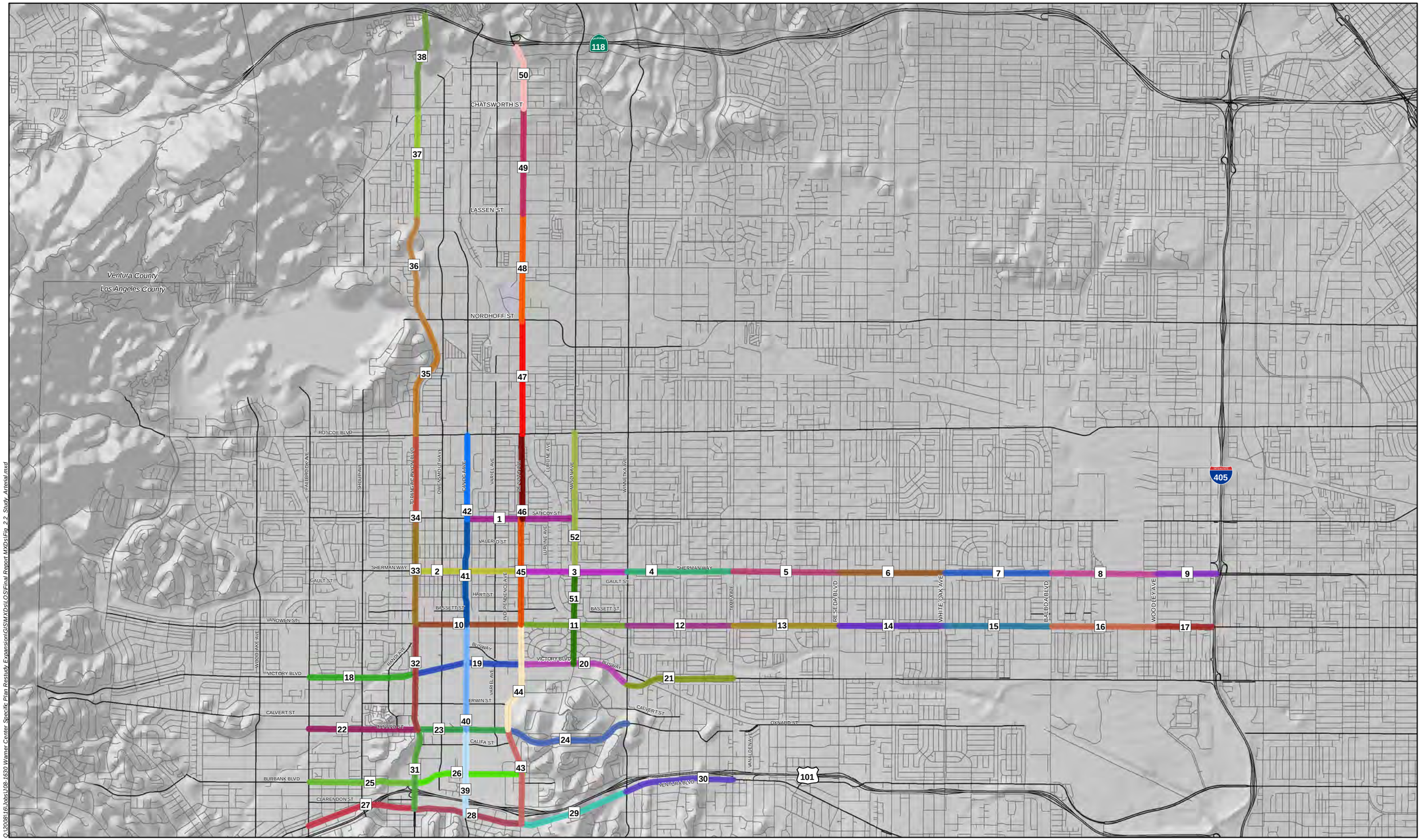

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Figure 4.12-2
Study Arterial Segments

- Winnetka Avenue and US -101 EB
- Tampa Avenue and US -101 WB
- Tampa Avenue and US -101 EB
- Vanalden Avenue/ US -101 EB and Ventura Boulevard
- Reseda Boulevard and US -101 WB
- Reseda Boulevard and US -101 EB

- *San Diego Freeway (I-405)* – a major north-south freeway that connects the San Fernando Valley and points north to the west side of Los Angeles and south to Long Beach and Orange County. The freeway varies between four to five general-purpose lanes and one High Occupancy Vehicle (HOV) lane in each direction, with several sections having auxiliary lanes. Because of its distance from the WCRCCSP area, no access points to/from the I-405 Freeway were included in the intersection analysis for this study; however, the following arterial segment is analyzed and includes access to/from the I-405 Freeway:

    - Sherman Way – Woodley Avenue to I-405 NB On/Off Ramp

- *Ronald Reagan Freeway (SR-118)* – a major east/west freeway that traverses the northern San Fernando Valley. The freeway varies four general-purpose lanes and one HOV lane in each direction. Because of its distance from the WCRCCSP area, no access points to/from the I-405 Freeway were included in the intersection analysis; however, the following arterial segments include access points to the SR-118 Freeway and are included in the analysis:

    - DeSoto Avenue – Chatsworth Street to SR-118 EB On/Off Ramp
    - Topanga Canyon Boulevard – Chatsworth Street to SR-118 EB On/Off Ramp

Roadway Network

Most daily travel (in terms of total vehicle miles traveled) in the study area occurs on surface streets. The significant roadways within the study area are described below:

Significant East/West Roadways

- *Ventura Boulevard* – a major arterial roadway that closely parallels the Ventura Freeway through most of the study area. The roadway has two to three lanes in each direction and is divided by a two-way turn lane median or a dedicated left turn pocket throughout most of the study area. The street is included in the Los Angeles County Congestion Management Program (CMP) Roadway System.

- *Burbank Boulevard* – a secondary/minor arterial street from Woodlake Avenue to DeSoto Avenue within the study area. Burbank Boulevard ranges from one to three lanes in each direction, with the widest segment between Canoga Avenue and DeSoto Avenue, where it terminates. The narrowest between Fallbrook Avenue and Topanga Canyon Boulevard. A two-way turn lane median divides the roadway for much of its length through the study area.

- *Calfia Street* – a collector street with one to two lanes in each direction from the western termini of Topanga Canyon Boulevard to the eastern termini of DeSoto Avenue. The street is divided by a center median or dedicated left turn lane from Topanga Canyon Boulevard to Canoga Avenue.

- *Oxnard Street* – a secondary/minor arterial street from Fallbrook Avenue to Topanga Canyon Boulevard. This segment is divided by a turn lane median for most of its length and a raised median island from Topanga Canyon Boulevard to Canoga Avenue. East of Topanga Canyon Boulevard to De Soto Avenue it is upgraded to a major arterial roadway (Major Highway Class II). East of De Soto Avenue it is downgraded to a collector street with one lane in each direction and a median.

- *Calvert Street* – a neighborhood collector street with one lane in each direction. The street is discontinuous throughout the study area.

- *Erwin Street* – a collector street with endpoints at Shoup Avenue and DeSoto Avenue. The street has two lanes in each direction and is generally divided by a two-way left turn lane.

- *Victory Boulevard* – a major arterial roadway that is currently three lanes in each direction east of Topanga Canyon Boulevard and two lanes in each direction to the west of Topanga Canyon Boulevard. The street is generally divided by two way turn lane. Victory Boulevard is heavily travelled by commuters, as it is the only high capacity and continuous east/west corridor passing through Warner Center and continuing through the San Fernando Valley. The roadway is included in the Los Angeles County Congestion Management Program (CMP) Roadway System and the widening of Victory Boulevard between Topanga Canyon Boulevard and DeSoto Avenue to 4 lanes in each direction is funded. The widening of is assumed to be completed for the purposes of the year 2035 traffic analysis of this study.

- *Vanowen Street* – a major arterial roadway through the WCRCCSP area, between Topanga Canyon Boulevard and DeSoto Avenue, along the northern limits of the WCRCCSP area. The roadway is secondary/minor arterial outside of the WCRCCSP area, where it has two lanes in each direction and is generally divided by a two-way left turn lane.

- *Bassett Street* – a collector street with one lane in each direction. The street is discontinuous and provides neighborhood access at arterial roadways throughout the study area.

- *Hart Street* – a collector street east of Canoga Avenue and a local street west of Canoga Avenue with one lane in each direction. The street is discontinuous and provides neighborhood access at arterial roadways throughout the study area.

- *Gault Street* – a local street with one lane in each direction. The street is discontinuous and provides neighborhood access at arterial roadways throughout the study area.

- *Sherman Way* – a major arterial roadway, to the west of Variel Avenue the street is two lanes in each direction with a center two-way turn lane. East of Variel Avenue the street widens to three lanes in each direction and is divided by a landscaped median.

- *Valerio Street* – a collector street with one lane in each direction. The street is discontinuous throughout the study area

- *Saticoy Street* – a secondary/minor arterial street, the street consists of two lanes in each direction. The street provides a two-way left turn lane as the center median intermittently throughout its length.

- *Roscoe Boulevard* – a major arterial roadway, east of Topanga Canyon Boulevard the street consists of three lanes in each direction with a two-way median turn lane. To the west of Topanga Canyon Boulevard, the street narrows to two lanes in each direction while retaining its median turn lane.

- *Parthenia Street* – a secondary/minor arterial street with two lanes in each direction. The street is generally divided by a two-way turn lane.

- *Nordhoff Street* – A major arterial street with three lanes in each direction. The street is divided by a two-way turn lane.

Significant North/South Roadways

- *Woodlake Avenue* – a secondary/minor arterial street with one lane in each direction to the south of Victory Boulevard, and two lanes in each direction to the north of Victory Boulevard. Woodlake Avenue is discontinuous at the Los Angeles River, between Vanowen Street and Sherman Way. The street's northern limit is just north of Roscoe Boulevard and its southern limit is Ventura Boulevard.

- *Fallbrook Avenue* – a major arterial street with two lanes plus a bike lane in each direction. The street is continuous from north of Roscoe Boulevard to south of the Ventura Freeway at Crespi Street.

- *Shoup Avenue* – a secondary/minor arterial street with two lanes in each direction. The street is continuous from Roscoe Boulevard to Avenue San Luis, south of the Ventura Freeway.

- *Randi Avenue / Nevada Avenue / Kittridge Street* – a neighborhood collector street that is one lane in each direction. The street is north/south in orientation between Oxnard Street and Victory Boulevard and northeast/southwest between Victory Boulevard and Topanga Canyon Boulevard. Kittridge Street also runs north/south from Vanowen Street, switching to east/west as it crosses Variel Avenue and DeSoto Avenue, terminating east of DeSoto Avenue.

- *Hanna Avenue* – A neighborhood local street with one lane in each direction. The street provides neighborhood access between Victory Boulevard and Randi Avenue.

- *Topanga Canyon Boulevard (State Highway 27)* – a California state highway and a major arterial. The roadway runs from the Pacific Coast Highway at Topanga State Beach and ends at the Ronald Reagan Freeway (SR-118). Topanga Canyon Boulevard runs along the western border of the WCRCCSP Area, where it has three lanes northbound and two lanes

southbound. The roadway is heavily travelled by commuters and is part of the Los Angeles County CMP network.

- *Jordan Avenue* – a local street with one lane in each direction. The street's limits are the Los Angeles River and the Elkwood Street, north of Saticoy Street.

- *Owensmouth Avenue* – a collector street with one to two lanes in each direction. Owensmouth Avenue is generally two lanes in each direction within the WCRCCSP Area, and eventually narrows to one lane in each direction north of the Specific Plan Area. The roadway is continuous throughout the greater study area; however it ends within Warner Center, and thus lacks any access to the major transportation facilities to the south, such as the Ventura Freeway and Ventura Boulevard.

- *Remmet Avenue* – a local street with one lane in each direction. Remmet Avenue runs from Bassett Street just north of the Los Angeles River to Saticoy Street, providing neighborhood access to and from arterials.

- *Canoga Avenue* – a major arterial with three lanes in each direction between Ventura Boulevard and Victory Boulevard, and two lanes in each direction between Vanowen Street and Victory Boulevard (it is a Major Highway Class II between Victory Boulevard and Vanowen Street and will add a third lane in each direction as part of the plan). Canoga Avenue is a minor secondary arterial with one to two lanes in each direction, to the north and south of these limits. In total, the roadway runs continuously from its northern terminus at Marilla Street just south of Lassen Street, and extends into the neighborhoods far south of Ventura Boulevard, eventually terminating at Dumetz Street.

