Vehicles are almost unimpeded in their ability to maneuver within the traffic stream	0.00–0.60
B	Reasonably free-flow speeds are maintained. The ability to maneuver within traffic is only slightly restricted.	0.61–0.70
C	Flow with speeds at or near free-flow speed of the roadway. Freedom to maneuver within the traffic stream is noticeably restricted and lane changes require more care and vigilance on the part of the driver.	0.71–0.80
D	Speeds begin to decline slightly with increasing flows. In this range, density begins to increase somewhat more quickly with increasing flow. Freedom to maneuver within the traffic stream is noticeably limited.	0.81–0.90
E	Operation at capacity with no usable gaps in the traffic stream. Any disruption to the traffic stream has little or no room to dissipate.	0.91–1.0
F	Breakdown of the of the traffic flow with long queues of traffic. Unacceptable conditions.	>1.0
SOURCE: *Highway Capacity Manual, 2000.*		

a. Roadway Capacities

The capacity per lane for each roadway type is defined by daily capacities. These capacity assumptions are based on the operational characteristics of the roadways and the local area transportation system. For the average daily traffic along a roadway segment, the City of Simi Valley has established the following capacities:

- 8,000 vehicles per lane (vpl) per day for two-lane streets
- 10,000 vpl per day for four-lane streets
- 12,000 vpl per day for six-lane streets

B. Study Area Intersections and Roadways

The study evaluated the operating conditions at 81 intersections within the City. Those intersections are listed in **Table 4** and illustrated in **Figure 1** (Study Intersections). The study also examined the operations on 123 roadway segments within the City. A list of the roadway segments analyzed is provided in **Table 5**.

Table 4 – List of Study Intersections					
Number	***Street A***	***Street B***	***Number***	***Street A***	***Street B***
1	Rocky Peak Fire Rd	SR 118 WB Off Ramp	42	Sycamore Dr	Alamo St
2	Rocky Peak Fire Rd	SR 118 EB On Ramp	43	Sycamore Dr	SR 118 WB On-Off Ramps
3	Kuehner Dr	Smith Rd	44	Sycamore Dr	SR 118 EB On-Off Ramps
4	Kuehner Dr	Katherine Rd	45	Sycamore Dr	Cochran St
5	Kuehner Dr	Los Angeles Ave	46	Sycamore Dr	Los Angeles Ave
6	Kuehner Dr	SR 118 EB On-Off Ramps	47	Sycamore Dr	Royal Ave
7	Kuehner Dr	SR 118 WB On-Off Ramps	48	Sycamore Dr	Fitzgerald Rd
8	Yosemite Ave	Evening Sky Dr	49	Erringer Rd	Fitzgerald Rd
9	Yosemite Ave	Alamo St	50	Erringer Rd	Royal Ave
10	Yosemite Ave	SR 118 WB On-Off Ramps	51	Erringer Rd	Patricia Ave
11	Yosemite Ave	SR 118 EB On-Off Ramps	52	Erringer Rd	Los Angeles Ave
12	Yosemite Ave	Cochran St	53	Erringer Rd	Cochran St
13	Yosemite Ave	Los Angeles Ave	54	Erringer Rd	SR 118 EB On-Off Ramps
14	Stow St	Cochran St	55	Erringer Rd	SR 118 WB On-Off Ramps
15	Stow St	Los Angeles Ave	56	Erringer Rd	Alamo St
16	Stearns St	Alamo St	57	Los Angeles Ave	Hubbard St
17	Stearns St	SR 118 WB On-Off Ramps	58	Los Angeles Ave	Patricia Ave
18	Stearns St	SR 118 EB On-Off Ramps	59	First St	SR 118 WB On-Off Ramps
19	Stearns St	Cochran St	60	First St	SR 118 EB On-Off Ramps
20	Stearns St	Los Angeles Ave	61	First St	Cochran St
21	Los Angeles Ave	Hidden Ranch Dr	62	First St	E Easy St
22	Los Angeles Ave	Ralston Ave	63	First St	Los Angeles Ave
23	Kadota St	Cochran St	64	First St	Royal Ave
24	Kadota St	Alamo St	65	First St	Fitzgerald Rd
25	Tapo St	Walnut St	66	Sinaloa Rd	Los Angeles Ave
26	Tapo St	Alamo St	67	Sinaloa Rd	Royal Ave
27	Tapo St	Cochran St	68	Viewline Dr	SR 118 WB On-Off Ramps
28	Tapo St	Los Angeles Ave	69	Madera Rd	Viewline Dr
29	Tapo Canyon Rd	Royal Ave	70	Madera Rd	SR 118 EB On-Off Ramps
30	Tapo Canyon Rd	Los Angeles Ave	71	Madera Rd	Cochran St
31	Tapo Canyon Rd	Cochran St	72	Madera Rd	Easy St
32	Tapo Canyon Rd	SR 118 EB On-Off Ramps	73	Madera Rd	Los Angeles Ave/Tierra Rejada Rd
33	Tapo Canyon Rd	SR 118 WB On-Off Ramps	74	Madera Rd	Royal Ave
34	Tapo Canyon Rd	Alamo St	75	Tierra Rejada Rd	Stargaze Pl
35	Tapo Canyon Rd	Township Ave	76	Madera Rd	Country Club Dr East
36	Tapo Canyon Rd	Lost Canyons Dr	77	Wood Ranch Parkway	Madera Rd
37	Sequoia Ave	Alamo St	78	Wood Ranch Parkway	Country Club Dr West
38	Sequoia Ave	Cochran St	79	Wood Ranch Parkway	Long Canyon Rd
39	Sequoia Ave	Los Angeles Ave	80	Madera Rd	Presidential Dr
40	Sequoia Ave	Royal Ave	81	Madera Rd	Country Club Dr West
41	Cochran St	Galena Ave			

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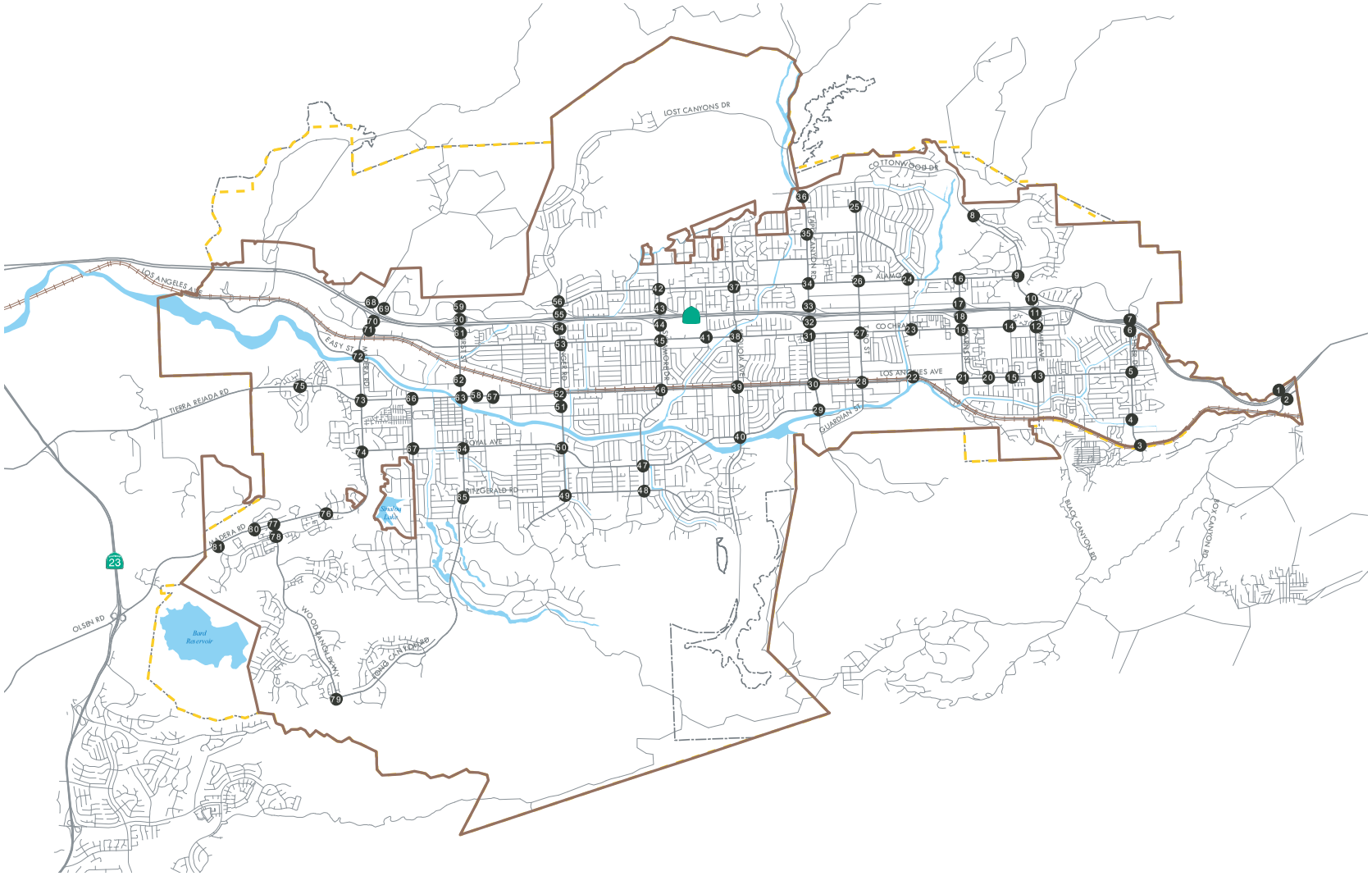
Study Intersections



Legend

- Sphere of Influence
- City Urban Restriction Boundary
- City Boundary
- Water Body
- Major Road
- Railroad
- Study Intersection

Source: Ventura County, 2003
Date Revised: December 16, 2009
D21310_Simi_Valley_GP\Seismic_Geologic_Hazards.mxd