- *Variel Avenue* – a collector street with one lane in each direction. Variel Avenue is discontinuous through the WCRCCSP area (it does not cross the Los Angeles River nor the Metro Orange Line Busway) with two lanes in each direction between Victory Boulevard and Oxnard Street.

- *Independence Avenue* – a local street with one lane in each direction. Independence Avenue is discontinuous throughout the study area.

- *DeSoto Avenue* – a major arterial roadway that runs along the eastern border of the WCRCCSP area. The roadway is continuous from Ventura Boulevard to the Ronald Reagan Freeway (SR-118). From Ventura Boulevard to Devonshire Street, DeSoto Avenue is three lanes in each direction and is divided by a two-way turn lane. North of Devonshire Street the road narrows in the southbound direction to two lanes, and north of Chatsworth Street the road is two lanes in each direction, with the median turn lane maintained throughout. DeSoto Avenue serves heavy commuter traffic at the WCRCCSP area boundaries and serves as a major connection between the Ventura Freeway (US-101) and major east/west arterials, primarily Victory Boulevard. (Between Victory and the 101 Freeway, De Soto is planned to be four lanes in each direction but it is not fully funded.)

- *Lurline Avenue / Fairchild Avenue* – a collector street with two lanes in each direction. The street provides access from Sherman Way and DeSoto Avenue to surrounding

neighborhoods. (Fairchild Avenue is a local street. Lurline to Enadia Way to Irondale Avenue to Hart Ave are collector streets that connect to Sherman Way and De Soto Avenue.)

- *Mason Avenue* – a secondary/minor arterial street with two lanes in each direction, divided by a two way turn lane. Mason Avenue runs continuously between Victory Boulevard and the Ronald Reagan Freeway (SR-118).

- *Winnetka Avenue* – a major arterial roadway with two lanes in each direction from Ventura Boulevard to Nordhoff Street, and widening to the three lanes in each direction from Nordhoff Street to its northern terminus at Devonshire Street. Winnetka Avenue also serves as a collector street with one lane in each direction south of Ventura Boulevard.

- *Corbin Avenue* – a secondary/minor arterial street. In its southern segments from Ventura Boulevard to the Orange Line Busway, Corbin Avenue consists of one lane in each direction with a median two-way turn lane. North of the Orange Line Busway to Sherman Way the street widens to two lanes in each direction with an intermittent median turn lane.

- *Tampa Avenue* – a major arterial roadway. Between Ventura Boulevard and Victory Boulevard Tampa Avenue provides three lanes northbound and two lanes southbound, divided by a two-way turn lane. North of Victory Boulevard, the road briefly narrows to two lanes in each direction to cross the Los Angeles River and then widens to three lanes in each direction to the Ronald Reagan Freeway (SR-118). Tampa Avenue maintains a two-way median turn lane south of Devonshire Street, and to the north of Devonshire Street within the study area it is divided by a raised median.

- *Reseda Boulevard* – a major arterial roadway from Ventura Boulevard to its terminus north of the Ronald Reagan Freeway (SR-118) at Senson Avenue. It is generally divided by a two-way median turn lane throughout the study area.

Existing Intersection Levels of Service

Existing roadway geometrics were collected by field observations and are shown in **Appendix G.1**. Detailed AM and PM peak period turning movement traffic counts were collected at all study intersections. Count data was collected during May, June and October of 2007, and January and October of 2008. The turning movement data is found in **Appendix G.1**. All original traffic count data is summarized in **Appendix G.5.** Current conditions at the study intersections were analyzed using the Circular 212 Planning Analysis Methodology (per LADOT guidelines). The Circular 212 Planning Methodology, through the use of TRAFFIX 7.9 software, identifies a rating of conditions at an intersection based on critical movement's volume to capacity ratio (V/C) created by motorists traveling through the intersection. Levels of service range from LOS A (free flow conditions) to LOS F (extreme congestion with very significant delay). **Table 4.12-3** describes the general operating conditions corresponding with each LOS rating.

TABLE 4.12-3:
INTERSECTION LOS DEFINITIONS

LOS	V/C	Operating Conditions
A	0.00 – 0.60	At LOS A, there are no cycles that are fully loaded, and few are even close to loaded. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turning movements are easily made, and nearly all drivers find freedom of operation.
B	>0.60 – 0.70	LOS B represents stable operation. An occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel somewhat restricted with platoons of vehicles.
C	>0.70 – 0.80	In LOS C stable operation continues. Full signal cycle loading is still intermittent, but more frequent. Occasionally drivers may have to wait through more than one red signal indication, and back-ups may develop behind turning vehicles.
D	>0.80 – 0.90	LOS D encompasses a zone of increasing restriction, approaching instability. Delays to approaching vehicles may be substantial during short peaks within the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive back-ups.
E	>0.90 – 1.00	LOS E represents the most vehicles that any particular intersection approach can accommodate. At capacity (V/C = 1.00) there may be long queues of vehicles waiting upstream of the intersection and delays may be great (up to several signal cycles).
F	>1.00	LOS F represents jammed conditions. Back-ups from location downstream or on the cross street may restrict or prevent movement of vehicles out of the approach under consideration; hence, volumes carried are not predictable. V/C values are highly variable, because full utilization of the approach may be prevented by outside conditions.

Source: 2004 Congestion Management Plan for Los Angeles County.

Table 4.12-4 presents a summary of existing 2008 intersection LOS for the AM and PM peak hours. The overall peak is reached during the PM peak hour. During the PM peak, 122 intersections are presently operating at the acceptable LOS D or better, 16 are currently operating at LOS E, and 14 are failing at LOS F. The V/C and corresponding LOS for all 152 study intersections are shown in **Table 4.12-5**. **Figures 4.12-3** and **4.12-4** show the intersections and corresponding LOS.

The complete LOS calculation worksheets are included in **Appendix G.2**.

TABLE 4.12-4:
EXISTING INTERSECTIONS PEAK HOUR LOS SUMMARY

Peak Hour	Total Intersections in Each LOS Category					
	A	B	C	D	E	F
AM	62	22	22	28	10	8
PM	56	22	25	19	16	14

TABLE 4.12-5:
EXISTING INTERSECTIONS PEAK HOUR OPERATING CONDITIONS

		AM		PM	
Int. #	**Name**	**LOS**	**V/C**	**LOS**	**V/C**
1	**Topanga Canyon Blvd and Vanowen St**	C	0.743	**F**	**1.066**
2	Canoga Ave and Vanowen St	D	0.818	E	0.940
3	De Soto Ave and Vanowen St	D	0.810	E	0.979
4	Topanga Canyon Blvd and Victory Blvd	C	0.763	E	0.990
5	Canoga Ave and Victory Blvd	B	0.671	E	0.946
6	De Soto Ave and Victory Blvd	D	0.819	E	0.984
7	Topanga Canyon Blvd and Erwin St	A	0.564	C	0.747
8	Owensmouth Ave and Erwin St	A	0.453	A	0.563
9	Canoga Ave and Erwin St	A	0.536	B	0.650
10	Variel Ave and Erwin St	A	0.290	A	0.364
11	De Soto Ave and Erwin St	B	0.697	A	0.548
12	Topanga Canyon Blvd and Oxnard St	B	0.667	D	0.846
13	Canoga Ave and Oxnard St	A	0.541	B	0.694
14	De Soto Ave and Oxnard St	D	0.820	C	0.711
15	Topanga Canyon Blvd and Califa St	A	0.454	B	0.620
16	Owensmouth Ave and Califa St	A	0.288	A	0.364
17	Canoga Ave and Califa St	A	0.489	B	0.669
18	De Soto Ave and Califa St	C	0.744	B	0.631
19	101 Ventura Fwy WB and Burbank Blvd	B	0.610	A	0.578
20	Topanga Canyon Blvd and Burbank Blvd	D	0.825	D	0.894
21	Owensmouth Ave and Burbank Blvd	A	0.507	C	0.740
22	Canoga Ave and Burbank Blvd	C	0.775	C	0.723
23	De Soto Ave and Burbank Blvd (N)	B	0.651	B	0.669
24	**Canoga Ave and 101 Ventura Fwy WB**	**F**	**1.053**	A	0.533
25	De Soto Ave 101 Ventura Fwy WB	B	0.698	C	0.751
26	Canoga Ave and 101 Ventura Fwy EB	A	0.476	B	0.631
27	De Soto Ave and 101 Ventura Fwy EB	D	0.812	B	0.687
28	Topanga Canyon Blvd and Nordhoff St	D	0.859	E	0.940
29	**Topanga Canyon Blvd and Roscoe Blvd**	**F**	**1.288**	**F**	**1.311**
30	**Topanga Canyon Blvd and Saticoy St**	E	0.990	**F**	**1.270**
31	Shoup Ave and Sherman Way	D	0.838	E	0.942
32	**Topanga Canyon Blvd and Sherman Way**	**F**	**1.269**	**F**	**1.195**
33	Owensmouth Ave and Sherman Way	C	0.701	C	0.708
34	**Canoga Ave and Sherman Way**	E	0.943	**F**	**1.111**
35	**De Soto Ave and Sherman Way**	D	0.818	**F**	**1.037**
36	Fallbrook Ave and Vanowen St	A	0.487	B	0.684
37	Shoup Ave and Vanowen St	C	0.768	D	0.825
38	Owensmouth Ave and Vanowen St	C	0.775	C	0.732
39	Variel Ave and Vanowen St	A	0.487	B	0.693
40	Topanga Canyon Blvd and Kittridge St	A	0.433	B	0.633
41	Woodlake Ave and Victory Blvd	B	0.674	A	0.557
42	Fallbrook Ave and Victory Blvd	C	0.772	C	0.760
43	Shoup Ave and Victory Blvd	E	0.946	E	0.955
44	Westfield Way (Pvt) and Victory Blvd	A	0.306	A	0.564

TABLE 4.12-5:
EXISTING INTERSECTIONS PEAK HOUR OPERATING CONDITIONS

		AM		PM	
Int. #	**Name**	**LOS**	**V/C**	**LOS**	**V/C**
45	Owensmouth Ave and Victory Blvd	C	0.758	D	0.829
46	Variel Ave and Victory Blvd	A	0.563	D	0.815
47	Mason Ave and Victory Blvd	D	0.814	D	0.850
48	Owensmouth Ave and Canyon Creek Dr	A	0.413	A	0.535
49	Shoup Ave and Erwin St	A	0.526	D	0.833
50	**Shoup Ave and Oxnard St**	**F**	**1.230**	**F**	**1.024**
51	Owensmouth Ave and Oxnard St	A	0.524	A	0.432
52	Shoup Ave and Burbank Blvd	A	0.552	C	0.740
53	**Shoup Ave and Ventura Blvd**	**F**	**1.028**	**F**	**1.184**
54	101 Ventura Fwy EB and Ventura Blvd	B	0.682	B	0.682
55	Topanga Canyon Blvd and 101 Fwy WB	A	0.560	C	0.704
56	Topanga Canyon Blvd and Ventura Blvd	D	0.878	E	0.991
57	Canoga Ave and Ventura Blvd	C	0.725	D	0.828
58	De Soto Ave/Serrania Ave and Ventura Bl	D	0.836	D	0.832
59	Topanga Canyon Blvd and Martinez St	A	0.571	A	0.546
60	Canoga Ave and Rocketdyne Dwy (Pvt)	A	0.540	A	0.425
61	De Soto Ave and Kittridge St	B	0.630	A	0.540
62	Topanga Canyon Blvd and Village Dwy	A	0.348	A	0.434
63	Canoga Ave and Trillium Dwy (Pvt)	A	0.402	A	0.587
64	De Soto Ave and Serrania Ave	A	0.554	A	0.525
65	Canoga Ave and Warner Ranch Rd (Pvt)	B	0.638	A	0.515
66	De Soto Ave and Burbank Bl /Kaiser Dwy	B	0.677	B	0.634
67	Owensmouth Ave and Promenade Dwy	A	0.293	A	0.309
68	Owensmouth Ave and West Valley Way	A	0.424	A	0.467
69	Canoga Ave and Busway	A	0.463	A	0.376
70	AMC Dwy and Oxnard St	A	0.367	A	0.498
71	Eton Ave and Vanowen St	A	0.506	C	0.715
72	Independence Ave and Vanowen St	A	0.500	B	0.626
73	Variel Ave and Kittridge St	A	0.115	A	0.127
74	Variel Ave and Oxnard St	A	0.424	A	0.584
75	Variel Ave and Califa St	A	0.299	A	0.343
76	Warner Center Lane and Burbank Blvd	A	0.289	A	0.294
77	De Soto Ave and Clark St	D	0.829	A	0.569
78	Warner Ranch Rd (Pvt) and Burbank Blvd	A	0.260	A	0.318
79	Owensmouth Ave and Marylee St	A	0.217	A	0.289
80	Topanga Canyon Blvd and Marylee St	A	0.410	A	0.571
81	Topanga Canyon Blvd and Calvert St	A	0.504	A	0.542
82	Topanga Canyon Blvd and Bassett St	A	0.493	A	0.507
83	Randi Ave and Victory Blvd	A	0.496	A	0.431
84	Glade Ave and Erwin St	A	0.225	A	0.286
85	Randi Ave/Nevada Ave and Erwin St	A	0.179	A	0.238
86	**Topanga Canyon Blvd and Clarendon St**	**D**	**0.836**	**F**	**1.014**
87	Jordan Ave and Sherman Way	A	0.564	A	0.577
88	Remmet Ave and Sherman Way	A	0.476	A	0.594

TABLE 4.12-5:
EXISTING INTERSECTIONS PEAK HOUR OPERATING CONDITIONS

		AM		PM	
Int. #	**Name**	**LOS**	**V/C**	**LOS**	**V/C**
89	Variel Ave and Sherman Way	B	0.660	B	0.636
90	Owensmouth Ave and Gault St	A	0.343	A	0.472
91	Owensmouth Ave and Hart St	A	0.410	A	0.554
92	De Soto Ave and Hart St	A	0.482	A	0.450
93	Mason Ave and Vanowen St	D	0.813	C	0.768
94	Don Pio Dr and Ventura Blvd	B	0.646	B	0.627
95	Owensmouth Ave and Saticoy St	D	0.811	D	0.810
96	Canoga Ave and Saticoy St	D	0.894	E	0.992
97	Variel Ave and Saticoy St	B	0.619	A	0.569
98	**De Soto Ave and Saticoy St**	E	0.982	**F**	**1.000**
99	Shoup Ave and Valerio St	A	0.448	A	0.431
100	Topanga Canyon Blvd and Valerio St	B	0.686	C	0.721
101	Canoga Ave and Valerio St	C	0.800	B	0.687
102	Lurline Ave and Sherman Way	A	0.422	A	0.378
103	Mason Ave and Sherman Way	C	0.777	C	0.703
104	Owensmouth Ave and Wyandotte St	A	0.277	A	0.361
105	Sale Ave and Vanowen St	A	0.387	A	0.308
106	Winnetka Ave and Vanowen St	D	0.866	E	0.951
107	Sale Ave and Victory Blvd	A	0.356	A	0.446
108	**Winnetka Ave and Victory Blvd**	**F**	**1.013**	**F**	**1.050**
109	Winnetka Ave and Busway	A	0.336	A	0.459
110	Fallbrook Ave and Oxnard St	B	0.628	B	0.666
111	Winnetka Ave and Calvert St	C	0.708	A	0.517
112	Winnetka Ave and Oxnard St	C	0.785	C	0.717
113	Fallbrook Ave and Burbank Blvd	C	0.752	B	0.698
114	Winnetka Ave and Hatteras St	A	0.435	A	0.514
115	Winnetka Ave and Clark St	A	0.588	A	0.531
116	Winnetka Ave and 101 Ventura Fwy WB	B	0.602	B	0.633
117	Winnetka Ave and 101 Ventura Fwy EB	B	0.656	C	0.720
118	Winnetka Ave and Ventura Blvd	D	0.807	E	0.907
119	Sale Ave and Ventura Blvd	A	0.295	A	0.500
120	**Topanga Canyon Blvd and Mullholland Dr**	**F**	**1.002**	**E**	**0.909**
121	**Fallbrook Ave and Ventura Blvd**	E	0.971	**F**	**1.151**
122	Woodlake Ave/101 Fwy WB/Ventura Bl	B	0.688	D	0.821
123	Tampa Ave and Ventura Blvd	E	0.977	D	0.816
124	Tampa Ave and 101 Ventura Fwy EB	A	0.440	A	0.540
125	Tampa Ave and 101 Ventura Fwy WB	C	0.740	A	0.567
126	Vanalden Ave/101 Fwy EB and Ventura Bl	D	0.889	C	0.754
127	Topham St/Busway and Victory Blvd	D	0.835	C	0.742
128	Corbin Ave and Victory Blvd	E	0.956	E	0.940
129	**Tampa Ave and Victory Blvd**	E	0.960	**F**	**1.019**
130	**Burbank Blvd and Ventura Blvd**	**F**	**1.315**	**F**	**1.106**
131	Reseda Blvd and Burbank Blvd	C	0.743	C	0.730
132	Reseda Blvd and 101 Ventura Fwy EB	A	0.463	B	0.621

TABLE 4.12-5:
EXISTING INTERSECTIONS PEAK HOUR OPERATING CONDITIONS

		AM		PM	
Int. #	**Name**	**LOS**	**V/C**	**LOS**	**V/C**
133	Reseda Blvd and 101 Ventura Fwy Wb	C	0.725	B	0.642
134	101 Ventura Fwy EB and Burbank Blvd	B	0.608	A	0.554
135	Canoga Ave and Nordhoff St	C	0.738	C	0.737
136	De Soto Ave and Nordhoff St	E	0.996	D	0.818
137	Topanga Canyon Blvd and Parthenia St	D	0.825	C	0.772
138	Canoga Ave and Parthenia St	B	0.679	D	0.829
139	De Soto Ave and Parthenia St	D	0.852	C	0.771
140	Fallbrook Ave and Roscoe Blvd	D	0.861	E	0.965
141	Shoup Ave and Roscoe Blvd	D	0.871	D	0.837
142	Canoga Ave and Roscoe Blvd	D	0.843	E	0.916
143	De Soto Ave and Roscoe Blvd	B	0.699	C	0.728
144	Mason Ave and Roscoe Blvd	C	0.789	C	0.769
145	Winnetka Ave and Roscoe Blvd	C	0.772	D	0.852
146	Fallbrook Ave and Saticoy St	A	0.595	A	0.594
147	Shoup Ave and Saticoy St	A	0.595	A	0.512
148	Mason Ave and Saticoy St	E	0.942	D	0.879
149	Winnetka Ave and Saticoy St	D	0.823	D	0.870
150	Fallbrook Av and Sherman Way	C	0.785	C	0.722
151	Winnetka Ave and Sherman Way	D	0.841	D	0.872
152	Woodlake Ave and Burbank Blvd	A	0.385	A	0.230

Note: Locations exceeding their operational capacity (LOS F) are shown in **bold**.

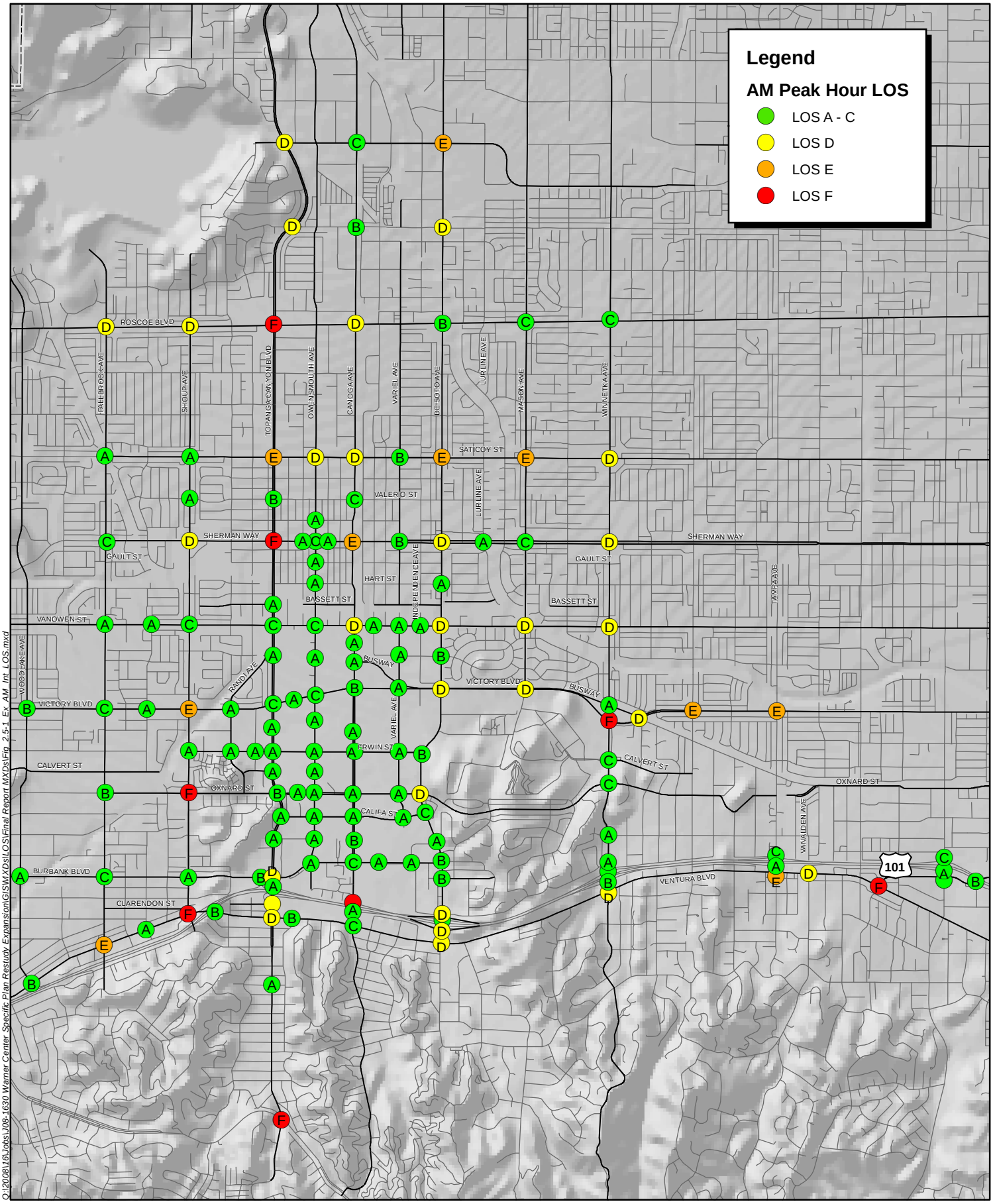

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Figure 4.12-3
Existing AM Intersection LOS