Miles
0 0.25 0.5 1 1.5

Figure 1

Table 5 – List of Analyzed Roadway Segments			
Roadway Segments	***Roadway Segments***	***Roadway Segments***	***Roadway Segments***
Alamo Street	Fitzgerald Road	First St	Tapo Street
Erringer to Sycamore	First to Hudspeth	Easy to Los Angeles	Walnut to Township
Sycamore to Sequoia	Erringer to Sycamore	Los Angeles to Royal	Township to Alamo
Sequoia to Tapo Canyon	Sycamore to Sequoia	Royal to Fitzgerald	Alamo to Cochran
Tapo Canyon to Tapo	Country Club Drive East	Fitzgerald to Bluegrass	Cochran to Los Angeles
Tapo to Stearns	Madera to Wood Ranch	Long Canyon Road	Stearns Street
Stearns to Yosemite	Country Club Drive West	Bluegrass to Wood Ranch	Alamo to SR 118 Fwy
Cochran Street	Madera to Wood Ranch	Erringer Road	SR 118 Fwy to Cochran
West of Madera	Wood Ranch Parkway	N/O Legacy	Cochran to Los Angeles
Madera to First	Madera to Country Club	N/O Alamo	Stow Street
First to Erringer	Country Club to Lake Park South	Alamo to SR 118 Fwy	S/O Cochran
Erringer to Sycamore	Lake Park South to Long Canyon	SR 118 Fwy to Cochran	Yosemite Avenue
Sycamore to Galena	Madera Road	Cochran to Los Angeles	N/O Evening Sky
Galena to Sequoia	W City Limits to Country Club West	Los Angeles to Royal	Flanagan to Alamo
Sequoia to Tapo Canyon	Country Club West to Wood Ranch	Royal to Fitzgerald	Alamo to SR 118 Fwy
Tapo Canyon to Tapo	Wood Ranch to Country Club East	S/O Fitzgerald	SR 118 Fwy to Cochran
Tapo to Stearns	Vista Lago to Royal	Sycamore Drive	Cochran to Los Angeles
Stearns to Stow	Royal to Los Angeles	N/O Alamo	Los Angeles to Katherine
Stow to Yosemite	Los Angeles to Easy	Alamo to SR 118 Fwy	Kuehner Drive
E/O Yosemite	Easy to Cochran	SR 118 Fwy to Cochran	SR 118 Fwy to Los Angeles
Los Angeles Avenue	Cochran to SR 118 Fwy	Cochran to Los Angeles	Los Angeles to Katherine
Madera to Sinaloa	North of View Line	Los Angeles to Royal	S/O Katherine
Sinaloa to First	View Line Drive	Royal to Fitzgerald	Katherine Road
First to Erringer	SR 118 Fwy to Madera	Galena Avenue	W/O Kuehner
Erringer to Sycamore	Tierra Rejada Road	Alamo to Cochran	Katherine Street
Sycamore to Sequoia	Friendly Village to Stargaze	Sequoia Avenue	W/O Yosemite
Sequoia to Tapo Canyon	W/O Madera	N/O Alamo	Santa Susana Pass Road
Tapo Canyon to Tapo	Easy Street	Alamo to Cochran	E/O Lilac
Tapo to Stearns	West Los Angeles to Madera	Cochran to Los Angeles	W. Los Angeles Avenue
Stearns to Stow	Madera to First	Los Angeles to Royal	W/O Quimisa
Stow to Yosemite	Sinaloa Road	Royal to Fitzgerald	
Yosemite to Rory	Los Angeles to Royal	Tapo Canyon Road	
Rory to Kuehner	S/O Royal	N/O Presidio	
Royal Avenue	First St	Township to Alamo	
Madera to Sinaloa	Town Center to SR 118 Fwy	Alamo to SR 118 Fwy	
Sinaloa to First	SR 118 Fwy to Cochran	SR 118 Fwy to Cochran	
First to Erringer	Cochran to Easy	Cochran to Los Angeles	
Erringer to Sycamore		Los Angeles to Royal	
Sycamore to Sequoia		Royal to Guardian	
Sequoia to Tapo Canyon			

C. Existing Circulation System

The City of Simi Valley is served by various transportation facilities, including one regional freeway (State Route 118), one freight/commuter rail line, an extensive roadway network, and several bus transit lines. The network of major roadways in Simi Valley is primarily designed in a north/south and east/west grid pattern with primary and secondary arterials spaced between one mile and one-half mile intervals. Many of the primary and secondary arterials within the City of Simi Valley are built out to the full paved cross section along the entire length. Local streets do not typically follow a grid pattern.

3. Regional Access

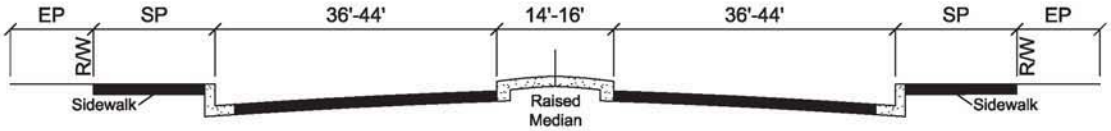
As a state facility, State Route 118 (SR 118) provides regional access to the City. The facility has three general purpose lanes in each direction from Madera Road to Tapo Canyon Road and has four general purpose lanes from Tapo Canyon Road to the Los Angeles County line. The freeway carries between 80,000 and 135,000 daily trips in Simi Valley, generally increasing from west to east. There are eight full-access interchanges on SR 118 within the City. These interchanges are Madera Road; First Street; Erringer Road; Sycamore Drive; Tapo Canyon Road; Stearns Street; Yosemite Avenue; and Kuehner Drive; and one partial-access interchange at Rocky Peak Fire Road.

4. Functional Roadway Classifications

The existing regional and local roadway network in Simi Valley is a hierarchical system of highways and local streets developed to provide regional traffic movement and local access. The following section provides a description of the functional classification of the facilities within the planning area. **Figure 2** (Roadway Cross-Sections) depicts typical cross sections for all of the roadway classifications. The street classifications for the major facilities in the planning area are shown on **Figure 3** (Functional Street Classifications). The description and cross-section of the City's arterial and collector roadways is listed in **Table 1**.

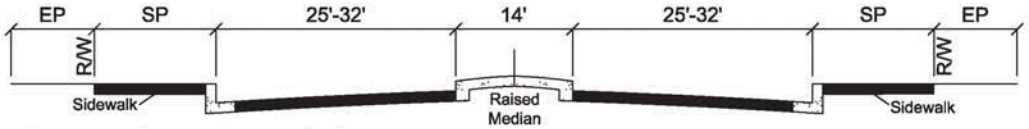
b. Primary Arterials

Primary arterials are intended to service through, non-local traffic and provide limited controlled access. They have a cross section of three through lanes in each direction, and a median for left-turning traffic. Primary arterials are generally designated as 86-foot-wide roadways, within a 106-foot right-of-way. Bike lanes may be included on major arterials when separate facilities are not available. However, the wide right-of-way sometimes allows for the development of off-street bike lanes.



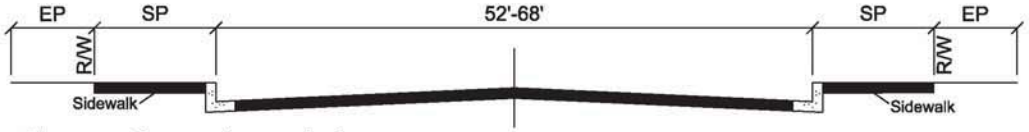
Primary Arterial

Limited/Controlled Access



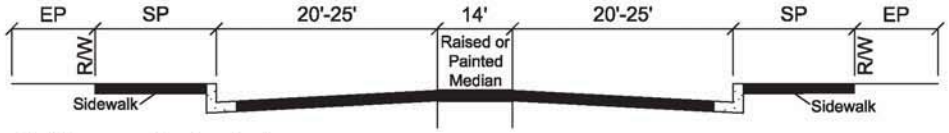
Secondary Arterial

Limited/Controlled Access



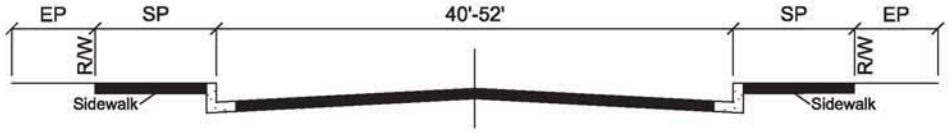
Secondary Arterial

Limited/Controlled Access (may have Painted Median)



Minor Arterial

Limited/Controlled Access



Collector

Limited/Controlled Access (may have Painted Median)

SP - Standard Parkway
EP - Enriched Parkway
R/W - Right of WayLine

Not to Scale

Notes:
These cross sections are general in nature and are not intended to be used for design purposes.

Sidewalks may also meander outside of the Standard Parkway within the Enriched Parkway or a seperate sidewalk easement.

Where bike lanes are required an additional 12 feet of R.O.W. is necessary.

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General Plan Update

Roadway
Cross-Sections

Figure 2

SIMI VALLEY 2030
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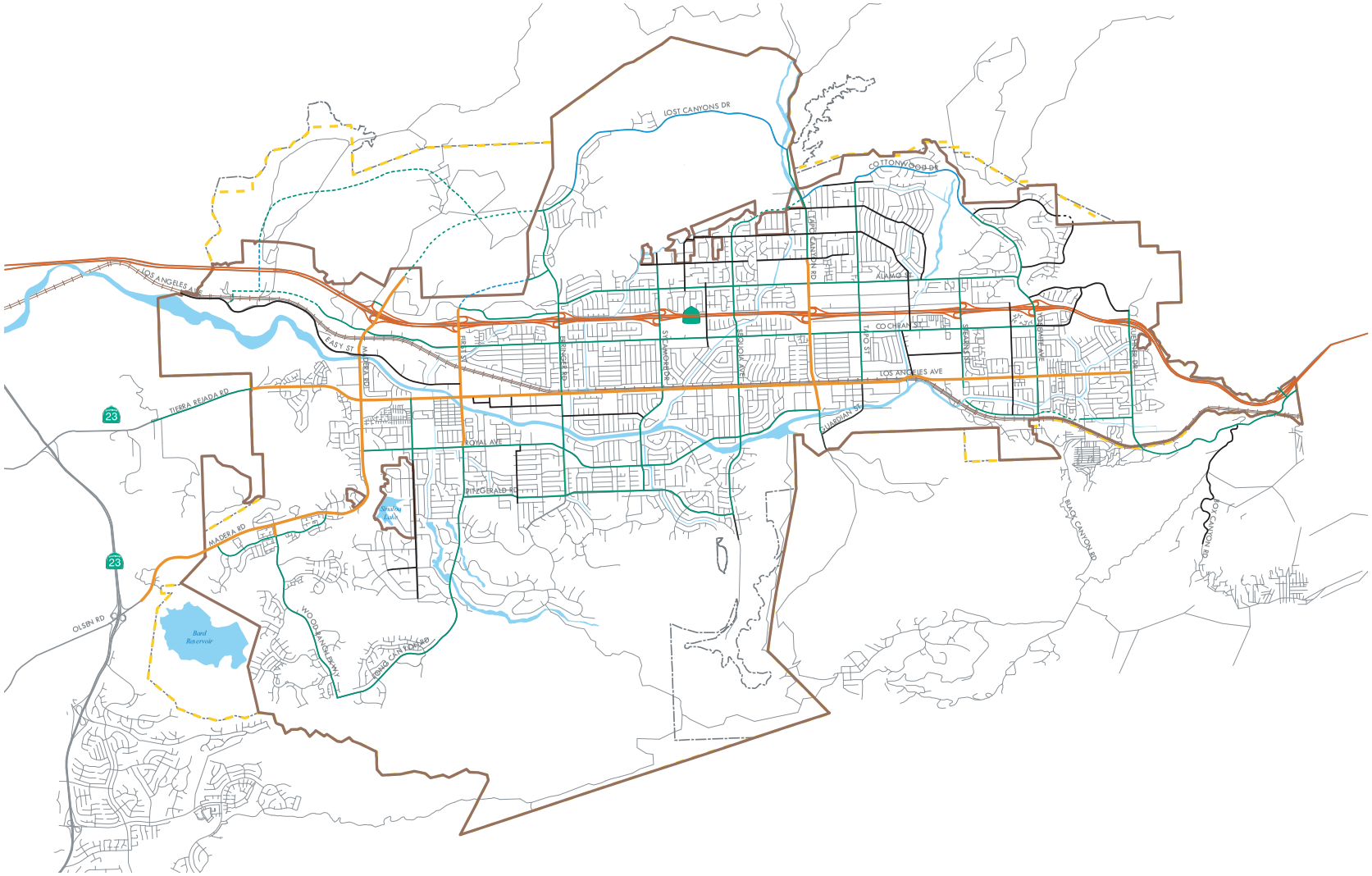
Functional Street Classifications



Legend

- Sphere of Influence
- City Urban Restriction Boundary
- City Boundary
- Water Body
- Major Road
- Railroad
- Study Intersection
- Primary Arterial
- Secondary Arterial
- Secondary Arterial (not built)
- Minor Arterial
- Minor Arterial (not built)
- Collector
- Collector (not built)

Source: Ventura County, 2003
Date Revised: December 16, 2009
D21310_Simi_Valley_GP\Seismic_Geologic_Hazards.mxd

Miles
0 0.25 0.5 1 1.5

Figure 3

c. Secondary Arterials

Secondary arterials provide more local access than the major arterials, while also providing a lesser level of non-local through-traffic service. Secondary arterials have a cross section of two to four through lanes in each direction, a raised median or two-way left-turn lane and may also include a bike lane, in 52 to 78 feet of curb-to-curb space, and an 82- to 98-foot-wide right-of-way. These roadways are sometimes undivided with possible limited on-street parking, turn lanes at intersections, and may have partial control of vehicular and pedestrian access from driveways, cross streets, and crosswalks.

d. Minor Arterials

Minor Arterials are narrower than primary or secondary arterials. These roadways are typically two or four lanes wide with limited access to driveways and cross streets. Minor arterials are able to accommodate bikeways. They are 40 to 64 feet, curb to curb, within 60- to 84-foot rights-of-way, and may have a median.

e. Collectors

The primary role of collector roadways is to provide access between the arterial network and neighborhood and commercial development. These roadways are typically two lanes wide undivided and have turn lanes at intersections. Collectors in Simi Valley are 40 to 52 feet, curb to curb, within 60- to 72-foot rights-of-way.

f. Local Residential Streets

Local residential streets serve adjacent residential land uses only, allowing access to residential driveways and providing on-street parking for neighborhoods. Local residential streets in Simi Valley are designated 36- to 40-foot roadways within 56- to 60-foot rights-of-way. These streets are not intended to serve through traffic traveling from one street to another. Traffic volumes on these streets should not exceed 4,000 vehicles per day.

g. Hillside Collector Streets

Hillside Collector streets may have special design characteristics, such as steeper gradients and reduced rights-or-way and design speeds. These characteristics allow them to be compatible with topographic constraints and therefore reduce the need for grading. The criteria for these streets are contained in the City's Hillside Performance Standards (HPS) ordinance.