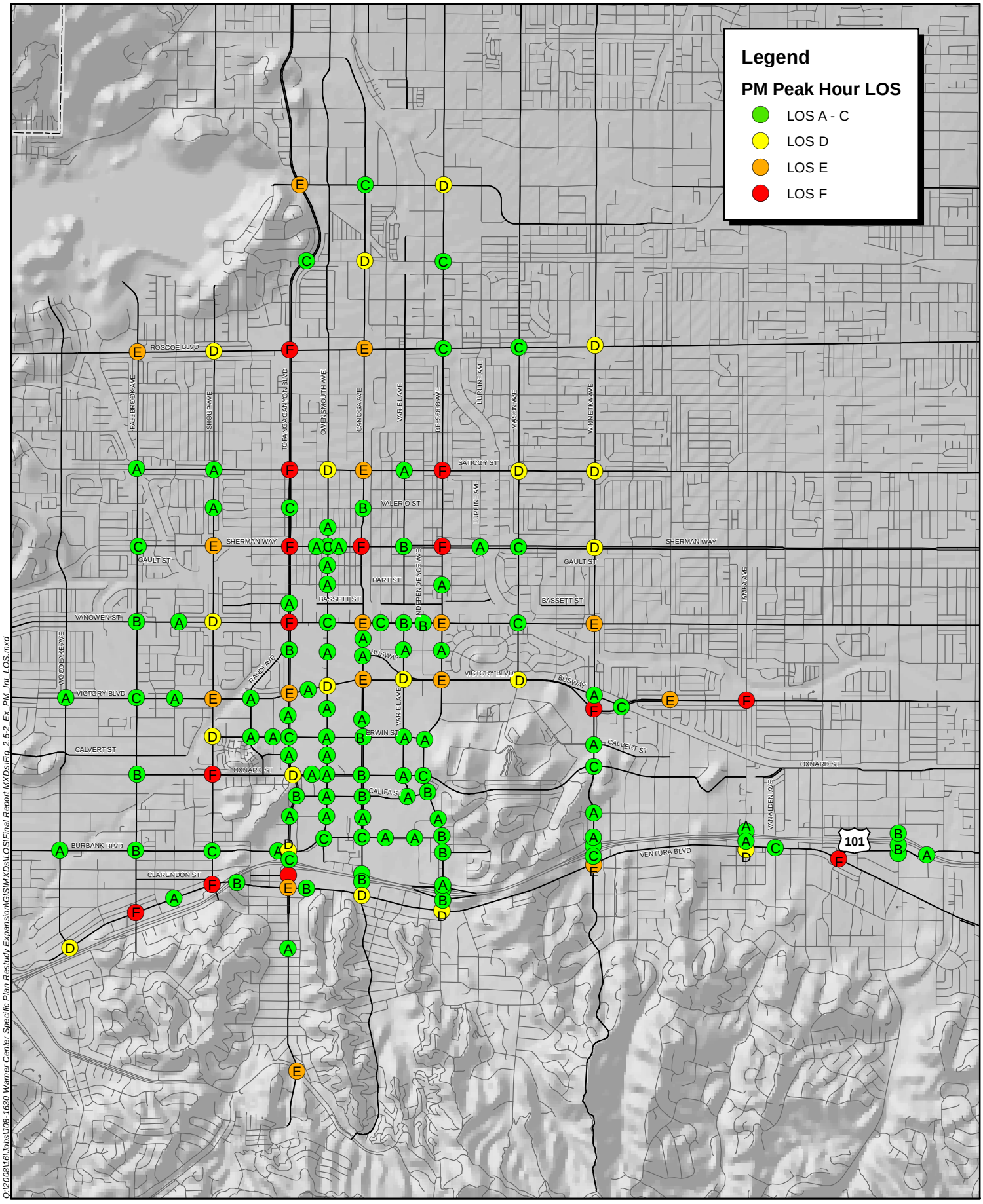

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Figure 4.12-4
Existing PM Intersection LOS

Arterial Segment Levels of Service (Daily Traffic)

As discussed above, the 52 arterial segments included in the analysis (see **Figure 4.12-2**) are comprised of every major and secondary arterial within the project area, plus key arterials in the surrounding areas, extending as far east as I-405 and as far north as SR-118. The selection of segments was made based on proximity to the project area, access routes, existing travel patterns and forecast travel patterns.

Average Daily Traffic (ADT) two-way traffic counts were collected for 24 hour periods at all study segments on weekdays. Count data was collected during the months of November and January. All 24-hour traffic count data is summarized in **Appendix G.5**. Daily operating conditions at the study segments were analyzed using the 2009 Florida Department of Transportation (FDOT) Quality/Level of Service Handbook.[1]

Among the 52 existing study segments, 36 are presently operating at acceptable LOS D or better, six are currently nearing capacity at LOS E, and eight segments are currently over capacity at LOS F. **Table 4.12-6** presents the existing 2008 daily operating conditions for the 52 study segments, with LOS F segments shown in bold. **Figure 4.12-5** displays the segments and corresponding LOS. As shown in **Figure 4.12-5**, LOS generally worsens outside of Warner Center. Within Warner Center LOS ratings range from D to C or better, with the exception of Topanga Canyon Boulevard between Ventura Boulevard and Oxnard Street which is operating at LOS F.

TABLE 4.12-6:
EXISTING AVERAGE DAILY TRAFFIC OPERATING CONDITIONS

Seg. #	Street Name	Segment Location	ADT (1,000's)	LOS
1	Saticoy St	Canoga Ave to Mason Ave	27.7	D
2	Sherman Way	Topanga Canyon Blvd to DeSoto Ave	29.6	D
3	Sherman Way	DeSoto Ave to Winnetka Ave	34.3	C
4	Sherman Way	Winnetka Ave to Tampa Ave	29.5	C
5	**Sherman Way**	**Tampa Ave to Reseda Blvd**	**36.4**	**F**
6	Sherman Way	Reseda Ave to White Oak Ave	31.6	E
7	Sherman Way	White Oak Ave to Balboa Blvd	32.7	C
8	Sherman Way	Balboa Blvd to Woodley Ave	36.1	C
9	**Sherman Way**	**Woodley Ave to I-405**	**53.9**	**F**
10	Vanowen St	Topanga Canyon Blvd to DeSoto Ave	25.4	C
11	Vanowen St	DeSoto Ave to Winnetka Ave	30.5	C
12	Vanowen St	Winnetka Ave to Tampa Ave	31.7	D
13	Vanowen St	Tampa Ave to Reseda Blvd	32.0	D
14	**Vanowen St**	**Reseda Ave to White Oak Ave**	**37.5**	**F**
15	Vanowen St	White Oak Ave to Balboa Blvd	28.1	D
16	Vanowen St	Balboa Blvd to Woodley Ave	36.2	E
17	**Vanowen St**	**Woodley Ave to I-405**	**35.8**	**F**

[1] The FDOT Quality/Level of Service Handbook indicates a Level of Service rating of conditions along a segment based on ADT volumes, segment capacity, number of intersections along the segment and median type. Levels of service range from LOS A (free flow conditions) to LOS F (extreme congestion with very significant delay). The FDOT Quality/Level of Service Handbook is considered a standard application in transportation planning and engineering, and its use has been generally accepted in counties throughout southern California.

TABLE 4.12-6:
EXISTING AVERAGE DAILY TRAFFIC OPERATING CONDITIONS

Seg. #	Street Name	Segment Location	ADT (1,000's)	LOS
18	Victory Blvd	Fallbrook Street to Topanga Canyon Blvd	25.3	C
19	Victory Blvd	Topanga Canyon Blvd to DeSoto Ave	31.7	D
20	Victory Blvd	DeSoto Ave to Winnetka Ave	41.3	B
21	**Victory Blvd**	**Winnetka Ave to Tampa Ave**	**39.1**	**F**
22	Oxnard St	Fallbrook Street to Topanga Canyon Blvd	5.8	C
23	Oxnard St	Topanga Canyon Blvd to DeSoto Ave	15.9	C
24	Oxnard St	DeSoto Ave to Winnetka Ave	7.0	C
25	Burbank Blvd	Fallbrook Street to Topanga Canyon Blvd	8.3	C
26	Burbank Blvd	Topanga Canyon Blvd to DeSoto Ave	17.1	C
27	Ventura Blvd	Fallbrook Street to Topanga Canyon Blvd	35.0	C
28	Ventura Blvd	Topanga Canyon Blvd to DeSoto Ave	34.3	C
29	Ventura Blvd	DeSoto Ave to Winnetka Ave	33.7	C
30	Ventura Blvd	Winnetka Ave to Tampa Ave	36.7	D
31	**Topanga Canyon Blvd**	**Ventura Blvd to Oxnard St.**	**58.6**	**F**
32	Topanga Canyon Blvd	Oxnard St. to Vanowen St.	45.1	D
33	**Topanga Canyon Blvd**	**Vanowen St. to Saticoy St.**	**45.7**	**F**
34	Topanga Canyon Blvd	Saticoy St. to Roscoe Blvd.	42.9	E
35	**Topanga Canyon Blvd**	**Roscoe Blvd to Nordhoff St**	**47.3**	**F**
36	Topanga Canyon Blvd	Nordhoff St to Lassen St.	45.3	D
37	Topanga Canyon Blvd	Lassen St. to Chatsworth St.	47.4	E
38	Topanga Canyon Blvd	Chatsworth St. to SR-118	46.9	E
39	Canoga Ave	Ventura Blvd to Oxnard St.	40.5	D
40	Canoga Ave	Oxnard St. to Vanowen St.	34.4	D
41	Canoga Ave	Vanowen St. to Saticoy St.	31.0	D
42	Canoga Ave	Saticoy St. to Roscoe Blvd.	27.3	B
43	DeSoto Ave	Ventura Blvd to Oxnard St.	43.1	D
44	DeSoto Ave	Oxnard St. to Vanowen St.	42.7	D
45	DeSoto Ave	Vanowen St. to Saticoy St.	39.1	C
46	DeSoto Ave	Saticoy St. to Roscoe Blvd.	33.5	B
47	DeSoto Ave	Roscoe Blvd to Nordhoff St	35.9	B
48	DeSoto Ave	Nordhoff St to Lassen St.	39.3	D
49	DeSoto Ave	Lassen St. to Chatsworth St.	42.4	B
50	DeSoto Ave	Chatsworth St. to SR-118	49.3	E
51	Mason	Victory Blvd to Sherman Way	17.5	C
52	Mason	Sherman Way to Roscoe Blvd.	24.7	B

Note: Locations exceeding their operational capacity (LOS F) are shown in **bold**.

Existing Arterial Vehicle Miles Traveled (VMT) and Vehicle Hours Traveled (VHT)

VMT and VHT are presented in this study as system-wide measures of roadway efficiency/deficiency. Existing 2008 VMT and VHT levels were modeled using the SCAG Regional Travel Demand Model for comparison with future modeled scenarios. The existing levels are summarized in **Table 4.12-7** and **Table 4.12-8** for VHT and VMT, respectively.

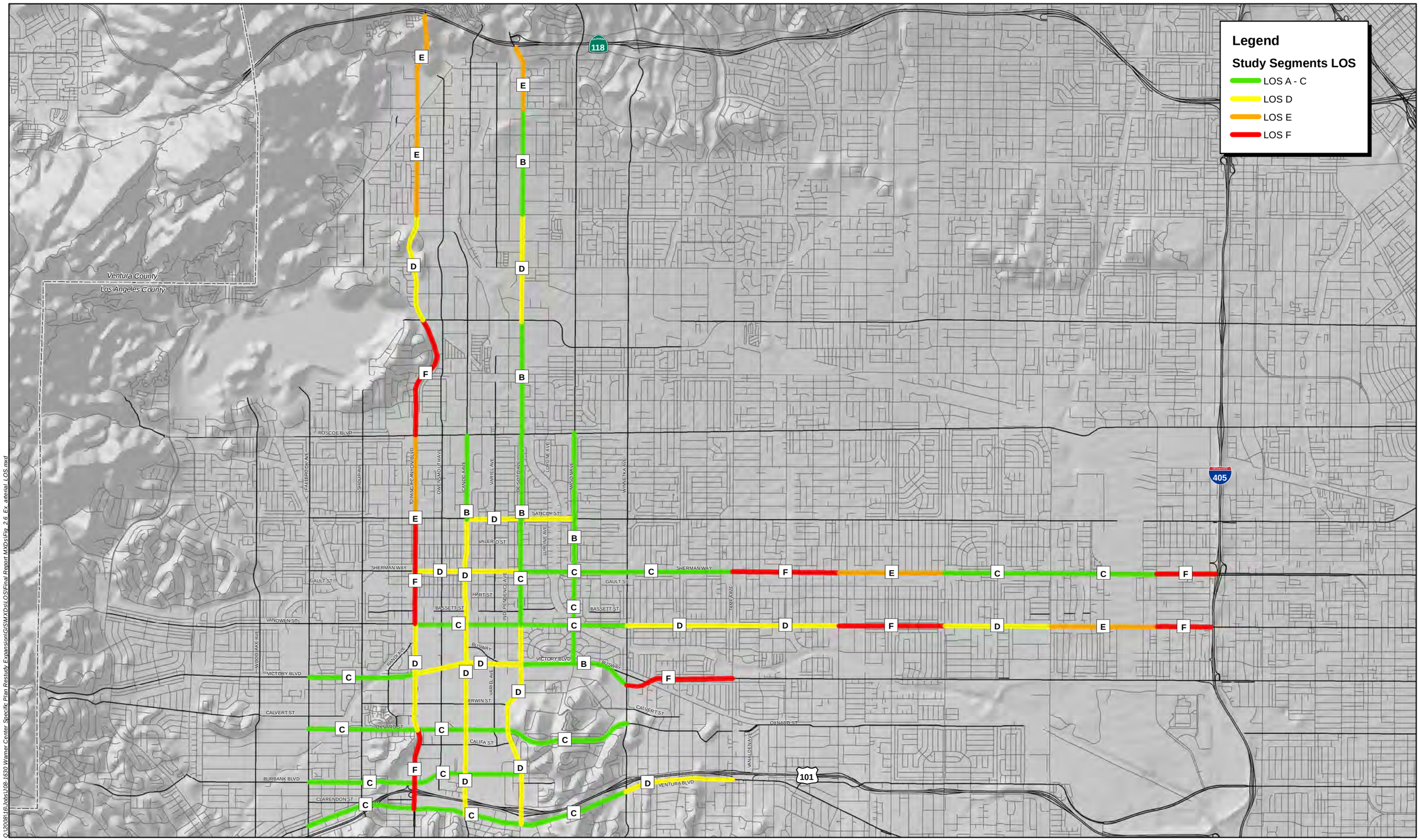

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Figure 4.12-5
Existing Arterial Segment LOS