D. Relationship to Other Plans

1. Other General Plan Elements

The Circulation and Land Use Elements mutually affect one another. The nature, routing and design of circulation facilities are among the major determinants of the form of human settlement and of the

uses of the land. Conversely, land uses create a demand for circulation facilities. The goals and policies of the Circulation Element also have a direct relationship with the housing, open-space, noise and safety elements. State law requires consistency among all the elements of the General Plan.

2. Congestion Management Program

The City of Simi Valley is required to show continued compliance with the countywide Congestion Management Program (CMP). Currently, SR 118, Erringer Road, First Street, Kuehner Drive, Los Angeles Avenue, Madera Road, Stearns Street, Sycamore Drive, Tapo Canyon Road, Tierra Rejada Road, and Yosemite Avenue are highways and arterials in the CMP Road Network. Intersections of these facilities are used for level of service determination.

Since the inception of the countywide CMP guidelines, the City of Simi Valley has complied with all provisions of the program. The benefits of compliance with the CMP provisions include the allocation of the City's fair share of gas tax subventions collected by the State of California.

3. State Transportation Improvement Program (STIP)

The STIP is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the State Highway Account and other funding sources. The following projects that are included in the STIP are partially or entirely within Simi Valley:

- Alamos Canyon Rd./SR 118 interchange
- SR 118 Widening, between Los Angeles Avenue in Moorpark and Tapo Canyon Road

4. Regional Transportation Improvement Program (RTIP)

The RTIP is the Southern California Association of Government's compilation of state, federal, and local funded transportation projects. In addition to projects identified in the STIP, the RTIP includes federal Congestion Mitigation Air Quality (CMAQ) and Surface Transportation Program (STP) funds, other federal funds and projects entirely funded out of local and private funds. The following projects that are included in the RTIP are partially or entirely within the Planning Area:

- Class II Bike Lanes on West Los Angeles Avenue, from the western City limit to Easy Street

5. California Complete Streets Act of 2008 (AB1358)

The State of California has set targets for the reduction of greenhouse gas emissions in California to slow the onset of human-induced climate change. The State has determined that transportation represents 41 percent of total greenhouse gas emissions in California. According to the United States Department of Transportation's 2001 National Household Travel Survey, 41 percent of trips in urban areas nationwide are two miles or less in length, and 66 percent of urban trips that are one mile or less are made by automobile. Shifting the transportation mode share from single passenger cars to public transit, bicycling, and walking must be a significant part of short and long-term planning goals if the

state is to achieve the reduction in the number of vehicle miles traveled and in greenhouse gas emissions required by current law.

The Complete Streets Act requires the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan.

The Circulation Element includes policies and implementation measures to address Complete Streets compliance in the City of Simi Valley.

3. EXISTING VOLUMES AND OPERATING CONDITIONS

Existing operating conditions were evaluated for 81 intersections and 123 roadway segments were in the City. Intersection turning movement counts at the 81 locations were conducted during the months of April and May of 2006; 24-hour traffic counts were conducted in February 2006 at selected roadway segments. Summaries of the traffic counts are provided in the Appendix.

A. Existing Intersection Level of Service

The results of the morning and evening peak-hour capacity analyses show that the majority of the City's intersections are operating at an acceptable LOS A, B or C conditions for both AM and PM peak hours. There are only two unsignalized intersections operating at an unacceptable LOS (LOS D, E or F) during AM or PM peak hours, or both, according to City of Simi Valley's standards. These unsignalized intersections are:

- Kuehner Drive & SR 118 Westbound On-Off Ramps
- Kadota Street & Alamo Street

A summary of the intersection LOS are shown in **Figure 4** (Existing Intersection Level of Service) and are listed in the Appendix.

B. Roadway Segment Level of Service

The capacity analyses show that a vast majority of the City's arterial segments are operating at free-flow LOS A conditions, with a limited number of segments at LOS B or C, which are considered to be acceptable operating conditions. There is one segment operating at LOS D: Madera Road: West City Limits to Country Club Drive West. A summary list of the roadway segment operating V/C ratios and LOS is provided in the Appendix.

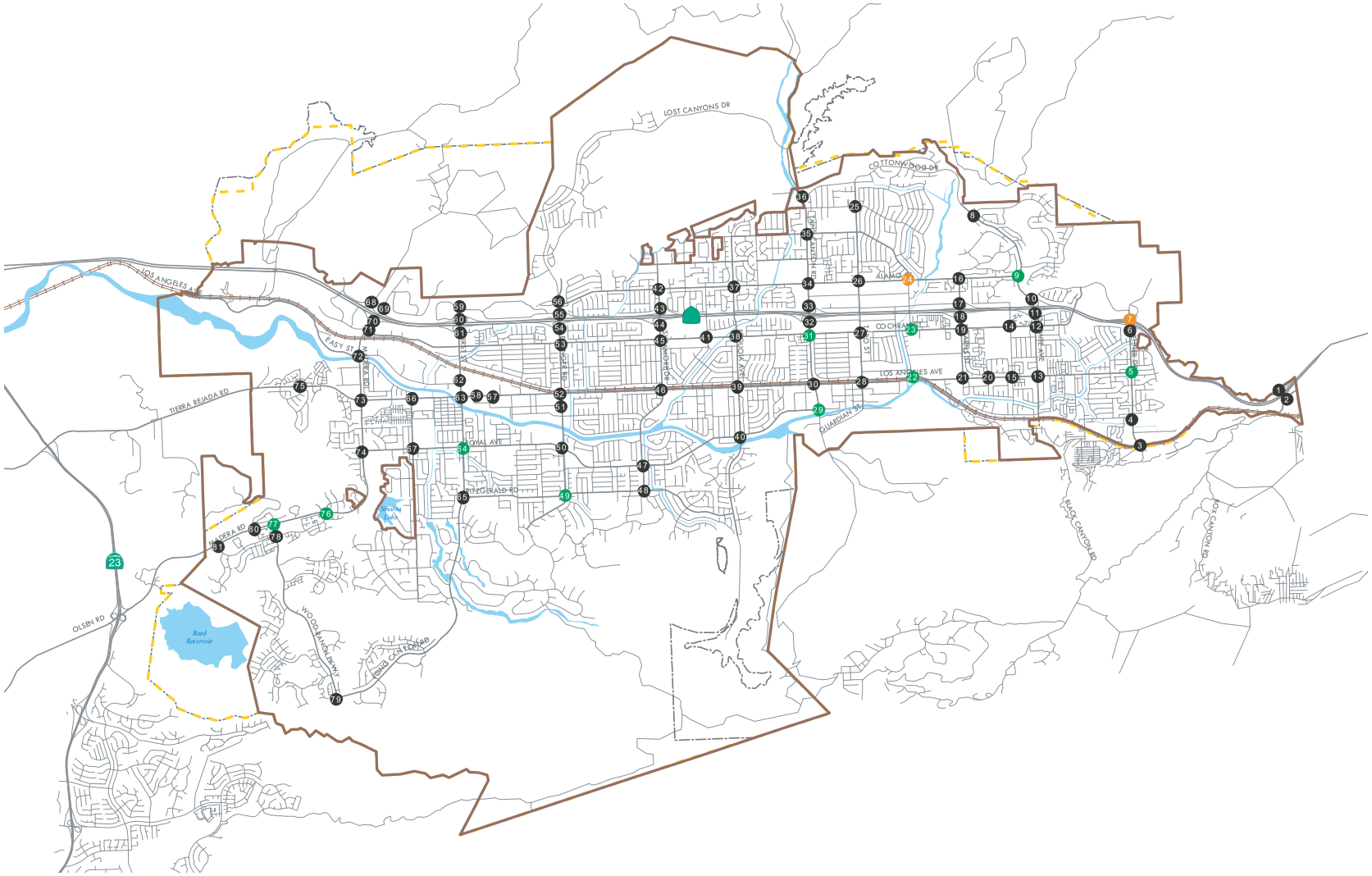
As previously noted, The City of Simi Valley does not analyze the level of service for roadway segments to determine traffic impacts of a project. The LOS discussion analysis and discussion provided are included for comparative information only.

A summary of the roadway segment LOS is provided in the Appendix.

SIMI VALLEY 2030
General Plan Update

CITY of SIMI VALLEY General Plan Update

Existing Intersection Levels of Service



Legend

- Sphere of Influence
- City Urban Restriction Boundary
- City Boundary
- Water Body
- Major Road
- Railroad
- Study Intersection
- LOS A or B
- LOS C
- LOS D
- LOS E
- LOS F

Source: Ventura County, 2003
Date Revised: December 16, 2009
D21310_Simi_Valley_GP\Seismic_Geologic_Hazards.mxd

Miles
0 0.25 0.5 1 1.5

Figure 4

C. Traffic Volumes and Patterns Issues

Simi Valley is served well by a broad north/south arterial grid and regional freeways. The comprehensive arterial grid system provides ample capacity to move local and regional traffic. While SR 118 carries between 80,000 and 135,000 east/west trips on a daily basis, the arterials collectively also move between 80,000 to 90,000 east/west trips across the City. In the north/south direction, with the lack of a single high-capacity facility (e.g. freeway), the collection of over ten arterials, together handle between 90,000 (in the northern and southern edges) to as high as 195,000 daily trips (generally north of Los Angeles Avenue) across the valley.

As Simi Valley continues to grow in population and employment, pressure will continue to mount on the existing street system and its finite capacity. Simi Valley, which has traditionally been a bedroom community supplying housing to employees that commuted predominantly to the Los Angeles basin, is progressively attracting jobs, which is moving the City more into a jobs-housing balance. In addition, with the increase in the job base in Ventura County cities to the west and south and the completion of the SR 118/SR 23 freeway connection, travel patterns are beginning to change and the traditional heavy peak directionality (eastbound AM and Westbound PM) are giving way to a more balanced peak and relatively heavy all-day patterns along certain corridors.

While traffic is perceived as being heavy, most streets are not heavily congested and are not operating under poor levels of service. Because arterial street rights-of-way are virtually fixed and many of the arterials are built out with little potential for widening streets, increased congestion in the future will have to be managed through innovative strategies for more efficient movement of traffic, low-cost intersection operational improvements, the use of ITS technologies, travel demand management strategies, and mixed-use, transit-oriented development strategies. In addition, the need to evaluate and provide, where possible, for all modes of travel as part of the Complete Streets requirements will place extra pressure on limiting the size of roadways and the number of travel lanes. Limited roadway widening is likely to be reserved for selected segments and/or intersections presenting heavy traffic conditions.

Generally, traffic volume levels are heavier on the western portions of the City. As mentioned above, in general, traffic flow on the City's arterials is relatively uncongested. However, there are a few locations throughout the City where congestion levels, especially during peak hours, are becoming noticeable and congestion is projected to increase along several key corridors in the future. Some of these locations currently operate as unsignalized intersections and could be candidates for signalization in the future.

Another overarching circulation issue is that north/south travel in the City is relatively more constrained than east/west flows. While there are several continuous east/west arterials plus the SR 118 that provide citywide connectivity, north/south traffic flows are constrained and impacted by several natural and man-made features including the freeway, the railroad, and the Arroyo Simi. This

creates a limited number of crossings with no major opportunity to add crossings in many cases. This issue will be considered in the development of the Circulation Element.

The SR 118 Freeway currently has eight complete interchanges that provide access to the City. With the exception of a few places, these interchanges are generally located at the standard urban 1-mile spacing. There may be a need and consideration in the future for additional interchange(s) for better service to the growing areas of the City. The General Plan includes the addition of a new full-access interchange to be provided at Los Alamos Canyon Road.

4. FUTURE OPERATING CONDITIONS

A. Traffic Forecasting Model and Future Volumes

As part of this circulation system analysis, the Simi Valley Travel Demand Forecast Model was used to analyze the traffic impacts of projected development within the City at buildout of the General Plan land uses. This model currently has a year 2006 base-year and year 2030 as regional horizon year for the future. In the SCAG regional model, approximately 25 traffic analysis zones (TAZs) constitute the City of Simi Valley. These zones were disaggregated to 342 TAZs for planning purposes.

In coordination with the General Plan team and City staff, land use quantities were estimated for the Buildout conditions of the study area for each of the TAZs. These land use quantities were then converted to socio-economic data compatible with inputs to the model. These model input data include the number of single and multiple dwelling units, population, retail and total employment. The Simi Valley Model highway network was also obtained from SCAG and refined by adding secondary and minor arterials, collector streets, and zonal connectors to represent a more detailed network consistent with the finer zone system.

The Year 2006 and future year land use data for the various General Plan alternatives for the disaggregated TAZs were entered into the model for all study area zones and substituted for the original study area TAZs. The model was run using these new buildout trips in the project area and the estimated 2030 trips from all other zones in the model representing the southern California region. Trip generation, distribution and mode choice functions for the model were carried out and the four-period trip tables (AM, PM peak, mid-day and night-time) were developed. The General Plan team performed traffic assignments for the AM and PM peak hours and all four periods and combined to generate total daily volumes. These future volumes were assigned to the City of Simi Valley's future planned circulation network. The results were analyzed in detail.

B. Description of General Plan Alternative Scenarios

The analysis of intersection and roadway segment operating conditions are based on five land use scenarios. One is the forecasting model version of the base year 2006 conditions. The remaining four scenarios evaluate future year conditions. The following briefly describes each of the analyzed scenarios:

Existing Year 2006: This scenario consists of the existing land uses in the City as of the base year 2006. This analysis scenario established the base year conditions in the model onto which each of the future

year scenarios are based. The difference between the traffic generated by the Existing Year 2006 model and the future year models is the traffic that is added to the documented existing conditions to create the future year volumes for each land use scenario.

Existing General Plan Buildout: This scenario is the buildout of the existing General Plan land uses and is used to demonstrate the projected traffic impacts if the City were built out per the current General Plan. Per this scenario, there would be approximately 48,792 residential dwelling units, over 6.8 million square feet of commercial space, 2.1 million square feet of office space, 3.24 million square feet of Business Park and 16.3 million square feet of industrial space constructed.

Updated General Plan Alternative per SCAG Forecast: The Updated General Plan Alternative is a land use plan with increased development above the existing General Plan, especially in the 13 development subareas. This scenario is the level of development for that alternative plan projected to occur in key land use categories during the Updated General Plan Alternative Year 2035 horizon as correlated to the Southern California Association of Governments (SCAG) regional growth projections. This level of development includes 58,000 residential units, 8.9 million square feet of commercial, 4.8 million square feet of office, 3.7 million square feet of Business Park, and 8.1 million square feet of industrial space.

Updated General Plan Alternative Buildout: This is the level of development in key land categories if the Updated General Plan Alternative land use plan was built out to the capacity allowed. Development in this scenario includes 60,719 residential dwelling units, over 9 million square feet of commercial space, over 12 million square feet of office, 13.3 million square feet of Business Park, and 12.6 million square feet of industrial space.

Updated General Plan Buildout With Preferred Land Use Plan: This is the level of development in key land categories based on the buildout of a reduced land use development scenario. This reduced development plan scenario includes 58,438 residential dwelling units, approximately 8.7 million square feet of commercial space, over 7.6 million square feet of office, 5.7 million square feet of Business Park, and 12.1 million square feet of industrial space.

A summary of the five land use plan scenarios is presented in **Table 6**.

Table 6 – City of Simi Valley General Land Use Assumptions for the Analyzed Development Milestones					
Scenario	**Residential (Units)**	**Commercial (000 S.F.)**	**Office (000 S.F.)**	**Business Park (000 S.F.)**	**Industrial (000 S.F.)**
Year 2006	44,799	6,949	999	1,116	8,241
Existing General Plan	48,792	6,814	2,107	3,243	16,319
Updated General Plan Alternative per SCAG Forecast	58,000	8,901	4,822	3,773	8,135
Updated General Plan Alternative Buildout	60,719	9,029	12,090	13,364	12,600
Updated General Plan Buildout With Preferred Land Use Plan	58,438	8,764	7,642	5,734	12,134

C. Future Roadway Network

1. Existing General Plan Intersection Improvements

The current General Plan has a series of intersection improvements that were previously approved in order to maintain acceptable intersection operating conditions with the development of the buildout of those General Plan land uses. These lane additions and traffic signals are referred to as the "programmed improvements." Those intersection improvements (additional turn and/or through lanes, traffic signals, etc.) were included as part of the base future roadway network for all of the future land use scenarios. A list of those improvements is provided in the Appendix.

2. Roadway Segment Widening

For the purposes of this analysis, additional lanes have also been added to some roadway segments in anticipation of proposed widening projects that are expected to be completed by the horizon year per the City of Simi Valley Public Works staff as part of the Existing General Plan. The future roadway segment improvements included in the future development scenarios include:

- Providing 6 through lanes on Los Angeles Avenue between Erringer Road and Kuehner Drive;
- Providing 4 through lanes on Fitzgerald Road between Erringer Road and Sycamore Drive;
- Providing 6 through lanes on Madera Road between the West City Limits and SR 118;
- Providing 4 through lanes on Tapo Canyon Road north of Presidio Drive.

D. Future Operating Conditions

The future year intersection operating conditions were evaluated for each of the four previously discussed future year land use plans. The LOS conditions for the 81 intersections in the City were studied during AM and PM peak hours. As was used to evaluate the existing operating conditions, the LOS conditions analyzed were based on the ICU methodology for signalized intersections, while the unsignalized intersections were analyzed per the "Highway Capacity Manual" per the City of Simi Valley guidelines.

1. General Plan Buildout Intersection Operating Conditions

Programmed improvements from the previous General Plan have been added as the base geometric condition. These improvements are included as the base condition since they are the improvements that would be required to mitigate impacts related to the Existing General Plan.

Table 7, below, summarizes the intersection LOS conditions for existing conditions and each of the four future development scenarios. A more detailed summary of each of the four future scenarios follows. The intersection capacity analyses results and levels of service for each scenario are provided in the Appendix.

Table 7 – Summary of Intersection LOS Operating Conditions

Intersection Operations	*Existing 2006*		*Existing General Plan Buildout*		*Updated General Plan Alternative Per SCAG Forecast*		*Updated General Plan Alternative Buildout*		*Updated General Plan Buildout With Preferred Land Use*	
	AM	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*
Total Analyzed Intersections	81	81	81	81	81	81	81	81	81	81
Intersections at LOS A or B	69	69	73	71	72	61	68	59	68	62
Intersections at LOS C	10	10	8	10	7	16	11	17	11	14
With improvements	-	-	-	-	*7*	*18*	*13*	*21*	*13*	*19*
Intersections at LOS D	1	1	0	0	2	3	1	3	1	3
With improvements	-	-	-	-	*0*	*1*	*0*	*0*	*0*	*0*
Intersections at LOS E	1	1	0	0	0	1	1	2	1	2
With improvements	-	-	-	-	-	*0*	*0*	*0*	*0*	*0*
Intersections at LOS F	0	0	0	0	0	0	0	0	0	0
With improvements	-	-	-	-	-	-	-	-	-	-
Note: All future scenarios assume Existing General Plan "Programmed" improvements in place										

Existing General Plan Buildout (See **Figure 5**)***:***

- All 81 of the analyzed intersections are projected to operate at LOS A, B or C during both the AM and PM peak hours.

Alternative Updated General Plan Per SCAG (See **Figure 6**)***:***

- 79 of the 81 analyzed intersections are projected to operate at LOS A, B or C during the AM peak hour, while 77 would operate at LOS A, B or C during the PM peak hour;
- 4 intersections are projected to operate at LOS D during at least one of the peak hours; and
- The intersection of Los Angeles Avenue and Patricia Avenue is projected to operate at LOS E during the PM peak hour.

Under this scenario, the following five intersections are projected to operate at LOS D or lower and would require additional improvements:

- Kadota Street / Cochran Street *(AM- LOS D; PM – LOS C)*
- Tapo Street / Los Angeles Avenue *(AM- LOS A; PM – LOS D)*
- Sycamore Drive / Los Angeles Avenue *(AM- LOS D; PM – LOS D)*
- Los Angeles Avenue and Patricia Avenue *(AM- LOS C; PM – LOS E)*
- First Street / Los Angeles Avenue *(AM- LOS C; PM – LOS D)*

Alternative Updated General Plan Buildout (See **Figure 7**)***:***

- 79 of the 81 analyzed intersections are projected to operate at LOS A, B or C during the AM peak hour, while 76 would operate at LOS A, B or C during the PM peak hour;
- 3 intersections are projected to operate at LOS D during at least one of the peak hours;
- 2 intersections (1 unsignalized) are projected to operate at LOS E during at least one of the peak hours; and
- The intersection of Los Angeles Avenue and Patricia Avenue is projected to operate at LOS E during both peak hours.