TABLE 4.12-7:
VEHICLE HOURS TRAVELED (VHT) BY PEAK PERIODS - EXISTING 2008 (MODELED)

Seg. #	Street Name	Location	AM (6 - 9am)	PM (3-7pm)	24 Hour Total
1	Saticoy St	Canoga Ave to Mason Ave	31	71	149
2	Sherman Way	Topanga Canyon Blvd to DeSoto Ave	10	19	50
3	Sherman Way	DeSoto Ave to Winnetka Ave	81	161	386
4	Sherman Way	Winnetka Ave to Tampa Ave	123	221	530
5	Sherman Way	Tampa Ave to Reseda Blvd	70	138	344
6	Sherman Way	Reseda Ave to White Oak Ave	51	105	234
7	Sherman Way	White Oak Ave to Balboa Blvd	183	354	850
8	Sherman Way	Balboa Blvd to Woodley Ave	156	334	784
9	Sherman Way	Woodley Ave to I-405	217	431	1,072
10	Vanowen St	Topanga Canyon Blvd to DeSoto Ave	10	22	58
11	Vanowen St	DeSoto Ave to Winnetka Ave	20	52	104
12	Vanowen St	Winnetka Ave to Tampa Ave	23	54	105
13	Vanowen St	Tampa Ave to Reseda Blvd	71	174	311
14	Vanowen St	Reseda Ave to White Oak Ave	86	193	379
15	Vanowen St	White Oak Ave to Balboa Blvd	85	183	364
16	Vanowen St	Balboa Blvd to Woodley Ave	95	240	455
17	Vanowen St	Woodley Ave to I-405	92	194	386
18	Victory Blvd	Fallbrook Street to Topanga Canyon Blvd	34	69	180
19	Victory Blvd	Topanga Canyon Blvd to DeSoto Ave	36	68	171
20	Victory Blvd	DeSoto Ave to Winnetka Ave	159	296	724
21	Victory Blvd	Winnetka Ave to Tampa Ave	86	163	377
22	Oxnard St	Fallbrook Street to Topanga Canyon Blvd	29	53	132
23	Oxnard St	Topanga Canyon Blvd to DeSoto Ave	6	16	35
24	Oxnard St	DeSoto Ave to Winnetka Ave	31	66	135
25	Burbank Blvd	Fallbrook Street to Topanga Canyon Blvd	31	56	166
26	Burbank Blvd	Topanga Canyon Blvd to DeSoto Ave	31	56	142
27	Ventura Blvd	Fallbrook Street to Topanga Canyon Blvd	50	85	226
28	Ventura Blvd	Topanga Canyon Blvd to DeSoto Ave	30	78	162
29	Ventura Blvd	DeSoto Ave to Winnetka Ave	104	276	554
30	Ventura Blvd	Winnetka Ave to Tampa Ave	134	315	626
31	Topanga Canyon Blvd	Ventura Blvd to Oxnard St.	23	38	123
32	Topanga Canyon Blvd	Oxnard St. to Vanowen St.	42	75	235
33	Topanga Canyon Blvd	Vanowen St. to Saticoy St.	24	39	136
34	Topanga Canyon Blvd	Saticoy St. to Roscoe Blvd.	76	124	416
35	Topanga Canyon Blvd	Roscoe Blvd to Nordhoff St	73	134	381
36	Topanga Canyon Blvd	Nordhoff St to Lassen St..	128	262	633
37	Topanga Canyon Blvd	Lassen St. to Chatsworth St.	108	176	527
38	Topanga Canyon Blvd	Chatsworth St. to SR-118	128	228	644
39	Canoga Ave	Ventura Blvd to Oxnard St.	26	44	142
40	Canoga Ave	Oxnard St. to Vanowen St.	45	76	224
41	Canoga Ave	Vanowen St. to Saticoy St.	22	36	111
42	Canoga Ave	Saticoy St. to Roscoe Blvd.	43	84	192
43	DeSoto Ave	Ventura Blvd to Oxnard St.	14	29	75
44	DeSoto Ave	Oxnard St. to Vanowen St.	51	94	232
45	DeSoto Ave	Vanowen St. to Saticoy St.	38	75	184
46	DeSoto Ave	Saticoy St. to Roscoe Blvd.	40	68	193
47	DeSoto Ave	Roscoe Blvd to Nordhoff St	88	183	455
48	DeSoto Ave	Nordhoff St to Lassen St..	79	121	366
49	DeSoto Ave	Lassen St. to Chatsworth St.	80	143	392
50	DeSoto Ave	Chatsworth St. to SR-118	13	36	73
51	Mason Ave	Victory Blvd to Sherman Way	55	88	290
52	Mason Ave	Sherman Way to Roscoe Blvd.	64	110	302
Total VHT - All Study Segments			3,425	6,806	16,517

TABLE 4.12-8
VEHICLE MILES TRAVELED (VMT) BY PEAK PERIODS - EXISTING 2008 (MODELED)

Seg. #	Street Name	Location	AM (6-9am)	PM (3-7pm)	24 Hour Total
1	Saticoy St	Canoga Ave to Mason Ave	876	1,785	4,066
2	Sherman Way	Topanga Canyon Blvd to DeSoto Ave	260	467	1,350
3	Sherman Way	DeSoto Ave to Winnetka Ave	2,352	4,282	11,143
4	Sherman Way	Winnetka Ave to Tampa Ave	3,418	5,684	14,831
5	Sherman Way	Tampa Ave to Reseda Blvd	1,749	2,946	8,639
6	Sherman Way	Reseda Ave to White Oak Ave	1,178	1,977	5,439
7	Sherman Way	White Oak Ave to Balboa Blvd	4,897	8,523	22,943
8	Sherman Way	Balboa Blvd to Woodley Ave	3,804	7,138	19,019
9	Sherman Way	Woodley Ave to I-405	4,897	8,463	24,453
10	Vanowen St	Topanga Canyon Blvd to DeSoto Ave	271	528	1,500
11	Vanowen St	DeSoto Ave to Winnetka Ave	514	1,205	2,593
12	Vanowen St	Winnetka Ave to Tampa Ave	667	1,399	2,921
13	Vanowen St	Tampa Ave to Reseda Blvd	1,904	4,158	8,018
14	Vanowen St	Reseda Ave to White Oak Ave	2,301	4,559	9,835
15	Vanowen St	White Oak Ave to Balboa Blvd	2,285	4,387	9,553
16	Vanowen St	Balboa Blvd to Woodley Ave	2,115	4,445	9,583
17	Vanowen St	Woodley Ave to I-405	2,144	4,009	8,792
18	Victory Blvd	Fallbrook Street to Topanga Canyon Blvd	843	1,541	4,413
19	Victory Blvd	Topanga Canyon Blvd to DeSoto Ave	963	1,630	4,562
20	Victory Blvd	DeSoto Ave to Winnetka Ave	4,112	6,963	19,014
21	Victory Blvd	Winnetka Ave to Tampa Ave	2,367	4,121	10,279
22	Oxnard St	Fallbrook Street to Topanga Canyon Blvd	688	1,136	3,128
23	Oxnard St	Topanga Canyon Blvd to DeSoto Ave	179	387	942
24	Oxnard St	DeSoto Ave to Winnetka Ave	714	1,354	3,081
25	Burbank Blvd	Fallbrook Street to Topanga Canyon Blvd	615	939	3,332
26	Burbank Blvd	Topanga Canyon Blvd to DeSoto Ave	698	1,140	3,252
27	Ventura Blvd	Fallbrook Street to Topanga Canyon Blvd	1,181	2,026	5,632
28	Ventura Blvd	Topanga Canyon Blvd to DeSoto Ave	765	1,650	3,909
29	Ventura Blvd	DeSoto Ave to Winnetka Ave	2,659	6,120	13,479
30	Ventura Blvd	Winnetka Ave to Tampa Ave	2,920	5,548	12,953
31	Topanga Canyon Blvd	Ventura Blvd to Oxnard St.	562	890	3,146
32	Topanga Canyon Blvd	Oxnard St. to Vanowen St.	1,047	1,725	6,063
33	Topanga Canyon Blvd	Vanowen St. to Saticoy St.	586	906	3,449
34	Topanga Canyon Blvd	Saticoy St. to Roscoe Blvd.	2,208	3,478	12,360
35	Topanga Canyon Blvd	Roscoe Blvd to Nordhoff St	2,247	3,676	12,071
36	Topanga Canyon Blvd	Nordhoff St to Lassen St..	2,933	5,109	15,563
37	Topanga Canyon Blvd	Lassen St. to Chatsworth St.	2,990	4,629	15,201
38	Topanga Canyon Blvd	Chatsworth St. to SR-118	3,748	5,879	19,301
39	Canoga Ave	Ventura Blvd to Oxnard St.	719	1,166	3,958
40	Canoga Ave	Oxnard St. to Vanowen St.	1,220	1,962	6,165
41	Canoga Ave	Vanowen St. to Saticoy St.	505	804	2,632
42	Canoga Ave	Saticoy St. to Roscoe Blvd.	1,062	2,007	4,789
43	DeSoto Ave	Ventura Blvd to Oxnard St.	357	672	1,865
44	DeSoto Ave	Oxnard St. to Vanowen St.	1,072	1,789	5,001
45	DeSoto Ave	Vanowen St. to Saticoy St.	926	1,599	4,359
46	DeSoto Ave	Saticoy St. to Roscoe Blvd.	1,106	1,782	5,393
47	DeSoto Ave	Roscoe Blvd to Nordhoff St	2,444	4,661	12,591
48	DeSoto Ave	Nordhoff St to Lassen St..	2,124	3,165	10,226
49	DeSoto Ave	Lassen St. to Chatsworth St.	2,395	3,964	11,951
50	DeSoto Ave	Chatsworth St. to SR-118	403	763	2,029
51	Mason Ave	Victory Blvd to Sherman Way	1,428	2,141	7,677
52	Mason Ave	Sherman Way to Roscoe Blvd.	1,809	2,983	8,645
Total VMT - All Study Segments			88,227	156,260	427,089

Transit Services

The transit system serving the study area is comprised of bus and shuttle transit services provided by various transportation agencies. **Table 4.12-9** presents the existing Study Area bus operators and routes, as illustrated in **Figure 4.12-6**. The following lines are depicted in the table and map:

- Metro Local Bus – 150, 152, 161, 163, 164, 165, 166, 167, 168, 169, 242, 243, 244, 245, 353, 363, 364, 645
- Metro Rapid Bus – 741, 750
- Metro Orange Line Express Bus
- LADOT Commuter Express – 419, 422, 575
- LADOT DASH –Warner Center North, Warner Center South[2]
- Antelope Valley Transit Authority – 787
- City of Santa Clarita Transit – 791, 796

As noted in the table below these lines provide regional connectivity; in particular the metro Orange Line provides connections to the Chatsworth Metrolink Station in the north and the North Hollywood Red Line station to the east.

TABLE 4.12-9:
EXISTING STUDY AREA TRANSIT LINES

Service Provider / Line	Route Description		Weekday Headway (min)		
	From	To	AM	Mid-day	PM
LADOT Commuter Express					
419	Chatsworth	Downtown Los Angeles	15	-	20
422	Agoura Hills / Warner Center	Central LA / Hollywood	15-20	-	20
423	Newbury Park	Downtown Los Angeles	20-28	-	20-25
575	Simi Valley	Warner Center / Chatsworth	35-50	-	50-70
Metro					
150	Northridge	Universal City Station	15-20	40	20-25
152	Woodland Hills	North Hollywood Red Line Station	7-14	12-24	25
161	Thousand Oaks	Warner Center	25	50-60	25
163	West Hills Medical Center	Sun Valley	22	14	19
164	West Hills	Burbank Station (via Victory Boulevard)	7	20	14
165	West Hills	Burbank Station (via Vanowen Street)	11-18	20	9-12
166/364	Chatsworth Station	Sun Valley	8-10	24	14
167	Chatsworth Station	Studio City	45	45-55	50
168	Chatsworth Station	San Fernando	60	-	60
169	West Hills Medical Center	Sunland	60	60	60
242	Woodland Hills	Porter Ranch (via Tampa Avenue)	26-32	50	23-27
243	Woodland Hills	Porter Ranch (via Winnetka Avenue)	27-34	50	25-33
244	Woodland Hills	Chatsworth (via DeSoto Avenue)	5-10	50-60	20-30
245	Woodland Hills	Chatsworth (via Topanga Canyon Boulevard)	20		30-35

[2] As of August 2010, the LADOT DASH lines "Warner Center North" and "Warner Center South" have been cancelled.