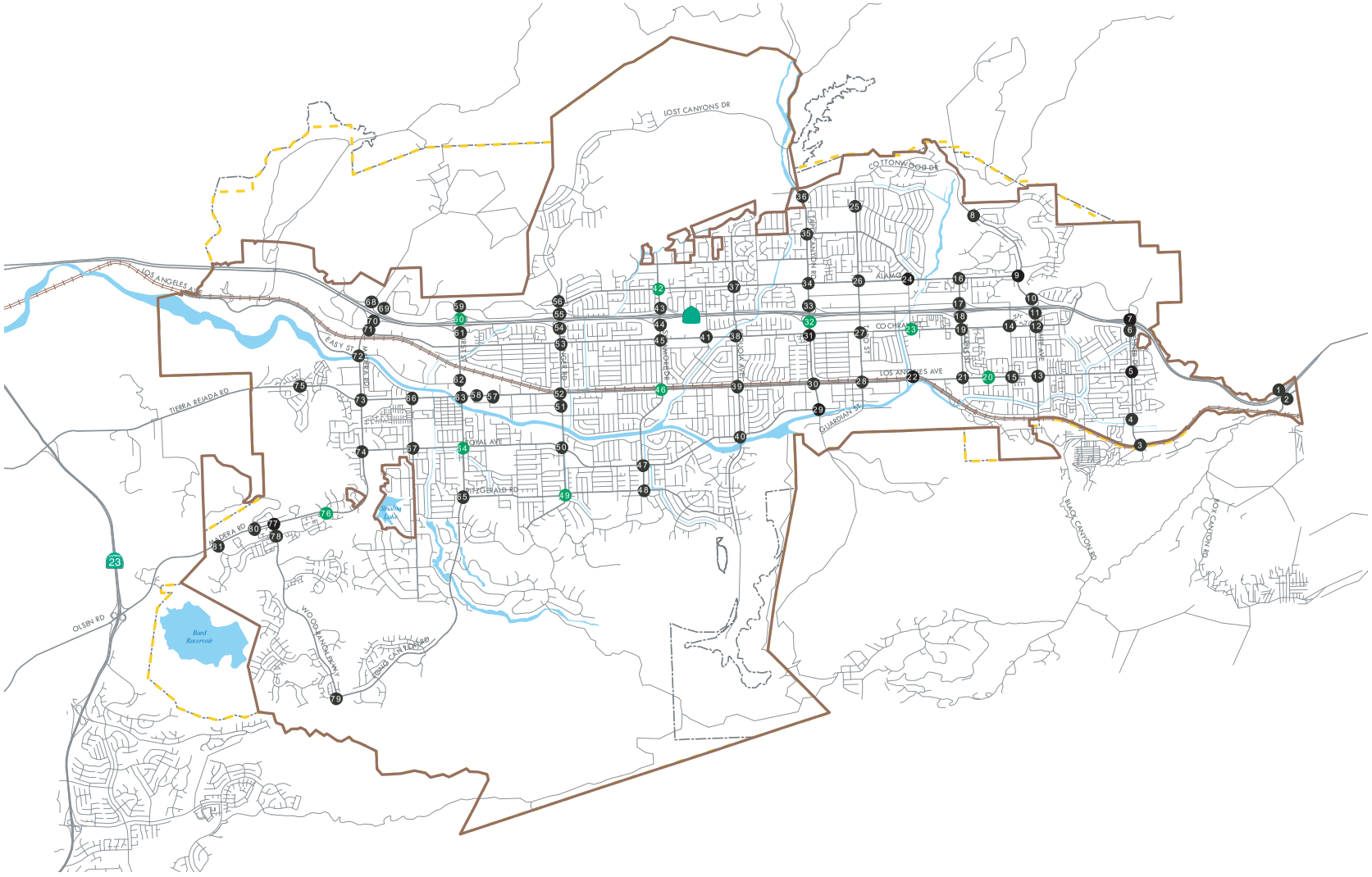
Under this scenario, the following six intersections are projected to operate at LOS D or lower and would require additional improvements:

- Stearns Street / Los Angeles Avenue *(AM- LOS A; PM – LOS D)*
- Kadota Street / Cochran Street *(AM- LOS E; PM – LOS C)*
- Sycamore Drive / Los Angeles Avenue *(AM- LOS D; PM – LOS D)*
- Los Angeles Avenue and Patricia Avenue *(AM- LOS E; PM – LOS E)*
- First Street / Easy Street*(AM- LOS B; PM – LOS D)*
- First Street / Los Angeles Avenue *(AM- LOS C; PM – LOS E)*

SIMI VALLEY 2030
General Plan Update

CITY of SIMI VALLEY
General Plan Update

Existing General Plan Buildout Intersection Levels of Service



Legend

- Sphere of Influence
- City Urban Restriction Boundary
- City Boundary
- Water Body
- Major Road
- Railroad
- Study Intersection
- LOS A or B
- LOS C
- LOS D
- LOS E
- LOS F
- LOS After Mitigation

Source: Ventura County, 2003
Date Revised: December 16, 2009
D21310_Simi_Valley_GP\Seismic_Geologic_Hazards.mxd

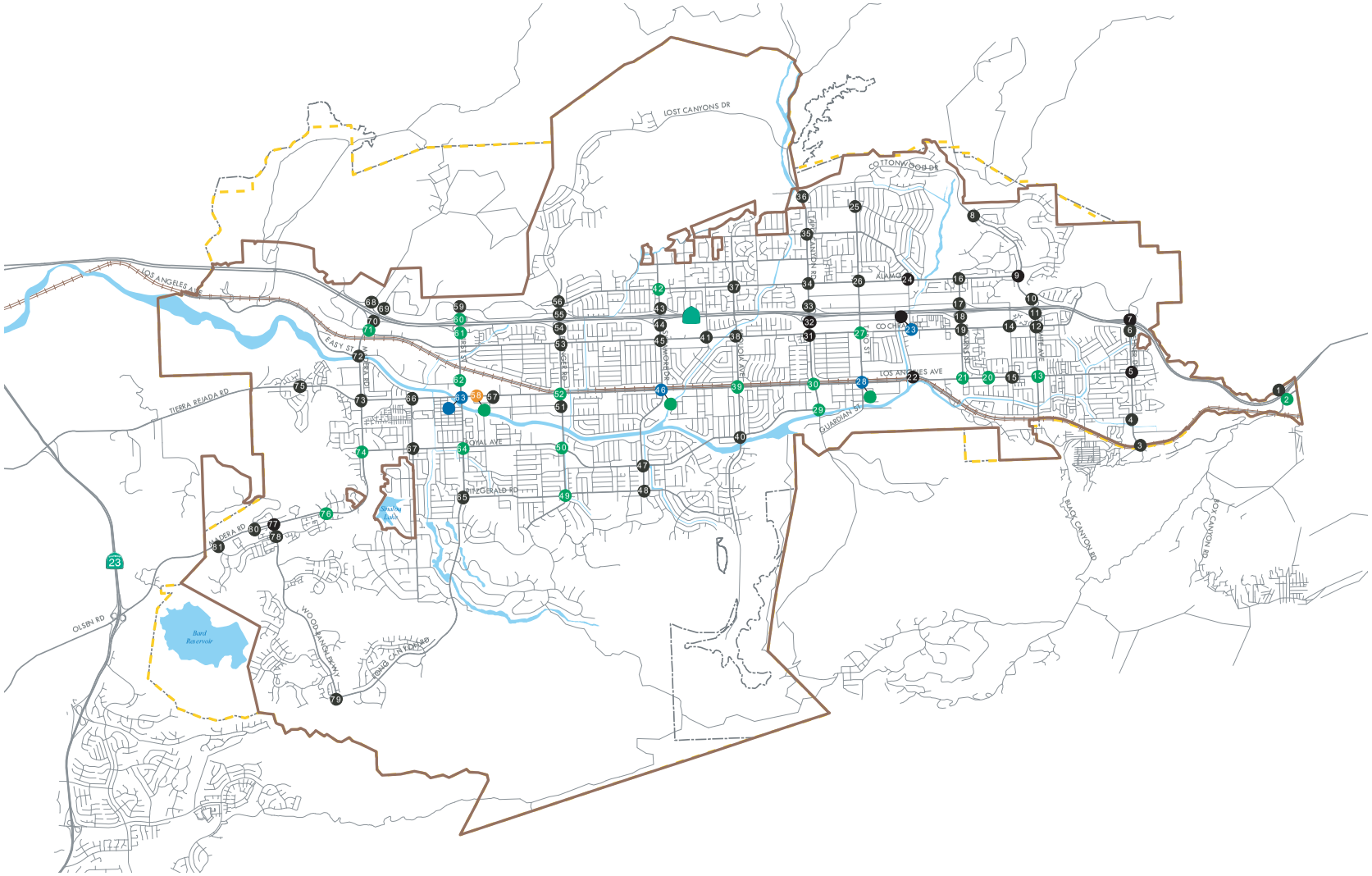
Miles
0 0.25 0.5 1 1.5

Figure 5

SIMI VALLEY 2030
General Plan Update

CITY of SIMI VALLEY General Plan Update

Updated General Plan Alternative Buildout Per SCAG Intersection Levels of Service



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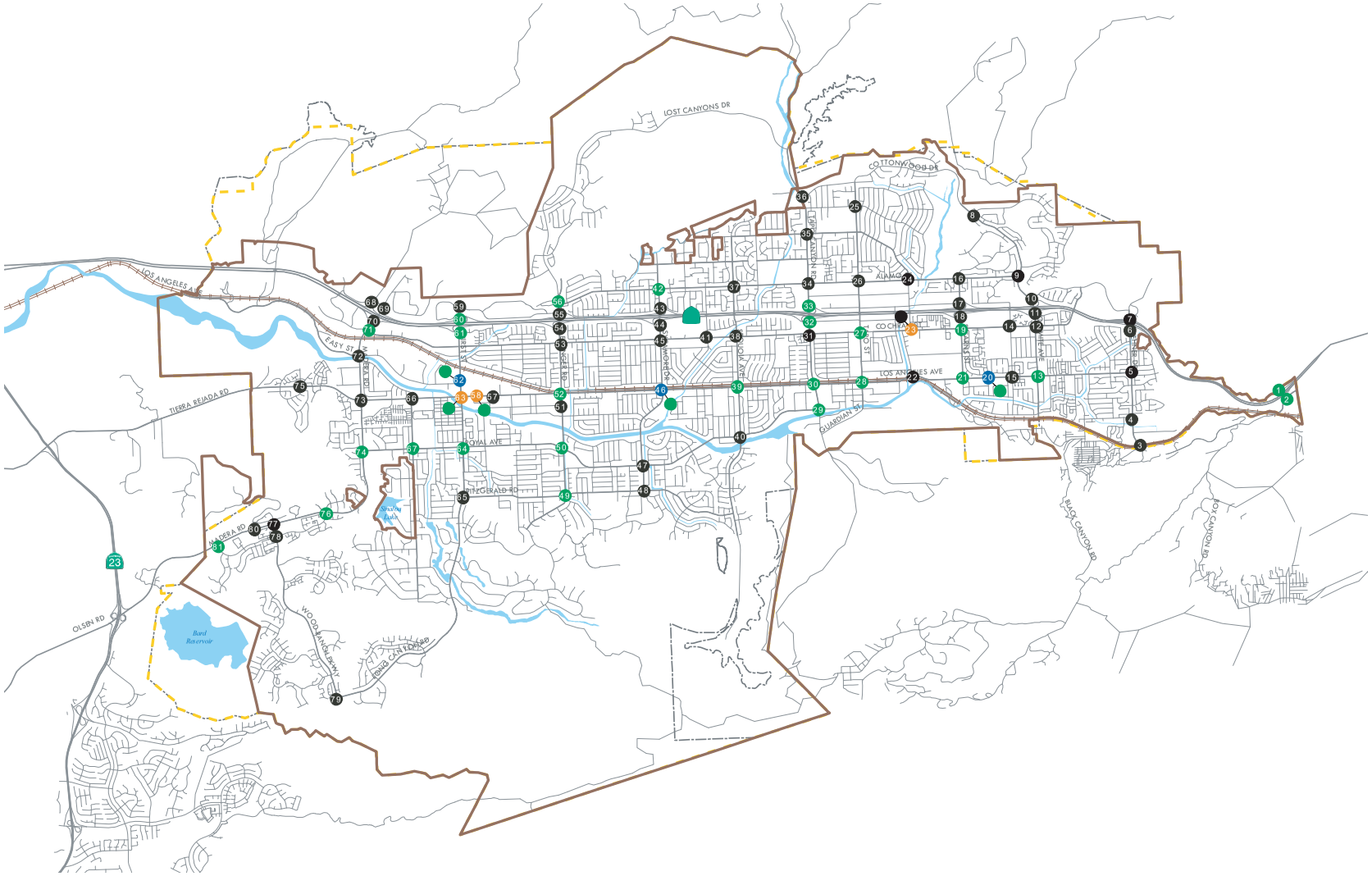
Miles
0 0.25 0.5 1 1.5

Figure 6

SIMI VALLEY 2030
General Plan Update

CITY of SIMI VALLEY General Plan Update

Updated General Plan Alternative Buildout Intersection Levels of Service



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Miles
0 0.25 0.5 1 1.5

Figure 7

Updated General Plan Buildout With Preferred Land Use Plan (See **Figure 8**)***:***

- 79 of the 81 analyzed intersections are projected to operate at LOS A, B or C during the AM peak hour, while 76 would operate at LOS A, B or C during the PM peak hour
- 3 intersections are projected to operate at LOS D during at least one of the peak hours
- The intersection of First Street and Los Angeles Avenue is projected to operate at LOS E during the PM peak hour.
- The intersection of Los Angeles Avenue and Patricia Avenue is projected to operate at LOS E during both peak hours.