TABLE 4.12-9:
EXISTING STUDY AREA TRANSIT LINES

Service Provider / Line	Route Description		Weekday Headway (min)		
	From	To	AM	Mid-day	PM
353	Woodland Hills (Same as 153 but with limited stops)	North Hollywood Red Line Station	25-30	-	35-40
363	West Hills - Sherman Way & Topanga Canyon Boulevard	Sun Valley (with connection to North Hollywood Redline Station)	20	-	24
645	West Hills Medical Center	Warner Center (via Valley Circle Boulevard & Mulholland Drive)	20-30	60	55
741	Northridge	Tarzana (via Reseda Boulevard)	15	25	15
750	Warner Center Transit Hub	Universal City Station (via Ventura Boulevard)	5-10	20	10
164	West Hills	Burbank Station (via Victory Boulevard)	7	20	14
165	West Hills	Burbank Station (via Vanowen Street)	11-18	20	9-12
166/364	Chatsworth Station	Sun Valley	8-10	24	14
167	Chatsworth Station	Studio City	45	45-55	50
168	Chatsworth Station	San Fernando	60	-	60
169	West Hills Medical Center	Sunland	60	60	60
242	Woodland Hills	Porter Ranch (via Tampa Avenue)	26-32	50	23-27
243	Woodland Hills	Porter Ranch (via Winnetka Avenue)	27-34	50	25-33
244	Woodland Hills	Chatsworth (via DeSoto Avenue)	5-10	50-60	20-30
245	Woodland Hills	Chatsworth (via Topanga Canyon Boulevard)	20		30-35
353	Woodland Hills (Same as 153 but with limited stops)	North Hollywood Red Line Station	25-30	-	35-40
363	West Hills - Sherman Way & Topanga Canyon Boulevard	Sun Valley (with connection to North Hollywood Redline Station)	20	-	24
645	West Hills Medical Center	Warner Center (via Valley Circle Boulevard & Mulholland Drive)	20-30	60	55
741	Northridge	Tarzana (via Reseda Boulevard)	15	25	15
750	Warner Center Transit Hub	Universal City Station (via Ventura Boulevard)	5-10	20	10
City of Santa Clarita Transit					
791	Canoga Park, Chatsworth, Warner Center	Santa Clarita	30-40	-	21-28
796	Santa Clarita	Canoga Park, Chatsworth, Warner Center	24-32	-	25-30
Antelope Valley Transit Authority					
787	Palmdale/Lancaster	Warner Center/Tarzana	15-20	-	25-30

Sources: Antelope Valley Transit Authority, 2010; City of Santa Clarita Transit, 2010; LADOT, 2008; Metropolitan Transportation Authority (Metro), 2010.

Transportation Centers and Hubs

The project area is served by a network of bus transit services, both regional and local; however, there are few supporting transportation system facilities, such as transit centers or park-and-ride lots. The Warner Center Transit Hub is located at the end of the Metro Orange Line busway, along Owensmouth Avenue between Erwin Street and Oxnard Street. The hub is currently the western terminus of the Metro Orange Line and serves as a connection point with Metro local buses, Metro Rapid buses, City of Santa Clarita Transit and LADOT Dash. In addition, there are

two park-and-ride facilities associated with the Orange Line located near the project area. A 612-space park-and-ride facility is located within Warner Center at the Canoga Park Station, on Canoga Avenue north of Victory Boulevard. Another 394 spaces are located just outside of Warner Center at the Pierce College Station park-and-ride.

Goods Movement

Goods movement in the project area is primarily highway-related and occurs on the area's freeway and arterial system. Study area roadway segments currently carry typical volumes of truck traffic for the area, consisting of 2.2% of total AM and PM peak hour volumes. Within the City of Los Angeles, truck activity is allowed on all streets unless otherwise posted. There is no regional rail freight activity in the project area.

Bicycle and Pedestrian Access

The City of Los Angeles has a bicycle plan that identifies existing and planned bikeway corridors both on- and off-street. The plan also provides guidelines and policies for connections to transit, bicycle parking, and other ancillary facilities. The recently adopted Bicycle Plan[3] seeks to reduce the barriers to the greater utilization of bicycles for both personal transportation and recreation and designates many potential additional bicycle facilities in the Warner Center Specific Plan area.

The City of Los Angeles Bicycle Plan identifies the three classes of bikeways as defined by Caltrans: Class I Bike Paths, Class II Bike Lanes, and Class III Bike Routes. Existing and Planned bikeways in the Study Area are illustrated in **Figure 4.12-7.**

TABLE 4.12-10:
BIKEWAY CLASSIFICATION DESCRIPTIONS

Classification	Description
Bike Path (Class I)	A special pathway facility for the exclusive use of *bicycle*s that is separated from motor vehicle facilities by space or a physical barrier. A bike path may be located on a portion of a street or highway right-of- way or in a special right-of-way not related to a motor vehicle facility; it may be grade separated or have street crossings at designated locations. It is identified with "Bike Route" signs and also may have pavement markings.
Bike Lane (Class II)	A lane on the paved area of a road for preferential use by *bicycle*s. It is usually located along the edge of the paved area or between the parking lane and the first motor vehicle travel lane. It is identified by "Bike Lane" or "Bike Route" guide signing, special lane lines, and other pavement markings. *Bicycle*s have exclusive use of a bike lane for longitudinal travel, but must share the facility with motor vehicles and pedestrians crossing it.
Bike Route (Class III)	A street identified as a *bicycle* facility by "Bike Route" guide signing only. There are no special lane markings; *bicycle* traffic shares the roadway with motor vehicles.
Bike-Friendly Street (Class III)	A street that includes at least two engineering street calming treatments in addition to signage and shared lane markings.

Source: City of Los Angeles General Plan Transportation Element - Chapter IX; Adopted 8/06/96 & City of Los Angeles 2010 Bicycle Plan adopted on on March 1, 2011.

[3] City of Los Angeles 2010 Bicycle Plan adopted on on March 1, 2011.

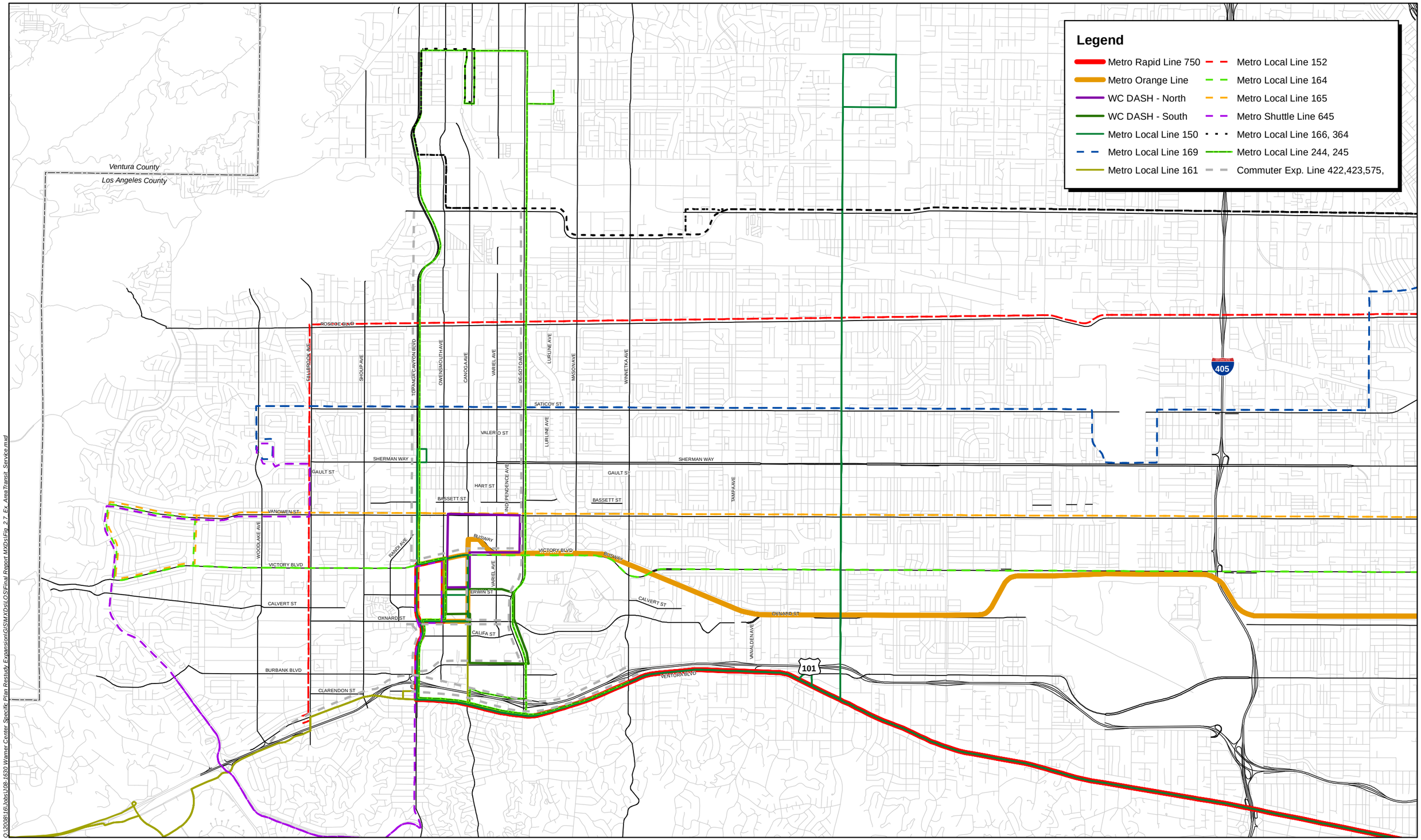

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Figure 4.12-6
Existing Study Area Transit Service

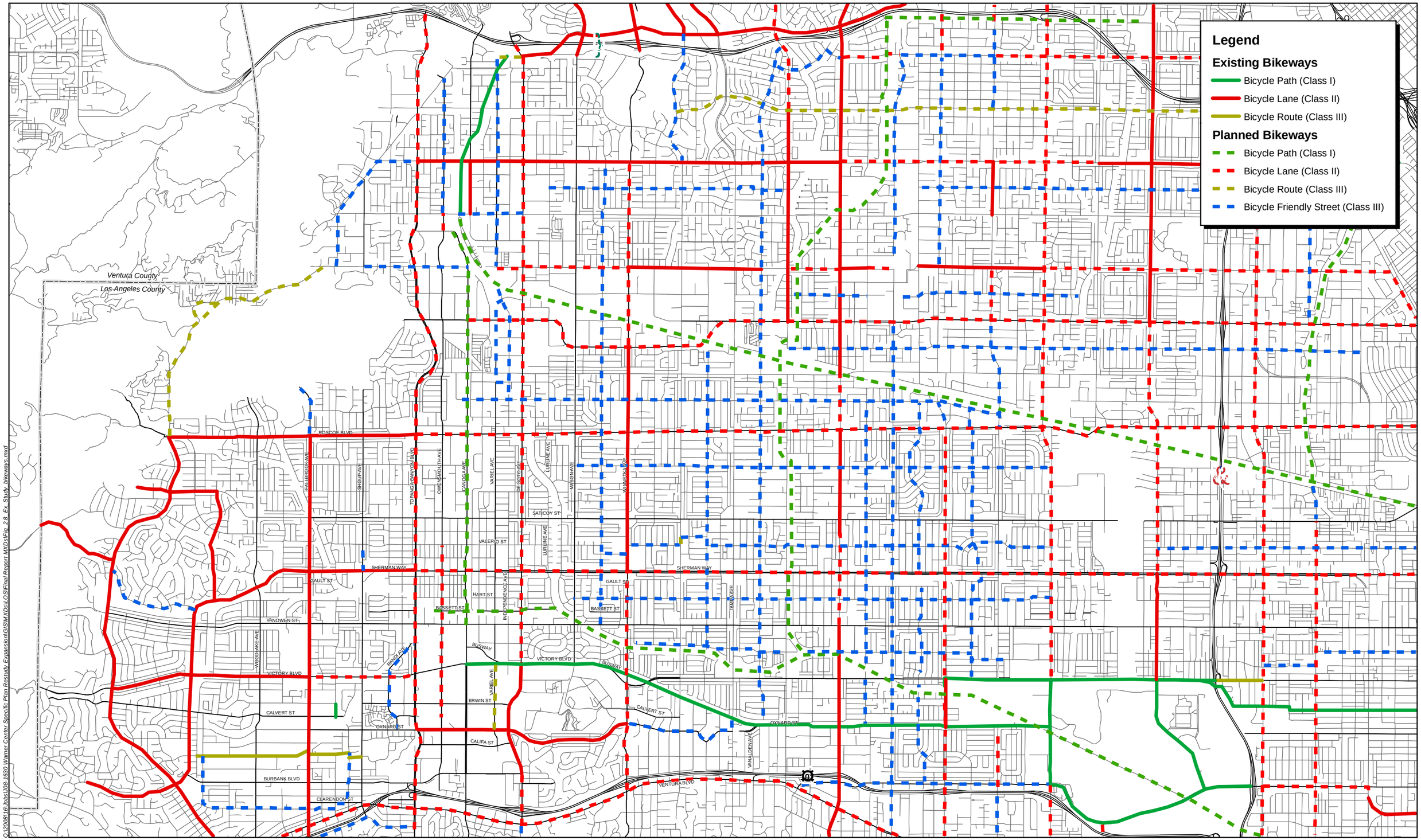

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Figure 4.12-7
Existing and Planned Study Area Bikeways

Accident Rates

On average, in the southern California region, transportation-related fatalities occur at an overall rate of 1.2 fatalities per one hundred million passenger miles traveled.[4] This average takes into account the varying accident rates on different facility types (freeway, arterials) and travel modes (bus transit, rail transit).

REGULATORY FRAMEWORK

County

Congestion Management Program: The 2004 Congestion Management Program (CMP) for Los Angeles County (a Draft updated CMP was circulated in August 2010) was developed in part to link local land use decisions with their impacts on regional transportation. The CMP identifies a system of highways and roadways, with minimum levels of service performance measurements designated at LOS E (unless exceeded in base year conditions) for highway segments and key roadway intersections on this system. For all CMP facilities within the project study area a traffic impact analysis (TIA) is required. The analysis must: investigate measures which will mitigate the significant CMP system impacts; develop cost estimates, including the fair share costs to mitigate impacts of the proposed project; and, indicate the responsible agency. Selection of final mitigation measures is left at the discretion of the local jurisdiction. Once a mitigation program is selected, the jurisdiction self-monitors implementation through the existing mitigation monitoring requirements of CEQA.

City of Los Angeles

General Plan Transportation Element: The Transportation Element of the General Plan establishes a citywide strategy to achieve long-term mobility and accessibility within the City of Los Angeles. The General Plan identifies three overarching transportation goals along with their associated objectives[5]:

Goal A: Adequate accessibility to work opportunities and essential services, and acceptable levels of mobility for all those who live, work, travel, or move goods in Los Angeles.

Objective 1: Expand neighborhood transportation services and programs to enhance neighborhood accessibility.

Objective 2: Mitigate the impacts of traffic growth, reduce congestion, and improve air quality by implementing a comprehensive program of multimodal strategies that encompass physical and operational improvements as well as demand management.

Objective 3: Support development in regional centers, community centers, major economic activity areas and along mixed-use boulevards as designated in the Community Plans.

Objective 4: Preserve the existing character of lower density residential areas and maintain pedestrian-oriented environments where appropriate.

[4] Table 3.14-4, 2008 RTP EIR, SCAG, January 2008.
[5] City of Los Angeles General Plan – Transportation Element, adopted September 8, 1999.

Objective 5: Provide for the efficient movement of goods and for adequate access to intermodal facilities.

Objective 6: Incorporate available local, state, and federal funding opportunities to provide sufficient financing for transportation improvements and programs.

Objective 7: Provide an ongoing evaluation of transportation programs to determine whether the goals and objectives of the Citywide General Plan Framework and this element are being met, or if these goals and objectives should be modified to reflect changing circumstances.

Goal B: A street system maintained in a good to excellent condition adequate to facilitate the movement of those reliant on the system.

Objective 8: Operate a pavement management system designed to provide, on a continuing basis, the status of the maintenance needs of the City's street and bikeway systems.

Objective 9: Ensure that adequate maintenance of the street system is provided to facilitate the movement of current and future traffic volumes, as well as emergency services.

Goal C: An integrated system of pedestrian priority street segments, bikeways, and scenic highways which strengthens the City's image while also providing access to employment opportunities, essential services, and open space.

Objective 10: Make the street system accessible, safe, and convenient for bicycle, pedestrian, and school child travel.

Objective 11: Preserve and enhance access to scenic resources and regional open space.

Existing (1993) Warner Center Specific Plan: The existing (1993) WCSP includes a Transportation Demand Management (TDM) component to apply trip reduction percentages to project trip generation. The TDM component of the existing WCSP was expanded upon in this study to reflect increased transit ridership and high-density mixed-use developments associated with the WCRCCSP. The existing WCSP also defines a per-trip fee to fund mitigation measure for new development. As part of the WCRCCSP, a new Mobility Fee is defined to fund the fair-share portion of WCRCCSP transit and roadway mitigation costs.

THRESHOLDS OF SIGNIFICANCE

Intersection Analysis

Both project related and cumulative impacts were identified using the LADOT standard thresholds for Critical Movement Analysis (CMA), which measures traffic performance in terms of the volume-to-capacity ratio (V/C). The thresholds provide a greater sensitivity to the incremental increase in V/C as overall Level of Service worsens. If the threshold was exceeded in either the AM or PM peak hour analysis, an impact is identified at that intersection. Project-related impacts are identified using the increment of growth in V/C between the 2035 No Project conditions and the 2035 With Project conditions. Cumulative impacts are identified using the increment of V/C growth between Existing 2008 conditions and the 2035 With Project conditions. The cumulative impacts include all project impacts plus impacts caused by

reasonably foreseeable local and regional traffic growth, as assumed in the 2035 SCAG Regional Travel Demand Model. The thresholds shown in **Table 4.12-11** are used to determine project impacts and whether the project would make a cumulatively considerable contribution to cumulative impacts (i.e. whether the project impacts are substantial relative to existing conditions and the overall anticipated cumulative impact). The existing Warner Center Specific Plan contains significant impact criteria for Levels of Service A and B, however this conflicts with LADOT's citywide policy of thresholds of significance criteria, and significant impact criteria for Levels of Service A and B are not proposed to be included in the new specific plan, therefore intersections with Levels of Service A and B were not identified as having significant impacts in this traffic study.

TABLE 4.12-11:
THRESHOLD OF SIGNIFICANCE CRITERIA FOR STUDY INTERSECTIONS

Level of Service for Future Base Scenario	Final V/C for Future Base Scenario	Minimum Difference V/C Growth for Significant Impact
C	> 0.70 – 0.80	≥ 0.04
D	> 0.80 – 0.90	≥ 0.02
E, F	> 0.90	≥ 0.01

Source: City of Los Angeles Department of Transportation

Arterial Segment Analysis

An LOS E standard for arterial segments consistent with CMP standards was applied as a threshold of significance. Any arterial segment exceeding LOS E for 2035 With Project conditions was considered significantly impacted, unless the operating LOS for future base conditions already exceeded LOS E.

Vehicle Miles Traveled (VMT) and Vehicle Hours Traveled (VHT)

For the purposes of assessing system-wide performance, any substantial increase in total arterial VMT or VHT is considered significant.

Parking

A significant parking impact is defined by a parking supply that is inconsistent with the goals and objectives of the proposed project and which causes substantial detrimental affects to traffic circulation.

CMP Mainline Freeway

According to the CMP, monitored freeway mainlines with less than 150 peak hour project trips for each direction and peak hour are not impacted and require no further analysis. If directional peak hour project trips along the mainline exceed 150 vehicles, a capacity analysis of the mainline segment is required. For purposes of the CMP, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C ≥.0.02), causing LOS F (V/C > 1.00); if the facility is already at LOS F, a significant impact occurs when

the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C ≥ 0.02).

Accidents and Emergency Access

A significant impact with respect to accidents would be identified if, as a result of the proposed project, there were anticipated to be a substantial increase to the annual rate of transportation-related fatalities on the transportation network in the study area.

IMPACT ASSESSMENT

Traffic Forecast Methodology

Traffic volume forecasts were developed through the use of the 2008 Southern California Association of Governments (SCAG) Transportation Demand Model; hereafter referred to as the SCAG Model. Travel forecasting models are mathematical models that describe the relationships between land use and demographics, causes of personal travel, and the resultant amount and location of that travel. The SCAG Model was statistically derived from observations of individual travel choices obtained through extensive surveys of the region's travel characteristics of travelers and their households.

The SCAG Model includes five primary components: 1) Traffic Analysis Zones, 2) trip generation, 3) trip distribution, 4) mode choice, and 5) assignment. The following summarizes each of these key components as they are used by the SCAG Model.

Traffic Analysis Zones (TAZs)

The TAZ system is the fundamental cornerstone of modeling analysis. Each TAZ is a geographic area containing quantities and types of housing and employment, along with corresponding socioeconomic data (SED). The modeling process uses this information to build person trip origin and destination relationships between TAZ's. Each TAZ produces and attracts person trips (resulting in Trip Generation), with each person trip having a unique origin and destination (Trip Distribution). The means by which each trip reaches its destination (Mode Choice), and the routes and transportation facilities used to get there (Trip Assignment) are then developed.

Trip Generation

Trip generation is the process of defining the person trip productions and attractions for each TAZ, before considering where the trips will go and how they will get to their destination. Each production and each attraction individually represent half of a trip or a "trip end". For each production there must be an equivalent attraction to make a complete trip. The SCAG Model calculates the specific quantities and types of productions and attractions based on the SED inputs. The SED inputs for the SCAG Model were updated to reflect the 2035 conditions anticipated for the project, in accordance with market development forecasts anticipated to occur under the proposed project (see **Appendix A2**). The SED outside of the project area reflects the SCAG Model assumptions for year 2035. To reflect 2035 conditions without the updated WCRCCSP, the entire study area (including the WCRCCSP area) uses the Year 2035 SCAG

SED assumptions. The SED inputs for the trip generation component of the SCAG Model are as follows:

- Total Population, Employed Population
- Single and Multi Family Households
- Average Household Size
- Retail, Service, and Basic Employment
- Median Household Income
- College and Elementary and High School Enrollment
- Employees (Retail, Service, and Other) by Income Group (Low, Middle, High)

The trip generation component of the SCAG Model divides trips into the following 10 trip purposes (productions and attractions) by Traffic Analysis Zone (TAZ):

- Home-Based Work-Direct by Low Income
- Home-Based Work-Direct by Middle Income
- Home-Based Work-Direct by High Income
- Home-Based School
- Home-Based University
- Home-Based Shop
- Home-Based Recreational
- Home-Based Other
- Work-Based Other Trips
- Other-Based Other Trips

The number of person-trips generated in each TAZ for an average weekday is identified based on trip generation (production and attraction) modeling. The trip generation model applies trip rates by trip purpose to the number of households in each TAZ.[6] Daily trip generation in a TAZ is estimated separately for each of the trip purposes listed above, using a series of cross-classification models.[7] The cross classification models use the number of households in each TAZ to identify daily trips. To do this, the models apply trip rates (person trips per household) to the number of households in each zone, and in each household category by household income group.[8]

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6 The term "trip rates" here refers specifically to the SCAG Model person trip rates, as they are inherent to the SCAG Model. It should be noted that the vehicle trip rates often associated with traffic studies using *Institute of Transportation Engineers Trip Generation* (ITE) are not used in this process, and as such are not suitable for comparison with SCAG Model rates. As this study employs the use of the SCAG Model for transportation modeling, the SCAG Model person trip rates are inherently assumed in all analyses.

7 *2003 SCAG Model Validation and Summary Report,* Appendix C, Tables C1-C10, January 2008.

8 For the 2035 No Project assumptions, SCAG income categories for the WCRCCSP area were left unchanged.

Trip attractions are estimated by the SCAG Model through a set of equations that were calibrated based on data from the Year 1990 SCAG Household Survey.