Under this scenario, the following five intersections are projected to operate at LOS D or lower and would require additional improvements:

- Stearns Street / Los Angeles Avenue *(AM- LOS B; PM – LOS D)*
- Sycamore Drive / Los Angeles Avenue *(AM- LOS D; PM – LOS D)*
- Los Angeles Avenue and Patricia Avenue *(AM- LOS E; PM – LOS E)*
- First Street / Easy Street*(AM- LOS B; PM – LOS D)*
- First Street / Los Angeles Avenue *(AM- LOS C; PM – LOS E)*

A primary reason these intersections will require additional improvement is the intensification of development near the intersections. The proposed mixed-use developments will generate additional traffic locally, but reduce regional travel.

A summary list of the intersection operating conditions for all of the scenarios is provided in Appendix B.

a. Recommended General Plan Buildout Intersection Improvements:

Improvement options were developed for all of the future land use scenarios and analysis worksheets for each are provided in the Appendix. The following lists the proposed improvements for the Updated General Plan with the Preferred Land Use Plan.

Stearns Street / Los Angeles Avenue – Change the east/west traffic signal phasing to provide a protected left-turn phase.

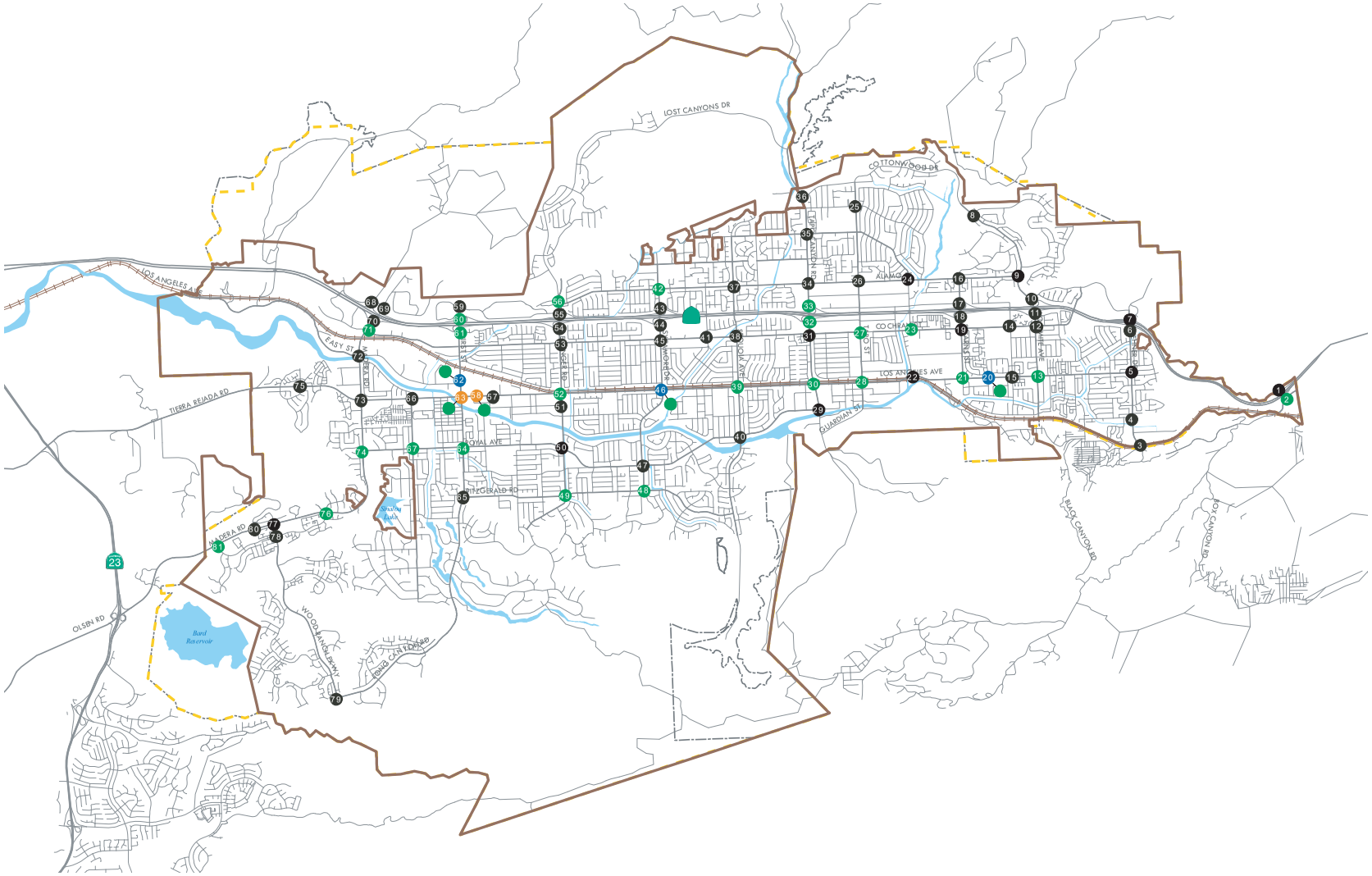
Kadota Street / Cochran Street – Install a traffic signal.

Sycamore Drive / Los Angeles Avenue – Restripe the westbound through/right-turn lane to a through lane and add a westbound right-turn lane.

SIMI VALLEY 2030
General Plan Update

CITY of SIMI VALLEY General Plan Update

Updated General Plan Buildout With Preferred Land Use Plan Intersection Levels of Service



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D21310_Simi_Valley_GP\Seismic_Geologic_Hazards.mxd

Miles
0 0.25 0.5 1 1.5

Figure 8

Los Angeles Avenue / Patricia Avenue – Change the north/south traffic signal phasing to protected/permissive phasing, restripe the northbound left/through/right-turn lane to a left-turn lane and add a northbound through-right turn lane, add a southbound lane to provide one left-turn lane, one through lane, and one right-turn lane, add an eastbound lane to provide one left-turn lane, two through lanes, one through-right turn lane, and one right turn lane, and add an exclusive westbound right turn lane.

First Street / East Easy Street – Add an exclusive northbound and southbound right-turn lane.

First Street / Los Angeles Avenue – Add an additional eastbound through lane

With the recommended intersection improvements all of the intersections are projected to operate at LOS C or better.

2. General Plan Buildout Roadway Segment Operating Conditions

Total traffic volumes show significant growth compared to the Year 2006 totals. Citywide traffic volumes are projected to increase by about 41 percent with this scenario. As shown in **Table 8**, Three segments are expected to operate at LOS D based on the traffic projections: Sycamore Drive between Alamo Street and Cochran Street (2 segments) and Erringer Road between SR 118 and Cochran Street. One segment is expected to operate at LOS E – First Street between Easy Street and Cochran Street.

As previously noted, The City of Simi Valley does not analyze the level of service for roadway segments to determine traffic impacts of a project. The LOS discussion analysis and discussion provided are included for comparative information only.

Table 8 – Summary of Roadway Segment LOS Operating Conditions

Roadway Segment Operations	*Existing 2006*	*Existing General Plan*	*Proposed Updated General Plan Per SCAG Forecast*	*Proposed Updated General Plan Buildout*	*Recommended Updated General Plan Buildout*
Total Analyzed Segments	123	123	123	123	123
Segments at LOS A or B	121	121	115	102	119
Segments at LOS C	1	2	5	12	9
Segments at LOS D	1	0	3	5	3
Segments at LOS E or F	0	0	0	4	1

Existing Year 2006 Roadway Segment Data:

- 122 of the 123 analyzed street segments are projected to operate at LOS A, B or C
- There is one segment operating at LOS D – Madera Road between West City Limits to Country Club Drive West.

Existing General Plan Buildout Roadway Segment Impacts:

- Traffic volumes show a moderate growth compared to the Year 2006 conditions with an overall Citywide growth of about 16 percent. In general there are no major differences in LOS conditions between the Existing Year 2006 conditions and the 2030 General Plan
- All 123 roadway segments will operate at LOS A, B or C, with one previously LOS D segment on Madera Road improving in operations to LOS B with proposed improvements.

Updated General Plan Alternative Per SCAG Forecast Roadway Segment Impacts:

- Total traffic growth with the proposed plan at this milestone is about 35 percent above existing levels.
- Three segments are projected to operate at LOS D based on the projections: Royal Avenue between Madera Road and Sinaloa Road; First Street between Cochran Street and Easy Street; and Erringer Road between SR 118 and Cochran Street.
- There are five segments that degrade from LOS A or B to LOS C.

Updated General Plan Alternative Buildout Roadway Segment Impacts:

- Total traffic volumes show significant growth compared to the Year 2006 totals and 2030 General Plan estimates. Citywide traffic volumes are projected to increase by about 55 percent with this scenario
- Four segments are expected to operate at LOS E or F based on the traffic projections: Royal Avenue between Madera Road and Sinaloa Road; Easy Street between Madera Road and First Street; First Street between Cochran Street and Easy Street; and Tapo Street between Cochran Street and Los Angeles Avenue
- The poor LOS on Easy Street and First Street segments is largely related to the large Business Park complex proposed for that planning area.
- Five segments are expected to operate at LOS D: First Street between Easy Street and Los Angeles Avenue; Erringer Road between SR 118 and Cochran Street; Sycamore Drive between Alamo Street and Cochran Street (2 segments); and Tapo Canyon Road between SR 118 and Cochran Street.
- There are 12 segments that degrade from LOS A or B to LOS C.

Buildout of Updated General Plan Roadway Segment Impacts:

- Total traffic volumes show significant growth compared to the Year 2006 totals and Recommended Updated General Plan Buildout estimates. Citywide traffic volumes are projected to increase by about 41 percent with this scenario.
- Three segments are expected to operate at LOS D based on the traffic projections: Sycamore Drive between Alamo Street and Cochran Street (2 segments) and Erringer Road between SR 118 and Cochran Street.
- One segment is expected to operate at LOS E – First Street between Easy Street and Cochran Street.

The segments of Erringer Road and Sycamore Drive that service the SR 118 ramps and along First Street between East Street and Cochran Street are affected more by intersection operating conditions rather than segment capacity since turn lanes, especially free-flow lanes, are not included in the segment capacity. The intersection analyses show that all of the intersections along these segments are projected to operate at acceptable levels of service in this scenario. Therefore, no improvements should be needed for these street segments.

a. Recommended General Plan Buildout Roadway Improvements:

The segments of Erringer Road and Sycamore Drive service the SR 118 ramps and are affected more by intersection operating conditions rather than segment capacity since turn lanes, especially free-flow lanes, are not included in the segment capacity. The intersection analyses show that all of the intersections along these segments are projected to operate at acceptable levels of service in this scenario. Therefore, no improvements should be needed for these street segments.