At this step of the modeling process, trip production and trip attraction estimation procedures by trip type generally result in totals that do not match. Therefore, the trip generation component of the SCAG Model has an internal process by which it balances trip productions and trip attractions by trip purpose. This balancing process is used to ensure all modeled trip productions can be paired with a matching trip attraction during the trip distribution process.

Trip Distribution

Once trip generation is calculated by the SCAG Model, the trip distribution process can take place. Trip distribution is the process of linking trip ends (productions and attractions) between TAZs. The purpose of this process is to take a trip production at one TAZ and pair it with an equivalent trip attraction at another TAZ. The SCAG Model uses a gravity model to pair a single trip production at one TAZ with a trip attraction at another TAZ. The gravity model creates a force of attraction between TAZs that is proportional to the total trip ends (productions and attractions) in both the zone of production and in the zone of attraction. This means that a TAZ with a large amount of trip attractions will be a stronger force of attraction than a TAZ with less total attractions. In addition, friction factors of time and cost to travel between the two zones are also applied to assess the final probability that two trip ends will connect. A TAZ may also have internal trips if a trip production can pair with a matching trip attraction without leaving the TAZ. Such internal capture of trips is highly desirable from transportation planning perspective for its greater efficiency and higher rates of walking, transit and other non-auto mode shares. As this study will show, the rates of internal trip capture are shown by the SCAG Model to be increased by high-density mixed use development, as proposed in the WCRCCSP.

Mode Choice

Five separate mode choice models exist within the SCAG Model, and were derived from regional travel data. The following five trip purposes were modeled for peak and off-peak periods:

- Home-Based Work Trips
- Home-Based School Trips
- Home-Based Other Trips
- Work-Based Other Trips
- Other-Based Other Trips

The 2035 With Project assumptions were based on the 2035 WCSP Market Study, Appendix A2.

Traffic Assignment

The traffic assignment process builds upon the results of the trip distribution process and the mode choice process, which together defined the origins and destinations of trips, their mode of travel, but not their specific trip route. Using the defined arterial roadway network and transit network, the traffic assignment process allocates trips to roadways and transit networks. The traffic assignment model process takes into consideration potential route lengths and their travel times when assigning trips to the network. In this way the model considers factors which may impede travel; such as congestion, roadway classification, and speed limits. By doing so, the model ensures that the route selected for each trip reasonably reflects the path of least resistance, that is, the path most likely to be chosen by the transportation user, given the options. The final results after the traffic assignment process are balanced daily roadway volumes along roadway segments and transit networks.

SCAG Model Refinement

For the purposes of this study, it was necessary to refine and adjust the original SCAG Model to reflect existing and future conditions within the study area. These refinements are separate from the post-processing methodology described later, as well as the modification of the SED and land use assumptions inherent in the project description and discussed above. The steps taken to refine the SCAG Model are described below:

Refinement of Traffic Analysis Zones (TAZs): In the SCAG Model, a TAZ is a geographic area with defined land use types and quantities within its boundaries. Trips across all modes of travel are produced by and attracted to TAZs, dependent on their land use types and quantities. Originally, the SCAG Model defined the WCRCCSP area roughly by four large TAZ's. This gave a much coarser and more consolidated description of development than was needed to accurately project traffic across all 152 study intersections. To address this, the four original TAZs within the existing WCSP area were split into a total of 26 smaller TAZs for detailed trip assignment and distributions across the study intersections. **Figure 4.12-8** shows the final 26 TAZs that comprise the WCRCCSP area for purposes of analysis.

Relocation of Centroid Connectors: A centroid connector represents site access points where trips generated by a TAZ are directly loaded onto the immediate transportation network. Within the study are, centroid connectors were originally connected directly to intersection nodes. While this approach is appropriate for regionally accurate results, it did not provide the level of detail necessary in this study. For this reason, it was necessary to move the existing centroid connectors from their original loading points at intersection nodes to new mid-block loading points. In addition, new mid-block centroid connectors were also added for the new TAZs that resulted from the TAZ refinement.

Updates to Transit and Roadway Networks: The transit and roadway networks assumed for existing and future 2035 conditions in the SCAG Model were reviewed and updated for consistency with field-verified existing conditions and known committed projects. Major transit and roadway improvements assumed to be completed in both the 2035 With Project and 2035 No Project analyses are:

- MTA Orange Line Bus Rapid Transit extension north from Warner Center to the Chatsworth Metrolink station.
- Victory Boulevard widened to four through lanes in each direction between Topanga Canyon Boulevard and DeSoto Avenue.

The above model refinements were needed to reflect macro-level changes and shifts in background traffic due to transit service and roadway improvements. In addition, the refinement of the TAZ network allowed for the identification of specific micro-level impacts within Warner Center.

Mode Choice and Transit Ridership Adjustments: The mode choice distributions assumed in the SCAG Model were adjusted to account for walking, biking, and transit trip generation anticipated for the transit oriented development (TOD) included in the WCRCCSP. In general, a TOD is defined as compact, mixed-use development near transit facilities and high-quality walking environments. Characteristics of successful TODs include:

- Enhanced attractiveness and serviceability of transportation alternatives.
- Higher transit ridership and reduced traffic congestion, while creating a sense of community and place.
- Compact, mixed-use development near transit facilities and high-quality walking environments.
- Enhanced attractiveness and serviceability of transportation alternatives.

In order to capture the above TOD characteristics, a separate methodology was developed by which car trips were shifted to transit, walk, and bike trips. These car trip reductions were developed in two separate components:

- Transportation Demand Management (TDM) related car trip reductions.
- TOD transit related car trip reductions.

TDM Car Trip Adjustment: For each of the 26 TAZs within the WCRCCSP area, the specific type and quantity of land use was used to calculate the TDM component of the reduction in car trips. The TDM component was justified based on the existing WCSP TDM program and it's continuation through the life of the WCRCCSP. The car trip reduction rates for each type of land use were obtained from the existing WCSP and are defined in **Table 4.12-12**. Based on the mix of land uses within a TAZ, a weighted average TDM reduction was calculated for each TAZ in both the 2035 No Project and 2035 With Project scenarios. This analysis is included in **Appendix G.3** of this report.

TABLE 4.12-12:
TDM CAR TRIP REDUCTION RATES

Land Use Description	TDM Car Trip Reduction
Residential	6%
Office	11%
Retail	3%

Source: Appendix B-2, Warner Center Specific Plan, 1993.

TOD Mode Split Adjustment: For each of the 26 TAZ's within the WCRCCSP Area a TOD mode split adjustment was calculated based on proximity to Orange Line Bus Rapid Transit stations. Maximum transit mode shares for TOD developments were assumed to be 18% transit for office and/or retail land uses, and 27% transit for residential. For reasonableness, these transit mode share assumptions were developed through comparison with observed typical transit mode shares for other similar TODs. The consultant team referenced five major research efforts published in the past 4 years for use in development of the TOD mode share assumptions of this study:[9]

- *TCRP Report 128 Effects of TOD on Housing, Parking and Travel,* 2008*;*
- *Comparing Methodologies for Estimating Trip Internalization of Mixed Use Development,* 2007*;*
- *Quantifying TOD's Ability to Change Travel Behavior, ITE Journal,* November 2007*;*
- *Travel Characteristics of Transit-Oriented Development in California,* 2004; and,
- *The Pasadena Gold Line: Development Strategies, Location Decisions, and Travel Characteristics along a new Rail Line in the Los Angeles Region,* 2005.

The assumed maximum walking distances from transit in a TOD are: 1,320 feet for non-residential land uses and 2,000 feet for residential land uses. TAZs which had no portion of their area within the defined distance were not considered a part of a TOD and were not adjusted for TOD transit mode shares. TAZs with only a portion of their area within the maximum distance had TOD transit mode shares applied to only a proportional amount of their development. The maximum TOD walking distance radii are shown in **Figure 4.12-**9. (Note that every area in the new Specific Plan will be considered within a TOD due to the proposed new fourth Orange Line transit stop.)

An average transit rate for each TAZ was calculated based on the anticipated mix of land uses, and is included in **Appendix G.3**. The final result of the TOD and TDM calculations were combined to reach the total amount of car trips transferred to other modes.

For the 2035 No Project Alternative, the total car trips transferred to other modes is represented solely by the TDM car trip reduction rates shown in **Table 4.12-12**. For the 2035 With Project Alternative, both the TOD and TDM car trip reductions are applied. **Appendix G.3** identifies in detail the TOD car trip reduction assumptions, their transit trip equivalency, and the corresponding transit network of the Warner Center Specific Plan update.

[9] The applicable findings of each of these studies are summarized in **Appendix G.3**.

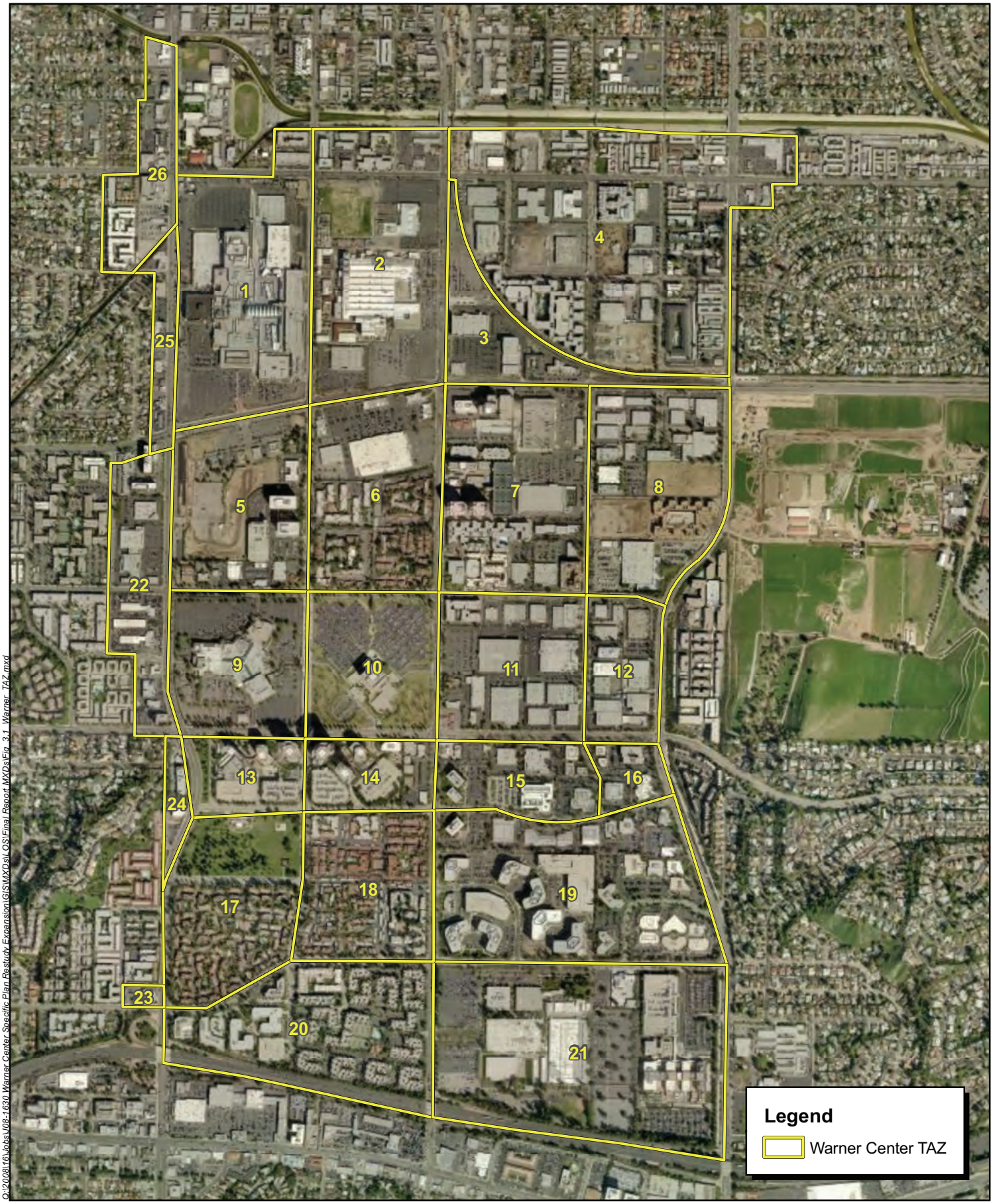

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Figure 4.12-8
Warner Center TAZs