The Recommended Updated Plan shows redevelopment along the segment of First Street between Easy Street and Cochran Street. To achieve an acceptable LOS along this segment additional right-of-way should be acquired during any redevelopment in this area to provide an additional through lane.

b. SR 118 Operations

While the Updated Preferred Land Use Plan scenario will reduce the volume of traffic generated by the future land uses within the City and in turn improve operating conditions versus the previously Proposed Updated General Plan scenario, it will not reduce congestion along the SR 118 corridor to a level that would provide a good LOS on the highway within and adjacent to the City. However, it should be noted that SR 118 is a regional transportation corridor that is affected by traffic from beyond the City boundaries and future improvements to SR 118 are the responsibility of the State, rather than the City.

E. Other Improvement Strategies

1. Traffic Signals and Intelligent Transportation Systems (ITS)

One method for improving the capacity of existing streets and highway without extensive lane widening is the development of Intelligent Transportation Systems (ITS), or what is often referred to as "Smart Roads." These types of system alternatives include the following:

- Traffic signals that monitor traffic flow and adjust to the needs of traffic to reduce unnecessary delay
- Driver information systems that provide motorists with information on changing road conditions to allow them to avoid congested locations and use less congested alternative routes
- Video cameras that monitor intersections and roadway segments to identify developing conditions and identify potential problem conditions

The City's Traffic Operations Section, of the Department of Public Works currently manages the City's traffic and street system, such as operating, maintaining and upgrading the City's traffic signals; and timing and synchronizing traffic signals. The City has a total of 126 traffic signals, almost half of which are interconnected. Twelve of these intersections are controlled by Caltrans. Currently, no other ITS technologies are being utilized by the City.

The Traffic Engineering Division has also installed countdown pedestrian traffic signals at most signalized intersections throughout the City. Countdown pedestrian traffic signals display a timer when pedestrians are crossing the street to inform the pedestrian how many seconds are left before the signal begins to change. The primary goal is to inform pedestrians and minimize the number of occasions they are in an intersection when the traffic signal begins to change.

2. Trip Reduction and Travel Demand Management Measures

Transportation Demand Management (TDM) refers to the various measures adopted to change travel behavior to increase transportation system efficiency and also to achieve reduction in vehicle trips and therefore congestion, energy and fuel. TDM effectiveness depends upon many factors other than just the actual strategies implemented (e.g., promoting transit works well in areas with good transit service). TDM on its own cannot resolve traffic congestion problems; however, it can have a significant impact on travel. Most demand management programs can reduce travel by 0 to 5 percent; however, the most aggressive TDM strategies can reduce vehicle trips up to 10 to 20 percent. At the same time, it is important to recognize that the goals for demand-side programs often extend beyond reducing the number of vehicle trips to include mobility, accessibility, environmental, and other outcomes.

The City of Simi Valley, through its Municipal Code (Chapter 9, Section 39.020), has established a Transportation Demand Management (TDM) program. Per this program, prior to approval of any development project, the applicant is required make provision for, at a minimum, all of the following applicable transportation demand management and trip reduction measures:

- Nonresidential Developments

Containing fifty (50) or more employees shall provide:

(i) A bulletin board, display case, or kiosk displaying transportation information shall be located where the greatest numbers of employees are likely to see it.

Containing 100 or more employees shall provide all of the above and the following:

(i) *Preferential parking.* A portion of the total number of required parking spaces shall be reserved for use by potential carpool or vanpool vehicles and shall be located as close as is practical to the employee entrance(s) without displacing accessible parking for the disabled and customer parking needs.

(ii) This preferential carpool/vanpool parking shall be identified on the site plan upon application for a building permit.

(iii) A statement that preferential carpool/vanpool spaces for employees are available and a description of the procedure for reserving these spaces shall be displayed at the required transportation information center.

(aa) Carpool/vanpool parking spaces shall be adequately signed and striped and shall be supplied as employee demand warrants; provided, at least one space for projects of 50,000 to 100,000 square feet and two (2) spaces for projects over 100,000 square feet shall be signed and striped for carpool and vanpool vehicles at all times; and

(ab) Preferential parking spaces reserved for vanpools shall be accessible to vanpool vehicles.

Containing 150 or more employees are to provide all of the above and the following:

(i) If determined necessary by the City to mitigate development impacts, bus stop improvements (e.g., benches, shelters, and turnouts) shall be provided.

(ii) The location of the bus stops and structure entrances shall be planned and designed to provide safe and efficient pedestrian access.

(iii) Initial determinations of bus stop improvements shall be made by the City's Transit Administrator as identified in Section 9-50.060(c) of this title.

- **Residential developments**

Containing 500 dwelling units or more shall ensure that the development's design incorporates uses that would reduce home-based vehicle trips and vehicle miles traveled, provided:

(i) The provision of these uses complies with Chapter 9-24 (Residential and Open Space Zoning Districts) of the Municipal Code; and

(ii) The provision of these uses within the development would not result in a duplication of any uses which may already be planned or in existence within a one-quarter mile radius of the perimeter of the development.

- **Pedestrian and bicycle access**

All projects to which any of the foregoing provisions of this chapter apply shall also be subject to demonstrating safe and convenient access and circulation for pedestrians and bicyclists as determined by a review of the project by the Commission and/or the Council.(§ 5, Ord. 1085, eff. January 6, 2006).

- **Monitoring**

All development to which any of the provisions of this chapter are applicable shall be subject to monitoring measures (e.g., submission of site plans).

F. Bikeways and Trails

The 2008 Bicycle Master Plan identified safety, access, quality of life, and an effective implementation program as four key issues to making Simi Valley a bicycle friendly city. The Plan identifies over 10 miles of Class I bikeways, 21 miles of Class II, and nearly 28 miles of Class III bikeways as part of the recommended Plan. The bikeway facility types proposed are:

Class I—Bike Paths: Class I bicycle or multi-use paths separate from roadways, with at-grade or grade-separate roadway crossings. Bike paths are typically located along long uninterrupted corridors such as rivers, creeks, flood control channels, railroad rights-of-way, etc.

Sidewalk Paths: Although not a designated bikeway classification type specified in the Caltrans manual Chapter 1000, the City of Simi Valley has several sidewalk paths that were built with bicycling in mind. These typically are sidewalks that are slightly wider than normal sidewalks, and are intended for a mix of pedestrian and bicycle traffic.

Class II Bike Lanes: Striped bicycle lanes located to the right of each direction of vehicle traffic along a roadway. Bike lanes are typically located along collector and arterial roadways that provide connections through the City street system.

Class III Bike Routes: Roadways that provide shared use with pedestrian or motor vehicle traffic and are identified only by bike route signing. Bike routes are typically along high demand corridors.

More details on the Plan and its recommendations are provided in the *Simi Valley Bicycle Master Plan*, December 2008.

G. Park and Ride Facilities

As the commuter population grows, so does the need for parking stalls at Park and Ride facilities. The provision of sufficient stalls ensures the success of commuter programs and commuter transit service. As shown in **Table 9**, there are 9 park and ride lots in various locations throughout the City, totaling 2,276 parking spaces. With the future addition of a second Metrolink train station (Mountain Gate) the City will continue to monitor and review the need to provide additional park and ride facilities to service that facility.

Table 9 – Park and Ride Facilities	
Lot Location	***Number of Spaces***
2449 Stearns Street-Swank's Chevron	36
2501 Stearns Street, adjacent to Route 118. 6 bike lockers	57
Tapo Canyon Road adjacent to Route 118	72
2599 Sycamore, adjacent to Route 118	64
Erringer Road & 118 Freeway	67
St. Peter Claver Catholic Church, 2380 Stow Street, adjacent to route 118	295
3041 Cochran Street-Farmers Insurance	1,079
5050 Los Angeles Avenue, west of Stearns, Bus Service: Simi Valley Transit routes A and B, Metrolink	606

H. Public Transit

Public transit service in Simi Valley includes local fixed-route bus service, commuter bus service, commuter rail lines, and paratransit services. The existing transit routes in the study area are illustrated in **Figure 9** (Bus Routes).

1. Local Fixed-Route Services

The Simi Valley Transit Division operates eleven buses along four fixed-routes and provides service connections to Chatsworth, as well as to VISTA-EAST (Ventura Intercity Service Transit Authority), which provides connections to other Ventura County communities. The routes also provide connections to Metro system and to Metrolink commuter trains. Bus stops are located approximately ¼ to ½ mile apart along routes within Simi Valley. The service is provided Monday through Saturday from approximately 5:00 A.M. to 8:00 P.M. and does not operate on Sundays. Fixed routes carry approximately 480,457 passengers per year. The following fixed-routes provide services within Simi Valley:

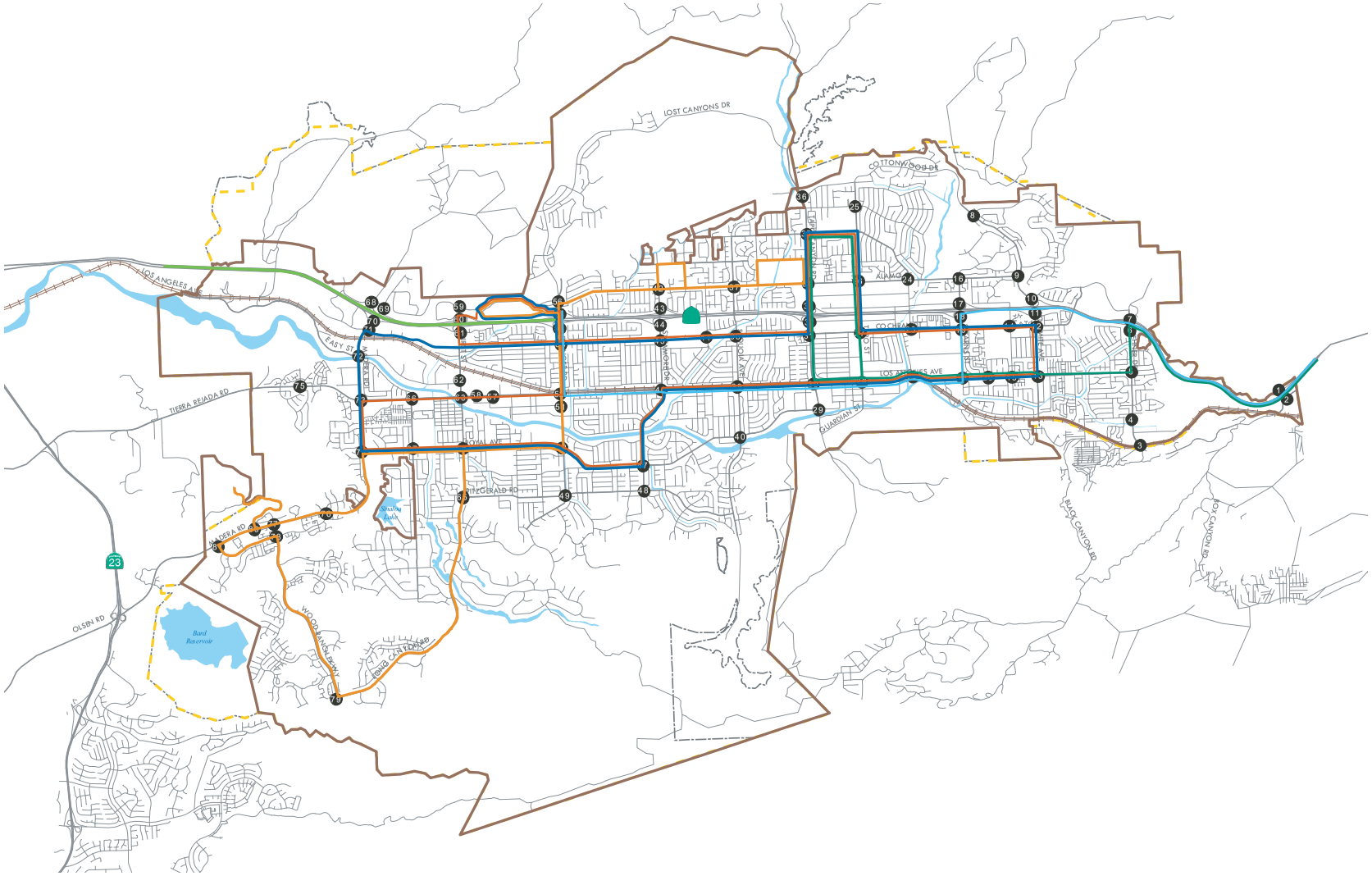
Route A: Route A operates around the Simi Valley Town Center in a clockwise direction on Madera Road, Royal Avenue, Sycamore Drive, Los Angeles Avenue, Yosemite Avenue, and Cochran Street. The Route has several stops primarily via Erringer Road, Simi Valley Town Center, Cochran Street, Civic Center, Tapo Canyon Road, Stearns Street, and Yosemite Avenue connecting all industrial areas with residential tracts and commercial facilities. It also connects to the Simi Valley Metrolink/Amtrak Station.

Route B: Route B is very similar to Route A with few different stops on Cochran Street rather than Los Angeles Avenue and runs in a counterclockwise direction and also connects to the Simi Valley Metrolink/Amtrak Station.

SIMI VALLEY 2030
General Plan Update

CITY of SIMI VALLEY General Plan Update

Transit Routes



Legend

- Sphere of Influence
- City Urban Restriction Boundary
- City Boundary
- Water Body
- Major Road
- Railroad
- Simi Valley Transit Route A
- Simi Valley Transit Route B
- Simi Valley Transit Route C
- Simi Valley Transit Route D
- LADOT Commuter Express
- VISTA- East
- Metrolink Station

Source: Ventura County, 2003
Date Revised: December 16, 2009
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Miles
0 0.25 0.5 1 1.5

Figure 9

Route C: Route C provides a roundtrip service from the Civic Center in Simi Valley to the Metrolink Station in Chatsworth. It also connects to the Metrolink Station in Simi Valley.

Route D: Route D operates between Simi Valley Town Center, Simi Valley Hospital, and Ronald Reagan Presidential Library.

2. Paratransit Services

Simi Valley Transit operates Dial-A-Ride (DAR) service within the planning area, providing curb-to-curb van service to seniors and disabled persons. DAR service is provided Monday through Saturday from approximately 5:00 A.M. to 8:00 P.M.

3. Regional Routes

VISTA-EAST: Ventura Intercity Service Transit Authority or VISTA-EAST provides roundtrip service between Simi Valley and Westlake via Moorpark College, Moorpark, and Thousand Oaks and operates from 6:00 A.M. to 7:00 P.M., Monday through Friday, and from 7:00 A.M. to 6:00 P.M. on Saturday.

4. Commuter Service

Commuter service in the City of Simi Valley is provided by bus and rail lines. The services are described below.

a. Bus and Van-Pool Services

Commuter Express

Line 575

Los Angeles Department of Transportation (LADOT) Commuter Express Line 575 runs between Simi Valley and Warner Center via Chatsworth. The route primarily includes Lassen Street, De Soto Avenue and Victory Boulevard. It has stops at several commercial/industrial areas and Kaiser Permanente Medical Center at Warner Center.

Ridesharing

The City of Simi Valley participates in an internet rideshare and vanpool matching service, "RideMatch.info," operated through a joint partnership of the Los Angeles County Metropolitan Transportation Authority, the Orange County Transportation Authority, Riverside County Transportation Commission, San Bernardino Associated Governments, and the Ventura County Transportation Commission.

b. Rail

Metrolink

Metrolink provides passenger service to Simi Valley. The Ventura County Line serves the Simi Valley Metrolink Station, located along Los Angeles Avenue, between Tapo and Stearns Streets. Currently, the Ventura County Line operates six trains in the morning hours and two trains in the evening hours to Los Angeles and two trains in the morning hours and six trains in the evening hours from Los Angeles on weekdays.

The new Mountain Gate transit station is being planned for north of Los Angeles Avenue between First Street and Erringer Road. This station would provide improved transit access for the west side of the City, especially the proposed mixed-use developments along Los Angeles Avenue and First Street.

Amtrak

The City is also served by two Amtrak train routes. The Pacific Surfliner serves communities on the coast of Southern California between San Diego and San Luis Obispo. The Coast Starlight connects Los Angeles Union Station to Seattle, Washington. Fourteen Pacific Surfliner trains (seven southbound and seven northbound), and two Coast Starlight trains serve the Simi Valley station daily.

c. Taxi

Taxi service in the City is provided by a series of private companies.

I. Goods Movement

1. Rail Freight

The Union Pacific Transportation Company provides daily intra-state and trans-continental rail freight service from its coast line which runs from the Santa Barbara County line along the coast south through the cities of Ventura, Oxnard, Camarillo, Moorpark, and finally Simi Valley to the Los Angeles County line for a distance of 48.9 miles. On average, eight to twelve freight trains pass through the City of Simi Valley every day.

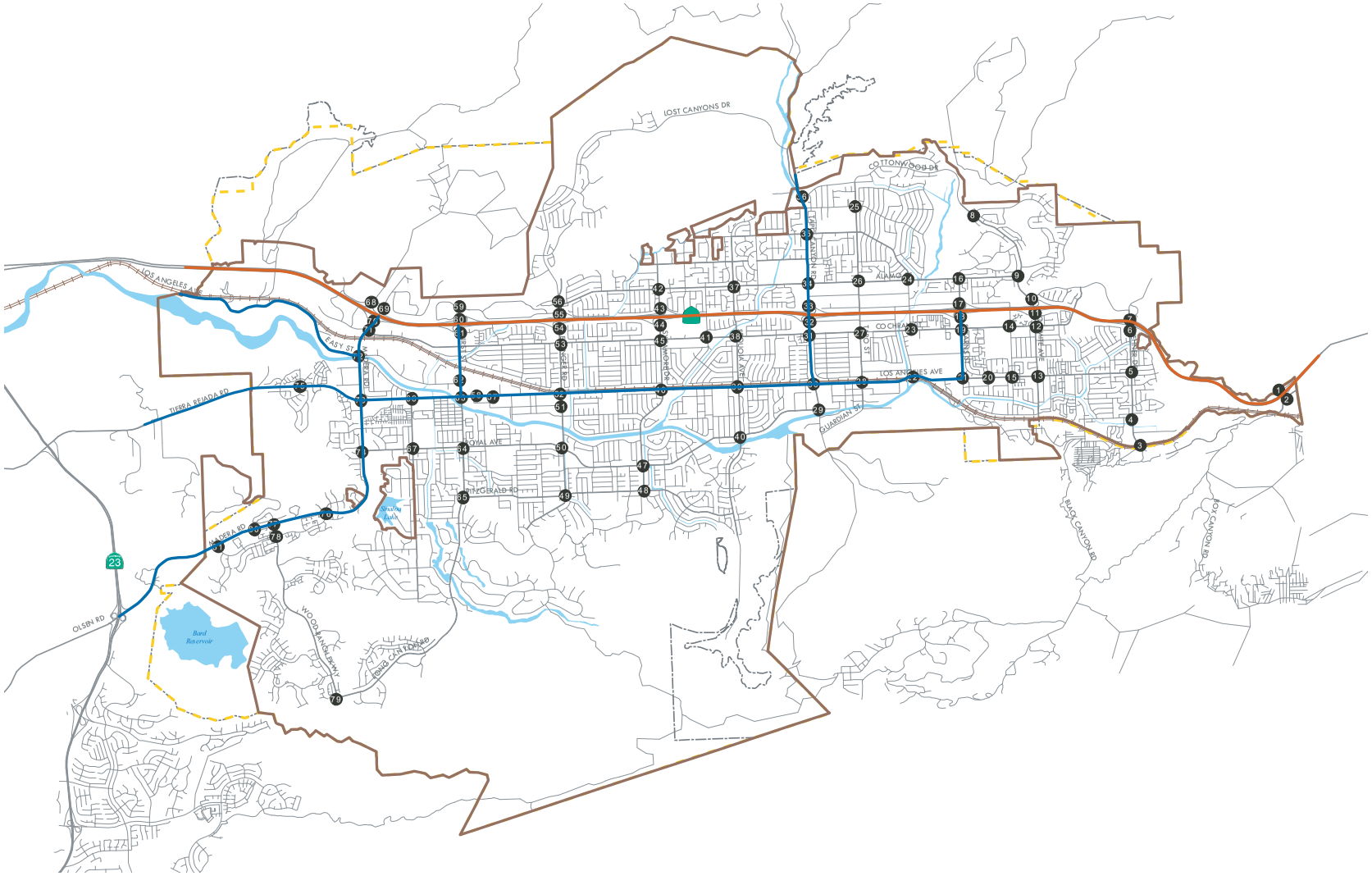
2. Trucking

The City of Simi Valley designated truck routes are illustrated in **Figure 10** (Truck Routes). These designated routes are identified with street signs to guide truck traffic through the City. The City has generally utilized arterial streets as designated truck routes in an attempt to restrict heavy weight vehicles away from residential neighborhoods. This was done to decrease the amount of air and noise pollution to which City residents may be exposed. Two east/west corridors mainly serve as truck routes:

SIMI VALLEY 2030
General Plan Update

CITY of SIMI VALLEY General Plan Update

Truck Routes



Legend

- Sphere of Influence
- City Urban Restriction Boundary
- City Boundary
- Water Body
- Major Road
- Railroad
- Hazardous Waste Material Route and Truck Route
- Truck Route

Source: Ventura County, 2003
Date Revised: December 16, 2009
D21310_Simi_Valley_GP\Seismic_Geologic_Hazards.mxd

Miles
0 0.25 0.5 1 1.5

Figure 10

- Los Angeles Avenue from west City limits to Stearns Street
- SR 118 freeway which is also designated as Hazardous Waste Material Route

The north/south truck routes include the following:

- Madera Road from south City limit to SR 118
- First Street from Los Angeles Avenue to SR 118
- Tapo Canyon Road from Los Angeles Avenue to Presidio Drive
- Stearns Street from Los Angeles Avenue to SR 118

5. APPENDIX

Appendix A – Roadway Levels of Service
Appendix B – Intersection Volume-to-Capacity Ratios
Appendix C – List of Intersection Improvement Measures
Appendix D – Street Standards, Definitions, and Circulation Table
Appendix E – Intersection Peak-Hour Traffic Counts
Appendix F – Roadway Segment Traffic Counts
Appendix G – Existing Conditions Intersection Capacity Analyses
Appendix H – Existing Conditions Intersection Capacity Analyses
Appendix I – Future Conditions Intersection Capacity Analyses – Existing General Plan Buildout
Appendix I – Future Conditions Intersection Capacity Analyses – Updated General Plan Alternative Buildout
Appendix H – Future Conditions Intersection Capacity Analyses – Updated General Plan Alternative per SCAG
Appendix I – Future Conditions Intersection Capacity Analyses – Updated General Plan With Preferred Land Use Plan

Appendices to the Traffic Study are available for review at:

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